

MILL-MAX MFG. CORP.

190 Pine Hollow Road Oyster Bay, NY 11771 www.mill-max.com Mill-Max Mfg. Corp. is a vertically integrated engineering and manufacturing company capable of producing over 100 million interconnect components a week, making us the largest manufacturer of precision-machined interconnect components in North America.

Established in 1971 by Roger Bahnik, Chairman and CEO, Mill-Max has a tradition of exercising total control from raw materials to finished product. Our 150,000 square foot plant, located in Oyster Bay, NY, houses all facilities including: engineering, customer service, sales & marketing, tooling, primary and secondary machining, stamping, gold and tin plating, injection molding, automatic assembly operations and strict process control, monitored by our experienced Quality Control Inspectors.

Mill-Max is particularly distinguished by its use of proprietary high speed turning machines. On our factory floor, hundreds of automated machines turn copper alloy rod and wire at high speed as cutting tools shape each pin. This method enables us to hold tolerances down to +/-.0005 inches. High-speed turning machines have the flexibility to be easily and quickly re-configured to make pins in different sizes and shapes. This makes the task of producing custom products simple.

In this Design Guide, you will find a wide variety of interconnect components. Our product line includes precision-machined spring-loaded connectors, SIP, DIP, PGA, BGA, and PLCC sockets, board-to-board interconnects and pin headers, PCB pins, receptacles and solder terminals, all available in SMT and through-hole. Cannot find what you need? Remember, Mill-Max specializes in application specific products. Contact one of our technical services engineers to discuss your specific requirements.

Mill-Max products are found in such diversified markets as:

- Automotive
- Backplanes
- Broadcasting Equipment
- Bar Code Scanners
- Cable Television
- Cellular Phones
- Computers
- Connectors
- DC/DC Converters
- Fiber Optics

- Industrial Controls
- Instrumentation
- Medical Cables
- Networking Systems
- Pagers
- Power Supplies
- Scanners
- Smoke Detectors
- Test Equipment
- Telecommunications

From order entry to shipping product, Mill-Max is focused on the total satisfaction of our customers. Through our sales representative organizations, Mill-Max products are sold directly, as well as through a network of 26 authorized distributors located throughout the United States and in various locations worldwide. It's this commitment to excellence that truly makes Mill-Max your source for Maximum Interconnect Solutions.

NOTE

- All dimensions in this design guide are in inches unless otherwise stated.
- All rights reserved. Copyright Mill-Max Mfg. Corp., 2009
- In the interest of improved design and performance, Mill-Max reserves the right to make changes in its specifications without prior notice.
- Orders subject to terms and conditions @ www.mill-max.com



CONNECTOR ASSEMBLIES



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DISCRETE PIN INTERCONNECTS





PIN RECEPTACLES

PAGES 126 - 165



Pin receptacles are individual component lead sockets primarily used for the plugging and unplugging of components on pc boards. Pin receptacles are made by press-fitting a pre-tooled "multi-finger" contact into a precision-machined shell. These receptacles will accept round pins ranging in diameter from .008" to .102", as well as square & rectangular component leads.

WRAPOST RECEPTACLES

PAGES 166 - 169



Wrapost receptacles are individual component lead sockets with .025" or .045" square pin termination for wire wrapped interconnection. Wrapost receptacles will accept round pins ranging in diameter from .015" to .047", as well as square & rectangular component leads.

PRINTED CIRCUIT PINS

PAGES 170 - 191



Printed circuit pins are machined, individual pins used for various plug-in applications and board to board interconnection. They are commonly fastened to pc boards by being press-fit, swaged (riveted) or soldered.

WRAPOST TERMINALS

PAGES 192 - 195



Wrapost terminals are individual pins with .025" or .045" square termination for wire wrapped interconnection. They are commonly fastened to pc boards by being press-fit, swaged (riveted) or soldered.

SOLDER TERMINALS

PAGES 196 - 212



Solder terminals are machined terminals used primarily for attaching wires to circuit boards. Turret, slotted and pin types are available. They are commonly swaged (riveted) and soldered to pc boards.

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GENERAL TECHNICAL SPECIFICATIONS



Pins & Receptacles:

Pins and receptacle shells are manufactured by precision high speed turning machines. The base materials for these components are copper alloys.

Receptacles are a two piece construction consisting of a plated contact press-fit into a plated shell. The contacts are stamped from beryllium copper strip.

Materials:

Pins & Receptacle Shells:

Brass Alloy 360 UNS C36000 ASTM-B16 (Up to a .250" diameter)

Phosphor Bronze alloy 544 UNS C54400 ASTM-B139 (Up to a .072" diameter)

Tellurium Copper alloy 145 UNS C14500 ASTM-B301 (Up to a .156" diameters)

See page 126 for a complete list of standard available stock diameters.

(For the availability of larger diameter materials contact Technical Services).

Contacts:

Beryllium copper UNS C17200 ASTM-B194 (For most applications)

Beryllium Nickel UNS N03360 (For high temperature applications)

(For individual contact specifications see pages 216-226) The materials listed above are all RoHS compliant.

<u>Dimensional, Mechanical & Environmental</u> Data:

Standard tolerances for pins and receptacle shells are:

Diameters +/- .002" Lengths +/- .005" Angles +/- 2°

Mechanical Life (Durability): Mill-Max receptacles are capable of 1000 minimum insertion/extraction cycles for a broad range of applications. Mating pin size, shape and finish along with application specific variables will affect the life of a contact.

Contact Forces: See individual contact specifications on pages 216-226.

Environmental Data:

- Operating temperature range: -55/+125° C

- Vibration (No electrical discontinuity

Greater than 1 µs): 10-2000 HZ, 15 G

- Shock (No electrical discontinuity

Greater than 1 µs): 50 G

Electrical data is dependent on the contact used in the receptacle. See page 214 for free air current ratings of the contacts.

Platings:

GOLD per ASTM B 488 & MIL-G-45204, Type 1, Code C SILVER per ASTM B 700, Grade B, Class S TIN per ASTM B 545, Type 1
TIN/LEAD (93/7) per ASTM B 545
ELECTRO-SOLDER (60/40) per ASTM B 579, Bright
NICKEL per SAE-AMS-QQ-N-290
ELECTROLESS NICKEL per MIL-C-26074
COPPER per SAE-AMS-2418

Connectors:

Connectors are headers, sockets and interconnects. They consist of pins, receptacles or spring pins assembled into thermoplastics or FR-4 epoxy laminate insulator bodies. They are available in DIP, SIP, strip and PGA packages in grids of .050", .070", 2 mm, .100" and .100" interstitial for PGA's.

Electrical Data:

SERIES: 100-700 800 830 850 - Rated current (Amps): 1 3 3 1 - Rated voltage: 100 VRMS/150 VDC - Contact resistance: 10 m Ω max. - Insulation resistance: 10.000 M Ω min. - Dielectric strength: 1000 VRMS min. (700 VRMS min. for series 117 Shrink DIP) - Air and creepage distance (inch.):

028 033/1

.028 .033/.028 .020 .016/.020

(.012 for series 117 Shrink DIP)

Capacitance(pF max): .8 1 1

Electrical data above does not apply to BGA, PLCC, USB or Spring-Loaded connectors. Electrical data for these products can be found on the following pages: BGA – Page 113; PLCC - Page 113; USB - Pages 121 & 122; Spring-Loaded connectors – Pages 6 - 12.

Operating temperature range: -55/+125° C

General tolerances for assembled connector products:

- Lengths: +/- .010"
- Connector Flatness: .005" (up to 1' in length)
- Co-planarity of SMT Connectors: .005" (up to 1' in length)
- For connectors exceeding 1" in length the flatness /co-planarity may exceed .005". Please contact Technical Services for more information.

(Note: Specifications and tolerances are provided wherever possible. Due to the wide variety of connectors Mill-Max offers, the specific tolerances vary from product to product. If you need information regarding the tolerance of a particular part, please contact technical services.)

GENERAL TECHNICAL SPECIFICATIONS



Materials:

Insulator Bodies:

Standard material is glass filled thermoplastic polyester (PCT), self extinguishing, rated UL 94 V-0.

Some surface mount, pin grid array and spring pin connector insulators are molded from high temperature Nylon 46, rated UL 94 V-0.

FR-4 Epoxy laminate is a thermoset material used in custom insulators and high temperature applications. It is especially useful because of its low Temperature Coefficient of Expansion (TCE). See chart below:

TCE for molded insulator	30 ppm/° C
TCE for 4-Layer PCB	13 ppm/° C
TCE for unclad epoxy	12 ppm/° C

The above insulator materials are all suitable for lead free soldering processes up to 260° C.

For complete material properties of plastics used by Mill-Max see page 227.

For inquiries regarding other insulator materials, please contact Technical Services.

Spring Pins:

Spring pins consist of precision-machined brass components assembled together with beryllium copper or stainless steel springs. External components and internal springs are gold plated. Spring pins are designed to be used at mid-stroke. Over compression can cause damage restricting the movement of the plunger.

Materials:

External Components (Body, Piston, Base, Tail): Brass Alloy 360 UNS C36000 ASTM-B16

Springs:

Beryllium copper UNS C17200 ASTM-B197 Stainless Steel 302

Dimensional, Mechanical & Environmental Data:

Standard tolerances for spring pins at initial height:

Diameters +/- .002" Lengths +/- .006"

Mechanical life (Durability): 1,000,000 cycles minimum **Force tolerance:** +/- 20 g (See individual spring pin data

on pages 6- 17 for forces) Stroke tolerance: +/- .005"

Environmental Data:

- Operating temperature range: -55/+125° C

- Vibration (No electrical discontinuity

Greater than 1 µs): 0-200 HZ, 10G

- Shock (No electrical discontinuity

Greater than 1 µs): 50 g

For complete material properties of metals, platings and plastics used by Mill-Max see page 227.

Where applicable, Mill-Max products and procedures are designed to meet the following standards:

MIL-STD 1916 - DOD preferred methods for acceptance of product

MIL-STD 202G - Test methods for electronic and electrical component parts

MIL-STD 45662 - Calibration system requirements, or ISO 10012
MIL-F-14072 - Finishes for ground based electronic equipment
MIL-I-45208 - Inspection system requirements, or equivalent

MIL-S-83505 - General specification for sockets (lead, electronic components)

MIL-S-83734 - General specification for DIP sockets

In the interest of improved design, quality and performance, Mill-Max reserves the right to make changes in its specifications without prior notice.





SPRING-LOADED CONNECTORS

Mill-Max Spring-Loaded Connectors are ideal for a wide range of applications, from portable data acquisition units and mobile communication to medical and military equipment applications. Their unique design can be the perfect answer for many situations, establishing electrical continuity on virtually any surface including problematic vibratory environments. Unlike the fixed mating height created by pins and receptacles, spring-loaded connectors are able to compensate for floating heights and uneven mating surfaces, thus maintaining a reliable electrical connection.

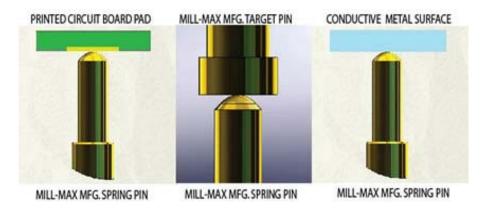
When strategically placed within an assembly and utilized correctly (shielded from over compression and direct side load forces,) miniature spring-loaded connectors can provide a reliable connection up to a million cycles.

Some typical applications include:

- The internal battery connection in portable instruments, or as the external battery connection for charging these instruments (docking stations.)
- As a method for stacking printed circuit boards in an assembly. Utilizing spring pin
 connectors is a convenient approach to creating mezzanine-tiered board modules that
 can be assembled and disassembled quickly.
- Blind-mating applications. The spring pin piston need only make contact with its mating surface. This is typically a land or pad that is larger than the plunger diameter. Compare this to a pin and socket connection where alignment must be more precise for the pin to enter the socket.

Mill-Max Spring-Loaded Connectors can mate to the following surfaces:

- A conductive input/output pad found on the instrument pack itself.
- A gold-plated land on a circuit board. A hard gold over nickel plated surface is recommended for the mating surface. This is the same as would be used for the printed circuit fingers associated with card edge connectors.
- Individual Mill-Max gold-plated nail head pins which can be soldered to the mating circuit board to serve as targets.
- Mill-Max Target Connectors which provide a large .070" diameter flat, gold-plated circuit path to the board.



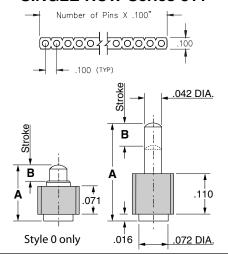


SPRING-LOADED CONNECTORS Surface Mount, Low Profile Single and Double Row Strips

- Modular contacts for use on .100" grid, available in five heights from .137" to .236", supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a long stroke relative to the low profile of the assembly.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- Both 811 & 813 series, contact styles 1 thru 4, are available on 32mm wide carrier tape for pick and place assembly per EIA-481. See page 9 for strip lengths available and ordering information.

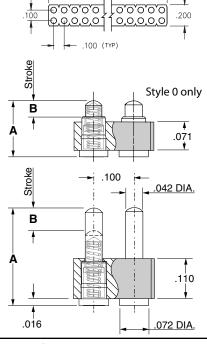


SINGLE ROW Series 811



DOUBLE ROW Series 813

Number of Pins X .100" / 2



Ordering Information

Single Row Series 811

811-22-0XX-30-00X-101

Specify # of contacts \$\times 01-64\$

Double Row Series 813

813-22-0XX-30-00X-101

Specify contact style 0-4

Specify # of contacts → 04-72

For 811 & 813 Tape & Reel packaging See page 9

CONTACT STYLE	INITIAL HEIGHT A	MAX. STROKE B
0	.137	.039
1	.177	.045
2	.197	.055
3	.217	.055
4	.236	.055

Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold

over 100µ" nickel

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic, rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams Spring force @ mid stroke (B/2): 60 grams

Durability: 1,000,000 cycles min.

Coplanarity: .005" (Single Row up to 10 pins; Double Row up to 20 pins) For higher pin counts contact Tech Support.

Electrical:

Voltage rating: 100Vrms/150Vdc

Current rating: 2A (continous), 3A (peak) per contact

Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.



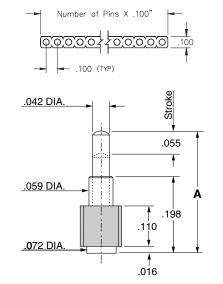


SPRING-LOADED CONNECTORS **Surface Mount, High Profile** Single and Double Row Strips

- Modular contacts for use on .100" grid, available in ten heights from .255" to .430", supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a long stroke relative to the low profile of the assembly.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- Both 812 & 814 series are available on 32mm or 44mm wide carrier tape for automated pick and place assembly per EIA-481. See page 9 for strip lengths available and ordering information.

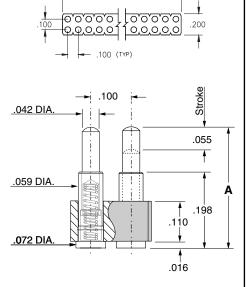


SINGLE ROW Series 812



DOUBLE ROW Series 814

| Number of Pins X .100" / 2



Ordering Information

Single Row Series 812

812-22-0XX-30-00X-101

Specify contact style 0-9

Specify # of contacts \ → 02-64

Double Row Series 814

814-22-0XX-30-00X-101

► Specify contact style 0-9

Specify # of contacts → 04-72

For 812 & 814 Tape & Reel packaging See page 9

CONTACT STYLE	INITIAL HEIGHT A	CONTACT STYLE	INITIAL HEIGHT A
0	.255	5	.350
1	.275	6	.370
2	.295	7	.390
3	.315	8	.410
4	.335	9	.430

Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold over 100µ" nickel

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams Spring force @ mid stroke (.0275): 60 grams

Durability: 1,000,000 cycles min.

Coplanarity: .005" (Single Row up to 10 pins; Double Row up to

20 pins) For higher pin counts contact Tech Support.

Electrical:

Voltage rating: 100Vrms/150Vdc

Current rating: 2A (continous), 3A (peak) per contact

Contact resistance: $20m\Omega$ max. Insulation resistance: 10,000M Ω min. Dielectric strength: 700Vrms min.

Capacitance: 1pF max.

7

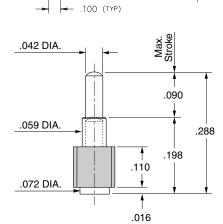




SPRING-LOADED CONNECTORS Surface Mount, High Profile Single and Double Row Strips

- Modular contacts for use on .100" grid, available in a height of .288", supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a .045" mid. stroke and a .090" max. stroke.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- 819 & 820 series contact strips are designed for placement onto a Ø .082" solder pad prior to reflow soldering.





Ordering Information

819-22-0XX-30-001101 Specify # of contacts 01-64

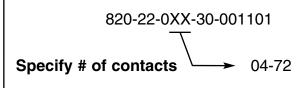
Double Row Series 820

Single Row Series 819

Fig. 2

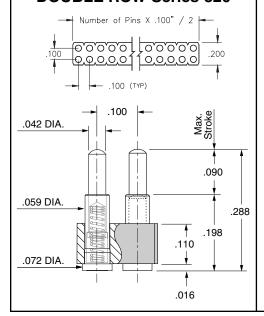
Materials:

Fig. 1



Technical Specifications

DOUBLE ROW Series 820



Contact piston & Base: Machined copper alloy plated 20µ" gold

over 100µ" nickel

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height: 25 grams Spring force @ mid stroke: 60 grams Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

Current rating: 2A (continous), 3A (peak) per contact

Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.



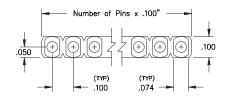


SPRING-LOADED CONNECTORS Surface Mount, Horizontal Mount Single Row Strips

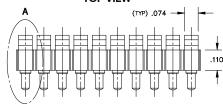
- Modular contacts for use on .100" grid, supplied in single row contact strips. Piston action is parallel to the board surface.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a .045" mid. stroke & .090" max. stroke.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- 810 series contact strips are designed for manual placement onto solder pads.



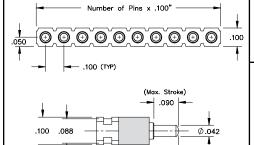
Single Row Series 810



TOP VIEW



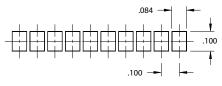
FRONT VIEW



____ .297 ____ **DETAIL 'A'**

Suggested P.C.B. FOOTPRINT

080



Coplanarity .005". For Pin Counts >10 positions consult Technical Support.

Ordering Information

Series 810

Single Row Surface Mount



For RoHS compliance select \diamondsuit plating code.

Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold over 100µ" nickel.

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height: 25 grams Spring force @ mid stroke: 60 grams Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

Current rating: 2A (continous), 3A (peak) per contact

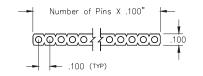
Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.

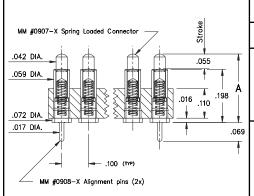
SPRING-LOADED CONNECTORS **Surface Mount with Alignment pins Single and Double Row Strips**

- Modular contacts for use on .100" grid, available in ten heights from .255" to .430", supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a .0275 mid stroke & .055 max stroke.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- 812 & 814 series contact strips are designed for manual placement into Ø .023±.003" plated-thruholes in the circuit board prior to intrusive reflow soldering.

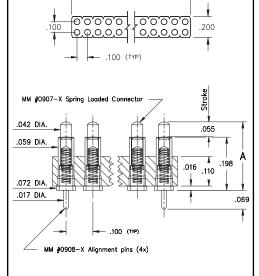


Single Row Series 812...01X101





Double Row Series 814...01X101 Number of Pins X .100" / 2



Ordering Information

Single Row Series 812...01X101

812-22-0XX-30-01X-101

► Specify contact style 0-9 Specify # of contacts **►** 03-64

Double Row Series 814...01X101

814-22-0XX-30-01X-101

➤ Specify contact style 0-9 Specify # of contacts **►** 06-72

CONTACT STYLE	INITIAL HEIGHT A	CONTACT STYLE	INITIAL HEIGHT A
0	.255	5	.350
1	.275	6	.370
2	.295	7	.390
3	.315	8	.410
4	.335	9	.430

Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold

over 100u" nickel

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams Spring force @ mid stroke (B/2): 60 grams

Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

Current rating: 2A (continous), 3A (peak) per contact

Contact resistance: $20m\Omega$ max. Insulation resistance: $10.000M\Omega$ min. Dielectric strength: 700Vrms min.

Capacitance: 1pF max.

2516-922-6000

SPRING-LOADED CONNECTORS **Surface Mount Carrier Tape & Packaging**

Series 811, 812 813, 814

Ordering Information for Series 811/812/813/814 in Carrier Tape **Single Row Series 811 Double Row Series 813** 811-22-0XX-30-00X-191 813-22-0XX-30-00X-191 Specify contact style 0-4 - Specify contact style 0-4 ➤ Specify # of contacts 02 - 08 ➤ Specify # of contacts 04 - 16 (32mm wide tape, 400 parts per 13" reel) (32mm wide tape, 400 parts per 13" reel) **Single Row Series 811 Double Row Series 813** 811-22-0XX-30-00X-191 813-22-0XX-30-00X-191 Specify contact style 1-4 Specify contact style 1-4 ➤ Specify # of contacts 09 - 12 ➤ Specify # of contacts 18 - 24 (44mm wide tape, 200 parts per 13" reel) (44mm wide tape, 200 parts per 13" reel) **Double Row Series 814** Single Row Series 812 812-22-0XX-30-00X-191 814-22-0XX-30-00X-191 Specify contact style 0-2 Specify contact style 0-2 → Specify # of contacts 02 - 08 > Specify # of contacts 04 - 16 (32mm wide tape, 400 parts per 13" reel) (32mm wide tape, 400 parts per 13" reel) **Single Row Series 812 Double Row Series 814** 812-22-0XX-30-00X-191 814-22-0XX-30-00X-191 Specify contact style 0-2 Specify contact style 0-2 ➤ Specify # of contacts 09 - 12 > Specify # of contacts 18 - 24 (44mm wide tape, 200 parts per 13" reel) (44mm wide tape, 200 parts per 13" reel) Single Row Series 812 **Double Row Series 814** 812-22-0XX-30-00X-191 814-22-0XX-30-00X-191 Specify contact style 3-9 Specify contact style 3-9 ➤ Specify # of contacts 02 - 12 ➤ Specify # of contacts 04 - 24 (44mm wide tape, 200 parts per 13" reel) (44mm wide tape, 200 parts per 13" reel) 32mm wide, 9mm deep or 44mm wide, 13mm deep 32mm wide, 9mm deep or 44mm wide, 13mm deep

VACUUM PICK-UP CLIP

REMOVED AFTER SOLDERING

VACUUM PICK-UP CLIP

REMOVED AFTER SOLDERING

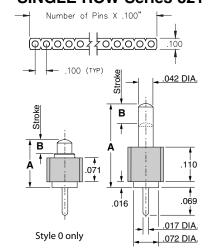


SPRING-LOADED CONNECTORS Through Hole Mount Single and Double Row Strips

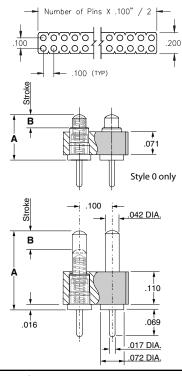
- Modular contacts for use on .100" grid, available in five heights from .137" to .236", supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a long stroke relative to the low profile of the assembly.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- 821 & 823 series contact strips are designed for manual placement into Ø.022±.003" plated-thruholes in the circuit board prior to hand, wave or reflow soldering.



SINGLE ROW Series 821



DOUBLE ROW Series 823



Ordering Information

Single Row Series 821

821-22-0XX-10-00X-101

Specify # of contacts

Specify # of contacts

02-64

Double Row Series 823

823-22-0XX-10-00X-101

Specify # of contacts

Specify # of contacts

04-72

CONTACT STYLE	INITIAL HEIGHT A	MAX. STROKE B
0	.137	.039
1	.177	.045
2	.197	.055
3	.217	.055
4	.236	.055

Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold

over 100µ" nickel

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams Spring force @ mid stroke (B/2): 60 grams

Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

Current rating: 2A (continous), 3A (peak) per contact

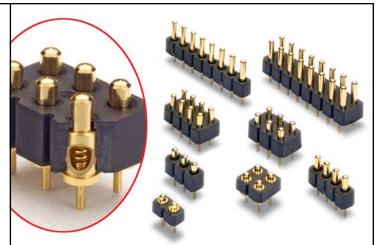
Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.



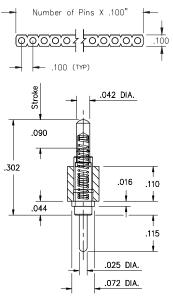


SPRING-LOADED CONNECTORS Through Hole Mount Single and Double Row Strips

- Modular contacts for use on .100" grid, available in a height of .302", supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a .045 mid stroke & .090 max stroke.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- 825 & 827 series contact strips are designed for manual placement into Ø .030±.003" plated-thruholes in the circuit board prior to hand, wave or reflow soldering.



SINGLE ROW Series 825



Ordering Information

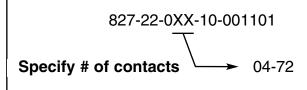
825-22-0XX-10-001101 Specify # of contacts 02-64

Single Row Series 825

Double Row Series 827

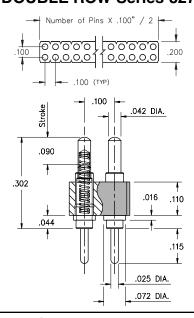
Fig. 2

Fig. 1



Technical Specifications

DOUBLE ROW Series 827



Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold

over 100µ" nickel

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams Spring force @ mid stroke (B/2): 60 grams

Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

Current rating: 2A (continous), 3A (peak) per contact

Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.



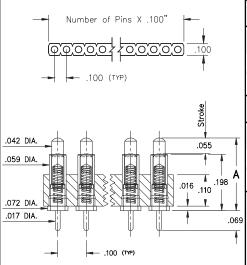
SPRING-LOADED CONNECTORS Through Hole Mount Single and Double Row Strips

Series 816...00X101 818...00X101

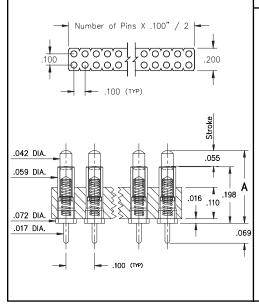
- Modular contacts for use on .100" grid, available in ten heights from .255" to .430", supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a .0275 mid stroke & .055 max stroke.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- 816 & 818 series contact strips are designed for manual placement into Ø .023±.003" plated-thruholes in the circuit board prior to intrusive reflow soldering.



Single Row Series 816...00X101



Double Row Series 818...00X101



Ordering Information

Single Row Series 816...00X101

816-22-0XX-10-00X101

Specify # of contacts

02-64

Double Row Series 818...00X101

818-22-0XX-10-00X101

Specify # of contacts

04-72

CONTACT STYLE	INITIAL HEIGHT A	CONTACT STYLE	INITIAL HEIGHT A
0	.255	5	.350
1	.275	6	.370
2	.295	7	.390
3	.315	8	.410
4	.335	9	.430

Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold

over 100µ" nickel

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams Spring force @ mid stroke (B/2): 60 grams

Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

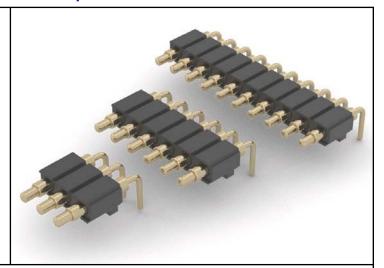
Current rating: 2A (continous), 3A (peak) per contact

Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.

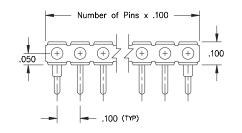


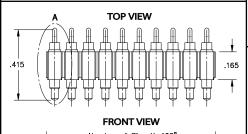
SPRING-LOADED CONNECTORS Right Angle Mount Single Row Strips

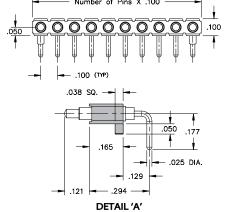
- Modular contacts for use on .100" grid, available in a height of .294", supplied in single contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a .045" mid stroke and .090" max stroke.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for wave and reflow soldering processes.
- 829 series contact strips are designed for manual placement into Ø .032±.003" plated-thru-holes in the circuit board prior to hand, wave or reflow soldering.



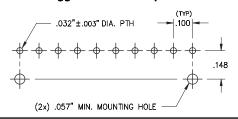
Single Row Series 829







Suggested P.C.B Footprint



Ordering Information

Series 829

Single Row Right Angle

829-22-0_ _-20-001101

Specify # of pins 02-10



For RoHS compliance select \diamondsuit plating code.

Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold

over 100µ" nickel.

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height: 25 grams Spring force @ mid stroke: 60 grams Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

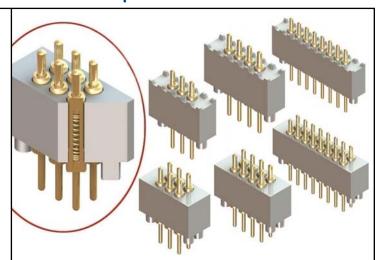
Current rating: 2A (continous), 3A (peak) per contact

Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.

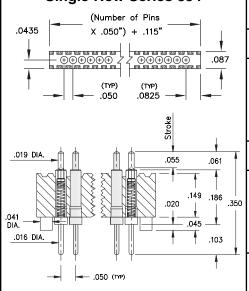
SPRING-LOADED CONNECTORS .050" Grid Through Hole Mount Single and Double Row Strips

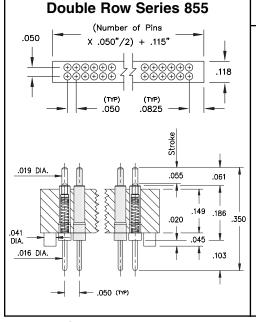
Series 854...10-001101 855...10-001101

- Modular contacts for use on .050" grid, supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a .0275" mid stroke & .055" max stroke.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- 854 & 855 series contact strips are designed for manual placement into Ø .023±.003" plated-thruholes in the circuit board.



Single Row Series 854





Ordering Information

Series 854

Single Row Through Hole Mount

Series 855

Double Row Through Hole Mount

For Electrical, Mechanical & Enviromental Data, See pg. 4.1

For RoHS compliance select \diamondsuit plating code.

Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20µ" gold over 100µ" nickel.

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams Spring force @ mid stroke (B/2): 60 grams

Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

Current rating: 2A (continous), 3A (peak) per contact

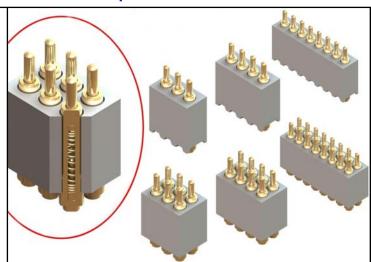
Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.



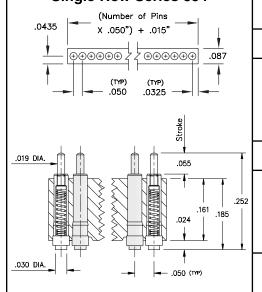
SPRING-LOADED CONNECTORS .050" Grid Surface Mount, High Density Single and Double Row Strips

Series 854...30-001101 855...30-001101

- Modular contacts for use on .050" grid, supplied in single and double row contact strips.
- Precision-machined piston / base and gold plated components assure a 1,000,000 min. cycle life.
- Pistons have a .0275" mid stroke & .055" max stroke.
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak.
- High temperature thermoplastic insulators are suitable for surface mount processes.
- 854 & 855 series contact strips are designed for manual placement onto .040" Ø solder pads.



Single Row Series 854



Ordering Information

Series 854 Single Row Surface Mount

Series 855 Double Row Surface Mount

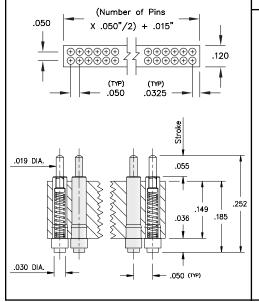
855-22-0_ _-30-001101

Specify # of pins 04-46



For RoHS compliance select \diamondsuit plating code.

Double Row Series 855



Technical Specifications

Materials:

Contact piston & Base: Machined copper alloy plated 20μ " gold over 100u" nickel.

Spring: Beryllium copper plated 10µ" gold

Insulator: High temp. thermoplastic rated UL94 V-0

Mechanical:

Spring force @ initial height (A): 25 grams Spring force @ mid stroke (B/2): 60 grams

Durability: 1,000,000 cycles min.

Electrical:

Voltage rating: 100Vrms/150Vdc

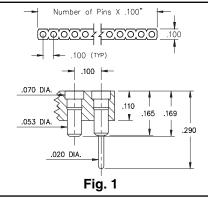
Current rating: 2A (continous), 3A (peak) per contact

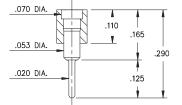
Contact resistance: $20m\Omega$ max. Insulation resistance: $10,000M\Omega$ min. Dielectric strength: 700Vrms min.



SPRING-LOADED CONNECTORS Series 319, 330, 399 .100" Grid Target Connectors for Spring-Loaded Assemblies **Single Row**







.072 DIA.

.053 DIA.

.018 DIA.

.072 DIA.

.053 DIA.

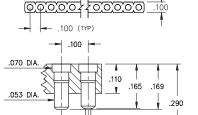
.034 DIA. .020 DIA.

.072 DIA.

.053 DIA.

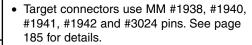
.038 DIA. HOLE

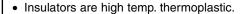
.100

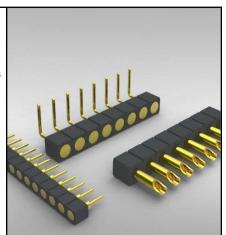


• Series 319, 330 and 399 single row strips may be cut to any length.









Ordering Information

- -¦ .125			
Ψ		Series 319041	SMT w/ Alignment Pins
Fig. 2	Fig. 1	319-10-1	30-041000
.110)	Specify # of pins	▶ 01-64
.382		Series 319001	Standard Solder Tails
.217	Fig. 2	319-10-1	00-001000
	3	Specify # of pins	→ 01-64
Fig. 3		Series 319002	Long Solder Tails
.110	Fig. 3	319-10-1	00-002000
.165	•	Specify # of pins	▶ 01-64
.567 -		Series 319005	Elevated Solder Tails
.126	Fig. 4	319-10-1	00-005000
Fig. 4	3	Specify # of pins	→ 01-64
		Series 330240	Solder Cups
.110	Fig. 5	330-10-1	10-240000
.290		Specify # of pins	▶ 01-64
.060 .090			Right Angle Solder Tails
-	Fig. 6	399-10-1	10-008000
.165 —		Specify # of pins	→ 01-64
110 -		_	^
.018 DIA176	For Elec Mechanical & E Data, Sec	Enviromental	RoHS 2002/95/EC

.220 Fig. 6 10

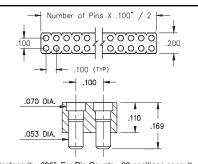
10 μ" Au

PLATING CODE =

Pin Plating



SPRING-LOADED CONNECTORS Series 419, 430, 499 .100" Grid Target Connectors for Spring-Loaded Assemblies **Double Row**



Coplanarity .005". For Pin Counts >20 positions consult Technical Support.

Fig. 1

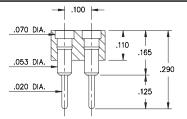
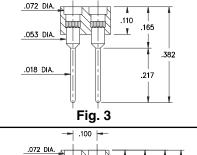
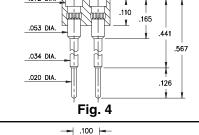
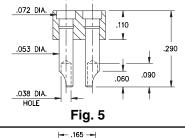
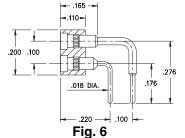


Fig. 2 .100 |-

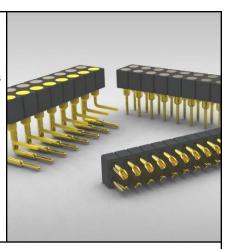








- · Series 419, 430 and 499 double row strips may be cut to any length.
- · Spring Target connectors present a large flat surface for making tangent connections to our standard .042" dia spring pin plungers. The target connectors provide an excellent gold plated conductive path back to the board mounted spring pin connector.
- Target connectors use MM #1938, #1940, #1941, #1942 and #3024 pins. See page 185 for details.
- · Insulators are high temp. thermoplastic.

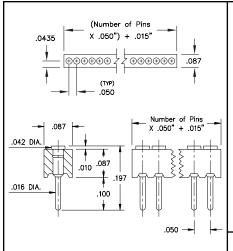


Ordering Information

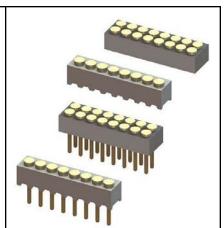
	Series 419041	Surface Mount
Fig. 1	419-10-2	230-041000
	Specify # of pins	→ 04-64
	Series 419001	Standard Solder Tails
Fig. 2	419-10-2	200-001000
	Specify # of pins	→ 04-64
	Series 419002	Long Solder Tails
Fig. 3	419-10-2	200-002000
	Specify # of pins	▶ 04-64
	Series 419005	Elevated Solder Tails
Fig. 4	419-10-2	200-005000
	Specify # of pins	→ 04-64
	Series 430240	Solder Cups
Fig. 5	430-10-2	210-240000
1 19. 0	Specify # of pins	▶ 04-64
	Series 499008	Right Angle Solder Tails
Fig. 6	499-10-2	210-008000
Fig. 6	499-10-2 Specify # of pins	210-008000
Fig. 6	Specify # of pins	1

PLATING CODE = 10 10 μ" Au Pin Plating **2** 516-922-6000

.050" Grid Target Connectors for Spring-Loaded Assemblies Single and Double Row



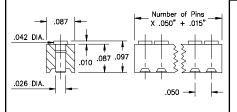
- Series 856, 857 single and double row strips may be cut to any length.
- Spring Target connectors present a large flat surface for making tangent connections to our standard .019" dia spring pin plungers. The target connectors provide an excellent gold plated conductive path back to the board mounted spring pin connector.
- Target connectors use MM #1933 and #1935 pins. See page 180 for details.
- Insulators are high temp. thermoplastic.



Standard Solder Tails

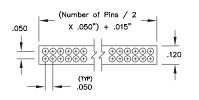
Fig. 1

Ordering Information



Coplanarity .005". For Pin Counts >20 positions consult Technical Support.

Fig. 2



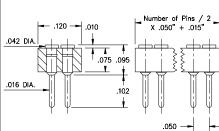
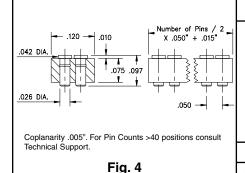


Fig. 3



Series 856051

Fig. 1 856-10-0_ _-10-051000

Specify # of pins 01-20

Series 856...051

Surface Mount

Specify # of pins 02-20

Series 857...051

Series 857...051

Standard Solder Tails

Fig. 3

Fig. 2

857-10-0_ _-10-051000

856-10-0 -30-051000

Specify # of pins 04-4

Fig. 4

857-10-0_ _-30-051000

Specify # of pins
→ 04-40

For Electrical, Mechanical & Enviromental Data, See pg. 4

PLATING CODE =	10		
Pin Plating	10 μ" Au		

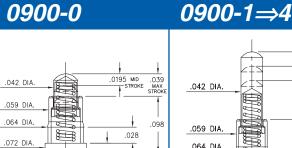
RoHS

Surface Mount



SPRING-LOADED CONNECTORS **Discrete Spring-Loaded Contacts**





0900-0-00-00-00-11-0

Short Stroke, Surface mount Lowest profile

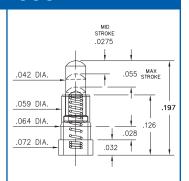
.016

.0275 MID STROKE .055 .064 DIA .106 .028 .072 DIA .016

Basic Part Number	Length A
0900-1	.177
0900-2	.197
0900-3	.217
0900-4	.236

0900-X-00-00-00-11-0

Standard Stroke, Surface mount Low profile



0934

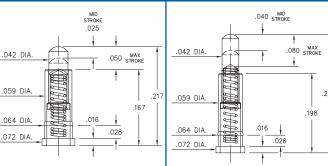
0934-0-15-20-74-14-26-0

Standard Stroke Surface mount

0936

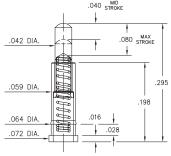
0928

0907-0⇒9



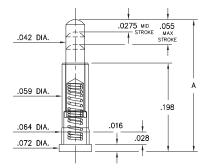
0936-0-15-20-75-14-11-0

Standard Stroke Surface mount



0928-0-15-20-77-14-11-0

Long Stroke Surface mount



Dasic Part	Lengin
Number	Α
0907-0	.255
0907-1	.275
0907-2	.295
0907-3	.315
0907-4	.335
0907-5	.350
0907-6	.370
0907-7	.390
0907-8	.410
0907-9	.430

Racic Part | Langth

0907-X-15-20-75-14-11-0

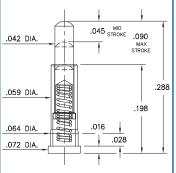
Standard Stroke, Surface mount High profile

0913

0925

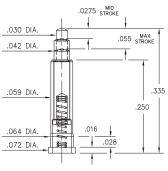
0927

0905



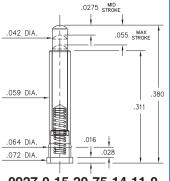
0913-0-15-20-77-14-11-0

Long Stroke Surface mount



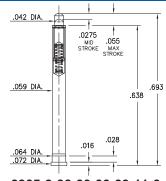
0925-0-15-20-73-14-26-0

Standard Stroke Surface mount



0927-0-15-20-75-14-11-0

Standard Stroke Surface mount



0905-0-00-00-00-11-0

Standard Stroke, Surface mount Highest Profile

ORDER CODE: 09XX - X - 15 - 20 - 7X - 14 - XX - 0

Spring Number

MATERIAL SPECIFICATIONS:

SLEEVE & PLUNGER MATERIAL: Copper Alloy

SPRING MATERIAL: Beryllium Copper

SLEEVE & PLUNGER FINISH: 20 µ" Gold over Nickel

SPRING FINISH: 10 μ " Gold over Nickel

DIMENSION IN INCHES:

TOLERANCES ON: LENGTHS: DIAMETERS: ±.002 ANGLES:



MECHANICAL & ELECTRICAL SPECIFICATIONS:

DURABILITY: 1,000,000 cycles CURRENT RATING: 2A continuous, 3A peak CONTACT RESISTANCE: $20 \text{ m}\Omega$ max.

SPRING NUMBER	Mid. STROKE	Max. STROKE	FORCE @ Mid. Stroke	Initial Force (Pre-load)
73	.0275	.055	60 g	25 g
74	.0275	.055	50 g	15 g
75	.0275	.055	60 g	25 g
77	.045	.090	60 g	25 g

73, 74, 75, 77 Springs are not Interchangeable



SPRING-LOADED CONNECTORS **Discrete Spring-Loaded Contacts**



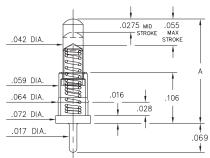


.039 MAX

.098

.0195 MID STROKE

.028



Basic Part Length Number 0906-1 .177 0906-2 .197 0906-3 .217 0906-4 .236

MID STROKE .0275 .055 MAX .042 DIA .059 DIA .199 .106 .064 DIA .072 DIA .017 DIA

0930

0906-0-15-20-76-14-11-0

.016

Short Stroke Solder mount in .018 min. mounting hole

0906-X-15-20-75-14-11-0

Standard Stroke

Solder mount in .018 min. mounting hole

0930-0-15-20-75-14-11-0 Standard Stroke

Solder Mount in .018 min. mounting hole

0914

.042 DIA

.059 DIA

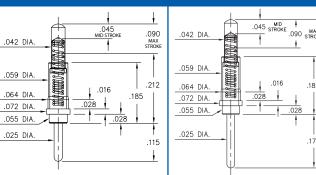
.064 DIA

.072 DIA

.017 DIA.

0932

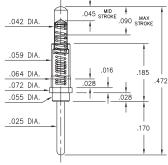
0908-0=



0914-0-15-20-77-14-11-0

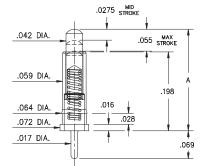
Long Stroke

Solder mount in .027 min. mounting hole Solder Mount in .027 min. mounting hole



0932-0-15-20-77-14-11-0

Long Stroke



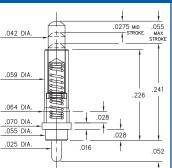
Basic Part	Length
Number	Α
0908-0	.255
0908-1	.275
0908-2	.295
0908-3	.315
0908-4	.335
0908-5	.350
0908-6	.370
0908-7	.390
0908-8	.410
0908-9	.430

0908-X-15-20-75-14-11-0

Standard Stroke Solder mount in .018 min. mounting hole

0980

0901 0929



0901-0-00-00-00-11-0

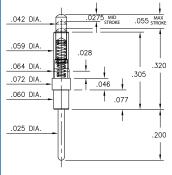
Standard Stroke

Solder mount in .027 min. mounting hole Solder Mount in .027 min. mounting Hole

.0275 MID STROKE .042 DIA .055 MAX .059 DIA .064 DIA .072 DIA. .046 .060 DIA .042 .025 DIA

0929-0-15-20-75-14-11-0

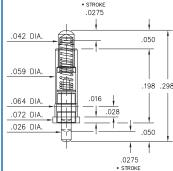
Standard Stroke



0922

0922-0-15-20-75-14-11-0

Standard Stroke Solder mount in .027 min. mounting hole



0980-0-15-20-75-14-11-0

Double action, *.055 Combined Stroke Mount between parallel circuit boards

ORDER CODE: 09XX - X - 15 - 20 - 7X - 14 - 11 - 0

Spring Number -

MATERIAL SPECIFICATIONS:

SLEEVE & PLUNGER MATERIAL: Copper Alloy

SPRING MATERIAL: Beryllium Copper

SLEEVE & PLUNGER FINISH: 20 µ" Gold over Nickel

SPRING FINISH: 10 μ " Gold over Nickel

DIMENSION IN INCHES:

TOLERANCES ON: LENGTHS: ±.006

DIAMETERS: ±.002 ANGLES:



MECHANICAL & ELECTRICAL SPECIFICATIONS:

DURABILITY: 1,000,000 cycles CURRENT RATING: 2A continuous, 3A peak

CONTACT RESISTANCE: $20 \text{ m}\Omega$ max.

SPRING	Mid.	Max.	FORCE @	Initial Force
NUMBER	STROKE	STROKE	Mid. Stroke	(Pre-load)
75	.0275	.055	60 g	25 g
76	.0195	.039	60 g	25 g
77	.045	.090	60 g	25 g

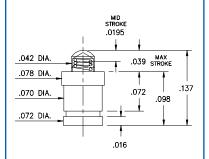


SPRING-LOADED CONNECTORS Discrete Spring-Loaded Contacts



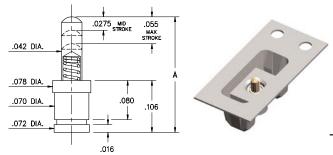
0910-0

0910-1⇒4



0910-0-57-20-76-14-11-0

Short Stroke, Surface mount Packaged on 16mm wide carrier tape: 1,500 parts per 13" reel.



0910-X-57-20-75-14-11-0

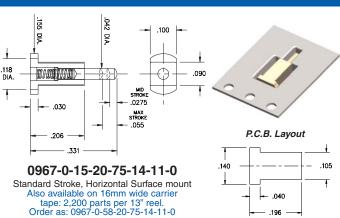
Standard Stroke, Surface mount
Packaged on carrier tape.
See chart for tape width and qty. per reel

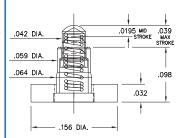
Basic Part Number	Length A
0910-1	.177
0910-2	.197
0910-3	.217
0910-4	.236

Basic Part Number	Tape Width	Quantity per Reel
0910-1	16mm	1,500
0910-2	24mm	1,100
0910-3	24mm	1,100
0910-4	24mm	1,100

0967

0990-0

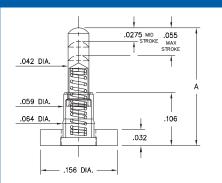




0990-0-50-20-76-14-11-0

Short Stroke, Surface mount Large Base

0990-1⇒4



Length A
.177
.197
.217
.236

0990-X-50-20-75-14-11-0

Standard Stroke, Surface mount Large Base

ORDER CODE: 09XX - X - XX - 20 - 7X - 14 - 11 - 0 Spring Number

MATERIAL SPECIFICATIONS:

SLEEVE & PLUNGER MATERIAL: Copper Alloy **SPRING MATERIAL:** Beryllium Copper

SLEEVE & PLUNGER FINISH: 20 µ" Gold over Nickel

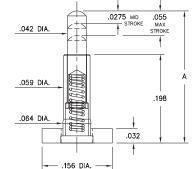
SPRING FINISH: 10 μ " Gold over Nickel

DIMENSION IN INCHES:

TOLERANCES ON: LENGTHS: ±.006 DIAMETERS: ±.002

DIAMETERS: ±.002 ANGLES: ± 2°

0997-0⇒9



Number	A
0997-0	.255
0997-1	.275
0997-2	.295
0997-3	.315
0997-4	.335
0997-5	.350
0997-6	.370
0997-7	.390
0997-8	.410
0997-9	.430

Basic Part | Length

0997-X-50-20-75-14-11-0

Standard Stroke, Surface mount Large Base

MECHANICAL & ELECTRICAL SPECIFICATIONS:

DURABILITY: 1,000,000 cycles **CURRENT RATING:** 2A continuous, 3A peak

CONTACT RESISTANCE: 20 m Ω max.

SPRING	Mid. Max.		FORCE @	Initial Force	
NUMBER	STROKE STROKE		Mid. Stroke	(Pre-load)	
75	.0275	.055	60 g	25 g	
76	.0195	.039	60 g	25 g	

75 & 76 Springs are not Interchangeable

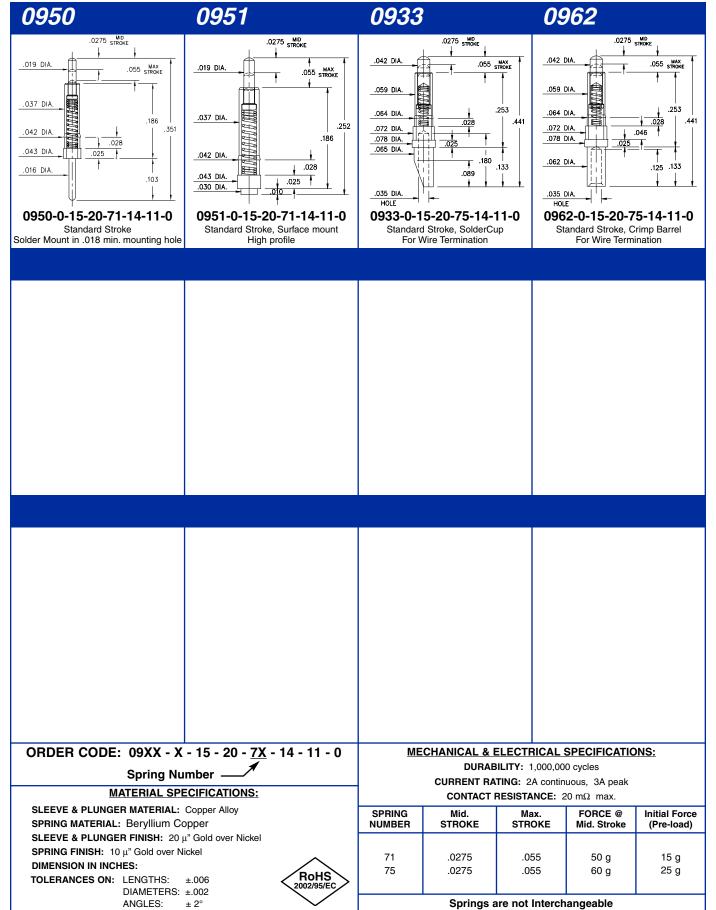
RoHS

2002/95/EC



SPRING-LOADED CONNECTORS Discrete Spring-Loaded Contacts







SPRING-LOADED CONNECTORS Discrete Spring-Loaded Contacts



0850

0850-0-15-20-83-14-11-0

Power Spring Pin Solder Mount in .090 min. mounting hole

Specifications for #0850-0 & #0852-0:

Material:

- Sleeve & Plunger Material: Copper Alloy
- Spring Material: Stainless Steel 302.

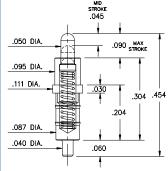
Mechanical Characteristics:

- Force @ mid-stroke (.045") = 120 grams
- Maximum stroke length = .090"
- Mechanical life: 1,000,000 cycles

Electrical Characteristics:

- Rated Current (Free air): Continuous 9 amps @ 10° C temperature rise.

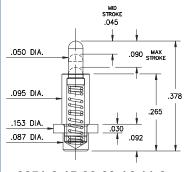
0852



0852-0-15-20-83-14-11-0

Power Spring Pin Solder Mount in .043 min. mounting hole

0851



0851-0-15-20-82-14-11-0

Power Spring Pin Solder Mount in .090 min. mounting hole

Specifications for #0851-0 & #0853-0:

Material:

- Sleeve & Plunger Material: Copper Alloy
- Spring Material: Stainless Steel 302.

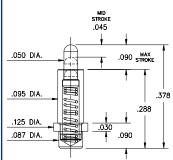
Mechanical Characteristics:

- Force @ mid-stroke (.045") = 120 grams
- Maximum stroke length = .090"
- Mechanical life: 1,000,000 cycles

Electrical Characteristics:

 Rated Current (Free air): Continuous 9 amps @ 10° C temperature rise.

0853



0853-0-15-20-82-14-11-0

Power Spring Pin Solder Mount in .090 min. mounting hole

ORDER CODE: 085X - X - 15 - 20 - <u>8X</u> - 14 - 11 - 0 Spring Number

MATERIAL SPECIFICATIONS:

SLEEVE & PLUNGER MATERIAL: Copper Alloy SPRING MATERIAL: Stainless Steel 302

SLEEVE & PLUNGER FINISH: 20 µ" Gold over Nickel

SPRING FINISH: 10μ Gold over Nickel

DIMENSION IN INCHES:

TOLERANCES ON: LENGTHS: ±.006
DIAMETERS: ±.002

DIAMETERS: ±.002 ANGLES: ± 2°

MECHANICAL & ELECTRICAL SPECIFICATIONS:

DURABILITY: 1,000,000 cycles

Rated Current (Free air): Continuous 9 amps @ 10° C temperature rise CONTACT RESISTANCE: 20 m Ω max.

SPRING			FORCE @	Initial Force
NUMBER			Mid. Stroke	(Pre-load)
82	.045	.090	120 g	25 g
83	.045	.090	120 g	25 g

82 & 83 Springs are not Interchangeable

RoHS

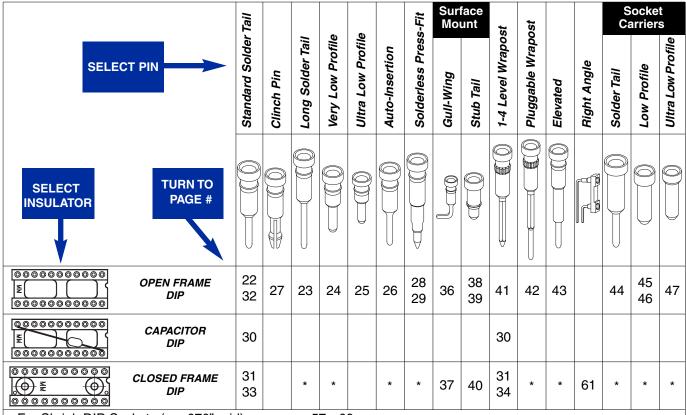


DIP SOCKETS, CARRIERS AND HEADERS QUICK SELECTOR CHART

USE THIS CONVENIENT CHART TO SELECT THE RIGHT DIP PRODUCT FOR YOUR APPLICATION.

- 1) Determine the style of pin needed to meet your requirement.
- 2) Select the appropriate insulator frame and grid spacing.
- 3) Turn to indicated page for detail and ordering information.
- 4) * denotes pins that Mill-Max will custom assemble in a selected insulator. Contact our applications engineers for further information.

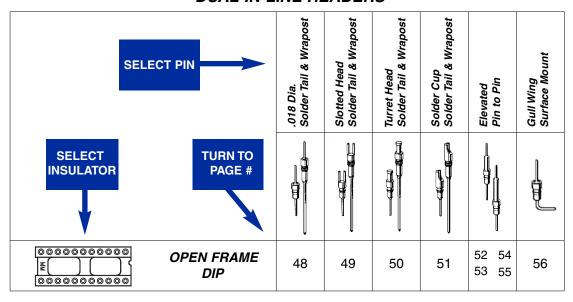
DUAL-IN-LINE SOCKETS AND CARRIERS



For Shrink DIP Sockets (on .070" grid), see page 57 - 60

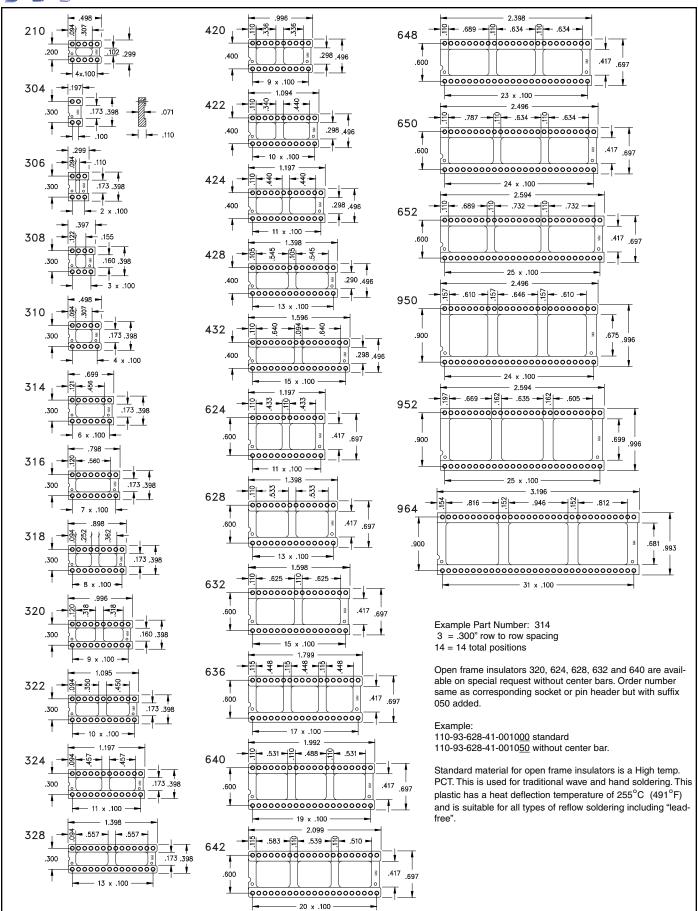
For Technical Specifications, see page 4.

DUAL-IN-LINE HEADERS



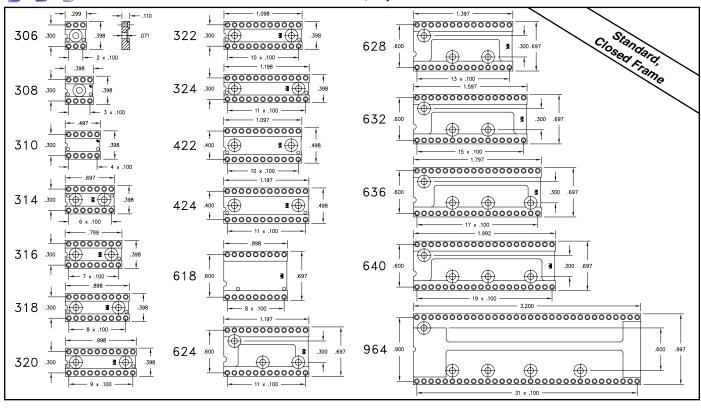


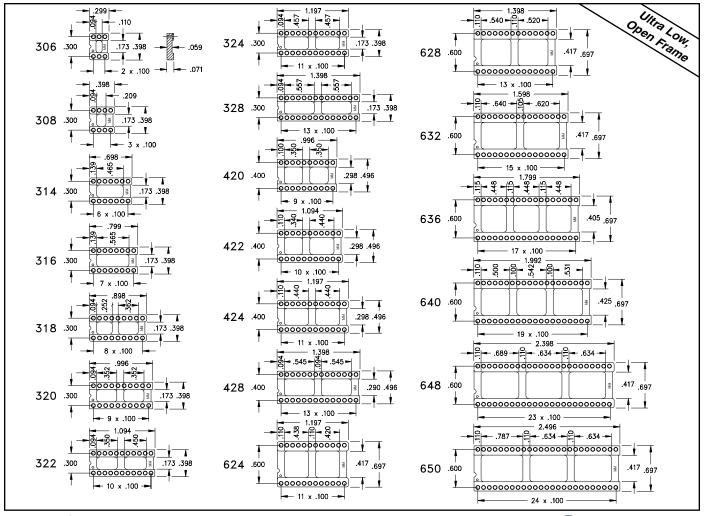
DUAL-IN-LINE INSULATORS Standard Open Frame





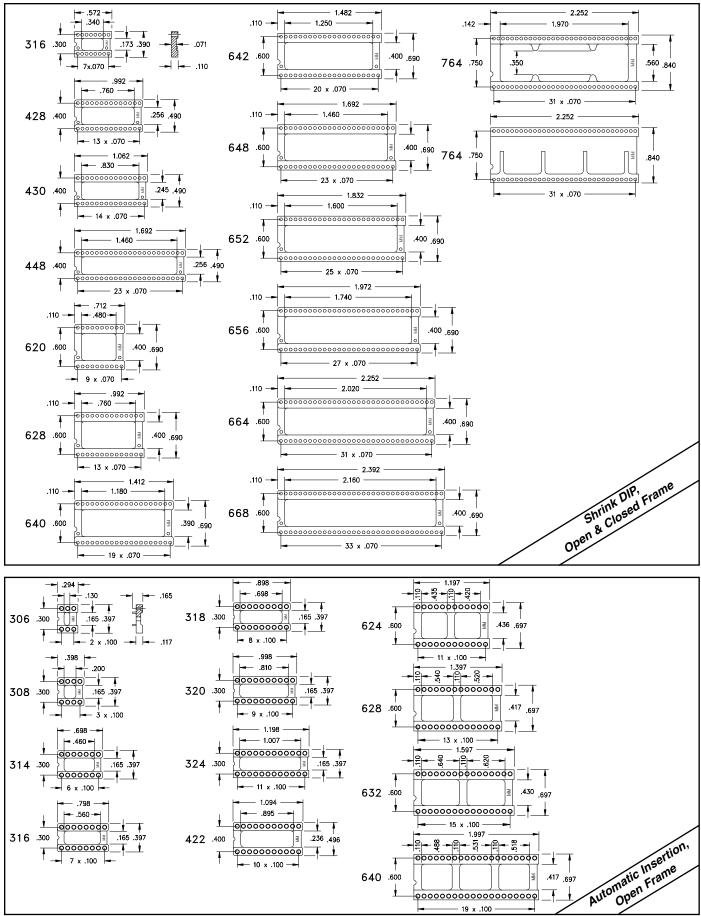
DUAL-IN-LINE INSULATORS Standard, Closed Frame Ultra Low Profile, Open Frame





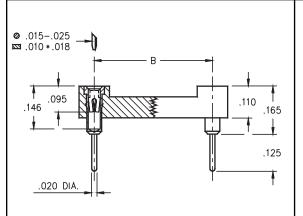


DUAL-IN-LINE INSULATORS Shrink DIP, Open and Closed Frame Automatic Insertion, Open Frame

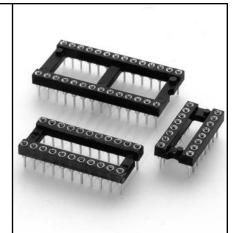




DUAL-IN-LINE SOCKETS Standard Solder Tail Open Frame



- All DIP sockets accept .015"
 .025" diameter & standard IC leads.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 110 sockets use MM #1001 pins. See page 136 for details.
- Insulators are high temp. thermoplastic.



Total number of pins	B 00	77	00 C (TYP)	Quantity per tube	Ordering Information						
Ĕ	Α	В	С								
10	0.5	0.2	0.3	40			110	0-XX-210-41	-001000	^	
4 6 8 10 14 16 18 20 22 24 28 20 22	0.2 0.3 0.4 0.5 0.7 0.8 0.9 1.0 1.1 1.2 1.4	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.5	102 67 50 40 28 25 22 20 18 16 14 20			110 111 110 110 110 111 111 111	0-XX-304-41 0-XX-306-41 0-XX-308-41 0-XX-310-41 0-XX-314-41 0-XX-318-41 0-XX-320-41 0-XX-322-41 0-XX-324-41 0-XX-328-41 0-XX-420-41 0-XX-420-41	-001000 -001000 -001000 -001000 -001000 -001000 -001000 -001000 -001000	For RoHS corselect ♦ plat	npliance
24 28 32	1.2 1.4 1.6	0.4 0.4 0.4	0.5 0.5 0.5	16 14 12			11	0-XX-424-41 0-XX-428-41 0-XX-432-41	I-001000		
24 28 32 36 40 42 48 50 52 50 52 64	1.2 1.4 1.6 1.8 2.0 2.1 2.4 2.5 2.6 2.5 2.6 3.2	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.9	0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 1.0	16 14 12 11 10 9 8 7 8 7 6	(M	For Electrical, lechanical & Environ Data, See pg. 4	11 11 11 11 11 11 11 11 11 11	0-XX-624-41 0-XX-628-41 0-XX-632-41 0-XX-636-41 0-XX-640-41 0-XX-642-41 0-XX-650-41 0-XX-652-41 0-XX-950-41 0-XX-950-41 0-XX-952-41	I-001000 I-001000 I-001000 I-001000 I-001000 I-001000 I-001000 I-001000	XX=Plating See Bel	
<u> </u>			DDE XX		3 💠	91	93	99	41♦	43♦	44♦
Sleeve	(Pin)			10	ι" Au	200μ" Sn/Pb	200μ" Sn/Pb	200μ"Sn/Pb	200μ" Sn	200μ"Sn	200μ"Sn

0

30μ" Au

200μ" Sn/Pb

10μ" Au

10μ" Au

30μ" Au

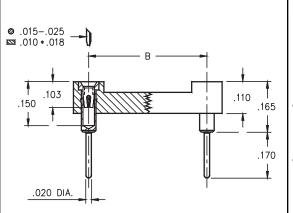
200μ" Sn

30μ" Au

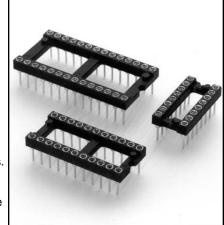
Contact (Clip)



DUAL-IN-LINE SOCKETS Long Solder Tail for Multilayer PC-Boards Open Frame



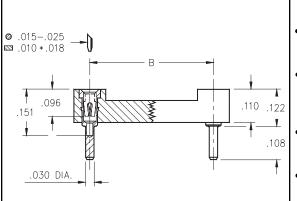
- DIP sockets with increased solder tail length of .170", allowing application on multilayer PCBs up to .139" thick. Other lengths available upon request.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 111 use MM #0134 pins.
 See page 136 for details.
- Insulators are high temperature thermoplastic.



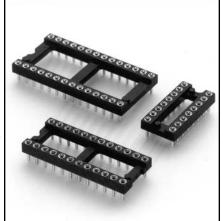
Total number of pins	— ———		Quantity per tube		Ordering Information							
<u> </u>	Α	В	С									
10	0.5	0.2	0.3	40			11	1-XX-210-41	-001000	^		
4	0.2	0.3	0.4	102				1-XX-304-41		RoH		
6	0.3	0.3	0.4	67		111-XX-306-41-001000 <			2002/95/	EC		
8	0.4	0.3	0.4	50				1-XX-308-41				
10	0.5	0.3	0.4	40				1-XX-310-41		•		
14	0.7	0.3	0.4	28				1-XX-314-41		For RoHS con		
16	0.8	0.3	0.4	25				1-XX-316-41		select 💠 plat	ting code.	
18	0.9	0.3	0.4	22				1-XX-318-41				
20	1.0	0.3	0.4	20				1-XX-320-41				
22	1.1	0.3	0.4	18		111-XX-322-41-001000						
24	1.2	0.3	0.4	16		111-XX-324-41-001000						
28	1.4	0.3	0.4	14	111-XX-328-41-001000							
20	1.0	0.4	0.5	20		111-XX-420-41-001000						
22	1.1	0.4	0.5	18			111	1-XX-422-41	-001000			
24	1.2	0.4	0.5	16			111	1-XX-424-41	-001000			
28	1.4	0.4	0.5	14			111	1-XX-428-41	-001000			
32	1.6	0.4	0.5	12	111-XX-432-41-001000							
24	1.2	0.6	0.7	16			111	1-XX-624-41	-001000			
28	1.4	0.6	0.7	14			111	1-XX-628-41	-001000			
32	1.6	0.6	0.7	12			111	1-XX-632-41	-001000			
36	1.8	0.6	0.7	11			111	111-XX-636-41-001000				
40	2.0	0.6	0.7	10			11	1-XX-640-41	-001000			
42	2.1	0.6	0.7	9			111	1-XX-642-41	-001000			
48	2.4	0.6	0.7	8				1-XX-648-41				
50	2.5	0.6	0.7	8				1-XX-650-41				
52	2.6	0.6	0.7	7			_	1-XX-652-41	-001000		_	
50	2.5	0.9	1.0	8	M.	For Electrical, echanical & Enviro		1-XX-950-41	-001000	XX=Plating		
52	2.6	0.9	1.0	7	Data, See pg. 4 111-XX-952-41-001000 See Below				low			
64	3.2	0.9	1.0	6			111	1-XX-964-41	-001000			
SPECII	FY PLAT	ING C	DDE XX	ζ=	•		93			43♦		
Sleeve	(Pin)	<u></u>					200μ" Sn/Pb			200μ" Sn		
Contac	t (Clip)	0 -	>				30μ" Au			30μ" Au		



DUAL-IN-LINE SOCKETS Very Low Profile Open Frame



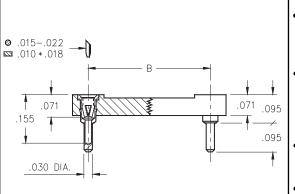
- Low profile DIP socket, sits only .122" above the PCB.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 115 use MM #0501 pins. See page 133 for details.
- Insulators are high temperature thermoplastic.



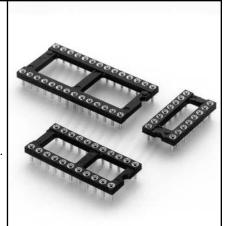
Total number of pins	A C C C .100 (TYP)			Quantity per tube	Ordering Information						
ĭ	Α	В	С								
10	0.5	0.2	0.3	41		11:	5-XX-210-41	-001000	^		
4 6 8 10 14 16 18 20 22 24 28 20 22	0.2 0.3 0.4 0.5 0.7 0.8 0.9 1.0 1.1 1.2 1.4	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5	102 67 50 40 28 25 22 20 18 16 14 20 18		11! 11! 11! 11! 11: 11: 11: 11:	5-XX-304-41 5-XX-306-41 5-XX-308-41 5-XX-310-41 5-XX-316-41 5-XX-318-41 5-XX-320-41 5-XX-322-41 5-XX-324-41 5-XX-328-41 5-XX-420-41 5-XX-420-41	-001000 -001000 -001000 -001000 -001000 -001000 -001000 -001000 -001000	For RoHS cor select ♦ plat	npliance	
24 28 32	1.2 1.4 1.6	0.4 0.4 0.4	0.5 0.5 0.5 0.5	16 14 12		11: 11:	5-XX-422-41 5-XX-424-41 5-XX-428-41 5-XX-432-41	-001000 -001000			
24 28 32 36 40 42 48 50 52	1.2 1.4 1.6 1.8 2.0 2.1 2.4 2.5 2.6	0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	16 14 12 11 10 9 8 8 7	For Electrica	11: 11: 11: 11: 11: 11: 11:	5-XX-624-41 5-XX-628-41 5-XX-632-41 5-XX-636-41 5-XX-640-41 5-XX-642-41 5-XX-648-41 5-XX-650-41	-001000 -001000 -001000 -001000 -001000 -001000			
50 52 64	2.5 2.6 3.2	0.9 0.9 0.9	1.0 1.0 1.0	8 7 6	Mechanical & Envi Data, See pg	11 11 11 11 11 11 11 11 11 11 11 11 11	5-XX-950-41 5-XX-952-41 5-XX-964-41	-001000	See Be		
SPECIFY PLATING CODE XX= 93								43♦			
Sleeve	,					200μ" Sn/Pb			200μ"Sn		
Contact	t (Clip)	0	7			30μ" Au			30μ" Au		



DUAL-IN-LINE SOCKETS Ultra Low Profile Open Frame



- Our lowest profile DIP socket with an above PCB height of only .095".
- Special short Hi-Rel, 4-finger BeCu #12 contact is rated at 3 amps. See page 218 for details.
- Series 115 use MM #1534 pins.
 See page 132 for details.
- Insulators are high temperature thermoplastic.



Total number of pins	B 0 C		Quantity Quantity Per rube		Ordering Information
<u> </u>	Α	В	С		
6 8 14 16 18 20 22 24 28 20 22 24 28 24 28 32 36 40 48	0.3 0.4 0.7 0.8 0.9 1.0 1.1 1.2 1.4 1.0 1.1 1.2 1.4 1.6 1.8 2.0 2.4	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.4 0.4 0.6 0.6 0.6 0.6	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	68 50 28 25 22 20 18 16 14 20 18 16 14 16 14 16 14 10 8	115-XX-306-41-003000 115-XX-308-41-003000 115-XX-314-41-003000 115-XX-316-41-003000 115-XX-318-41-003000 115-XX-320-41-003000 115-XX-322-41-003000 115-XX-324-41-003000 115-XX-328-41-003000 115-XX-422-41-003000 115-XX-422-41-003000 115-XX-428-41-003000 115-XX-628-41-003000 115-XX-628-41-003000 115-XX-636-41-003000 115-XX-636-41-003000 115-XX-636-41-003000 115-XX-640-41-003000 115-XX-648-41-003000
50	2.5	0.6	0.7	8	For Electrical, Mechanical & Environmental Data, See pg. 4 93 43 44

0

200μ"Sn

30μ" Au

200μ"Sn

200μ" Sn

200μ" Sn/Pb

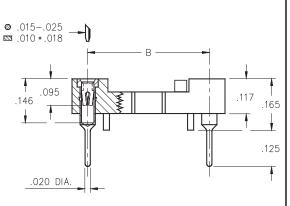
30μ" Au

Sleeve (Pin)

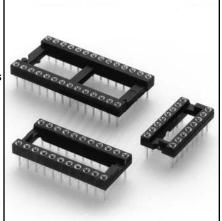
Contact (Clip)



DUAL-IN-LINE SOCKETS Automatic Insertion Open Frame



- High temperature thermoplastic insulator with standoffs is compatible with standard automatic insertion equipment.
- Soft copper alloy machined pins allows clinching. Chamfered contact entry allows for ease of IC insertion without bent leads.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 110 use MM #1005 pins.
 See page 137 for details.



Total number of pins	A		Quantity per tube	Ordering Information						
ř	Α	В	С							
6	0.3	0.3	0.4	67		110	D-XX-306-41	-605000	^	
8	0.4	0.3	0.4	50		110	0-XX-308-41	-605000	RoH	s
14	0.7	0.3	0.4	28		110	D-XX-314-41	-605000	2002/95/	EC
16	0.8	0.3	0.4	25		110	0-XX-316-41	-605000		
18	0.9	0.3	0.4	22		110	0-XX-318-41	-605000	For RoHS cor	
20	1.0	0.3	0.4	20		110	0-XX-320-41	-605000	select 🔷 plat	ring code.
24	1.2	0.3	0.4	16		110	0-XX-324-41	-605000		
22	1.1	0.4	0.5	18		110	0-XX-422-41	-605000		
24	1.2	0.6	0.7	16		110	0-XX-624-41	-605000		
28	1.4	0.6	0.7	14	110-XX-628-41-605000					
32	1.6	0.6	0.7	12	110-XX-632-41-605000					
40	2.0	0.6	0.7	10		110	0-XX-640-41	-605000		
					For Ele Mechanical & Data, Sc	Enviromental			XX=Plating See Be	
SPECIF	I TY PLAT	L TING C	DDE XX	<u> </u> (=		93			43♦	
Sleeve	(Pin)	(I)				200μ" Sn/Pb			200μ"Sn	

0

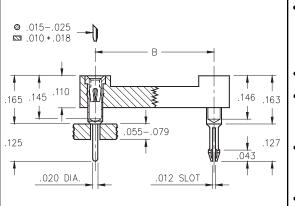
30μ" Au

30μ" Au

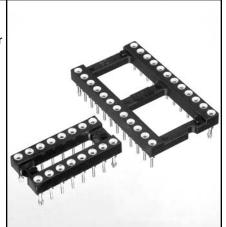
Contact (Clip)



DUAL-IN-LINE SOCKETS Clinch Pin Open Frame



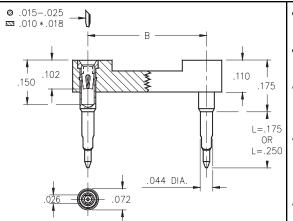
- Special lock-down feature prevents floating of socket during soldering. Open insulator with ladder construction.
- Sockets are XY stackable.
- Socket pins feature closed end construction eliminating any solder wicking problems.
- Series 101 use MM #1001 & MM #0156 pins. See page 136 for details.
- Insulators are high temperature thermoplastic.



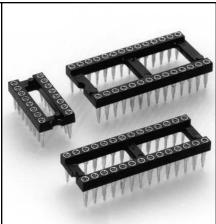
Total number of pins	A C C C .100 (TYP)			Quantity per tube	Ordering Information						
6	Α	В	С								
6	0.3	0.3	0.4	67	101-93-306-41-56X000						
8	0.4	0.3	0.4	50	101-93-308-41-56X000						
14	0.7	0.3	0.4	28	101-93-314-41-56X000						
16	0.8	0.3	0.4	25	101-93-316-41-56X000						
18	0.9	0.3	0.4	22	101-93-318-41-56X000						
20	1.0	0.3	0.4	20	101-93-320-41-56X000						
24	1.2	0.3	0.4	16	101-93-324-41-56X000						
28	1.4	0.3	0.4	14	101-93-328-41-56X000						
22	1.1	0.4	0.5	18	101-93-422-41-56X000						
24	1.2	0.6	0.7	16	101-93-624-41-56X000						
28	1.4	0.6	0.7	14	101-93-628-41-56X000						
32	1.6	0.6	0.7	12	101-93-632-41-56X000						
40	2.0	0.6	0.7	10	101-93-640-41-56X000						
48	2.4	0.6	0.7	8	101-93-648-41-56X000						
64	3.2	0.9	1.0	6	Two Opposite Corner Pins X = 0 Four Corner Pins X = 8 For Electrical, Mechanical & Environmental Data See pr. 4 For RoHS compliance						
					Data, See pg. 4 select \diamondsuit plating code.						
	NG CO				93						
Sleeve				>	200μ" Sn/Pb						
Contac	ct (Clip)	(\supset		30μ" Au						



DUAL-IN-LINE SOCKETS Solderless Press-Fit Open Frame



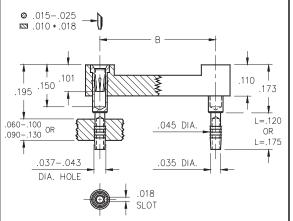
- Designed for solderless pressfit into plated thru-holes.
- Pin lengths are suitable for .062" and .093"-.125" thick panels.
- Required plated thru-hole is .036"-.041". Use a 1.1mm drill prior to plating.
- Series 104 use MM #0477 or MM #0478 pins with a BeCu #30 contact, rated at 3 amps. See page 133 for details.
- Insulators are high temperature thermoplastic.



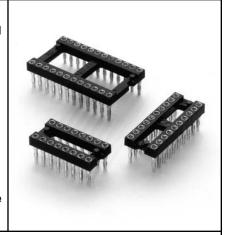
Total number of pins	B 0 0	77	C 1	Quantity per tube			Or	deı	ing Info		on	
Total	A	В	С	0 6	(for	L = .175 .062 thick pa	anel)	(fo	L = .250 or .125 thick			
10	0.5	0.2	0.3	40	104-	13-210-41-7	70000	104	-13-210-41-	780000		
4 6 8 10 14 16 18 20 22 24 28 20	0.2 0.3 0.4 0.5 0.7 0.8 0.9 1.0 1.1 1.2 1.4	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5	102 67 50 40 28 25 22 20 18 16 14	104- 104- 104- 104- 104- 104- 104- 104-	13-304-41-7 13-306-41-7 13-308-41-7 13-314-41-7 13-316-41-7 13-318-41-7 13-320-41-7 13-324-41-7 13-328-41-7	70000 70000 70000 70000 70000 70000 70000 70000 70000 70000	104 104 104 104 104 104 104 104	I-13-304-41- I-13-306-41- I-13-310-41- I-13-314-41- I-13-316-41- I-13-320-41- I-13-322-41- I-13-328-41- I-13-328-41-	780000 780000 780000 780000 780000 780000 780000 780000 780000 780000	RoH 2002/95 For RoHS co select ♦ pla	mpliance
22 24 28 32	1.1 1.2 1.4 1.6	0.4 0.4 0.4 0.4	0.5 0.5 0.5 0.5	18 16 14 12	104-1 104-1	13-422-41-7 13-424-41-7 13-428-41-7 13-432-41-7	70000 70000	104 104	-13-422-41- -13-424-41- -13-428-41- -13-432-41-	780000 780000		
24 28 32 36 40 42 48 50 52	1.2 1.4 1.6 1.8 2.0 2.1 2.4 2.5 2.6 2.5	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 1.0	16 14 12 11 10 9 8 8 7 8	104-104-104-104-104-104-104-104-104-104-	13-624-41-7 13-628-41-7 13-632-41-7 13-636-41-7 13-640-41-7 13-648-41-7 13-650-41-7 13-950-41-7	70000 70000 70000 70000 70000 70000 70000 70000 70000	104 104 104 104 104 104 104	I-13-624-41- I-13-628-41- I-13-636-41- I-13-640-41- I-13-642-41- I-13-650-41- I-13-652-41-	780000 780000 780000 780000 780000 780000 780000 780000 780000	For Electi Mechanical & Er	· •
52 64 PLATII	2.6 3.2 NG COI	0.9 0.9 DE XX=	1.0	⊃ 10µ	104- 3 ♦ ı" Au	13-952-41-7 13-964-41-7			-13-952-41- -13-964-41-		Data, See	,
Contac	ct (Clip)	(\supset	30	μ" Au							

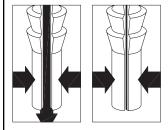


DUAL-IN-LINE SOCKETS Solderless Press-Fit, Compliant Tail Open Frame



- Unique compliant tail pins conform to .040"±.003" finished hole diameter without stressing inner layers.
- Two tails lengths are offered for .060"-.100" and .090"-.130" thick panels.
- Series 146 use MM #4612 or MM #4613 pins with a BeCu #30 contact, rated at 3 amps. See page 133 for details.
- Insulators are high temperature thermoplastic.





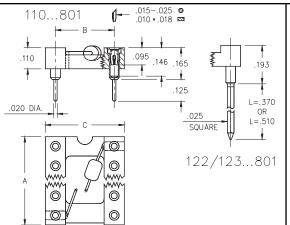
APPLICATION OF COMPLIANT TAIL PINS

Mill-Max's patented* compliant tail features precision-machined pins that are hollow and slotted to conform to a .040" ± .003" diameter PTH. As the pin is inserted, the slot compresses to fit the PTH, thus avoiding damage (see illustration at left). The pin's tail has fine serrations that form a perfect "gas tight" connection that doesn't require soldering. And since the pin doesn't damage the hole, compliant tail sockets and connectors can be easily replaced.
*Patent No. 4,799,904.

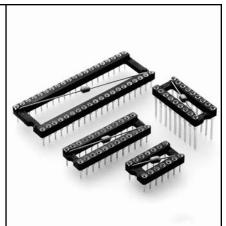
Total number of pins	B 0 C			Quantity per tube		Ordering Information						
Total	· 	.100	(TYP)	g g	(f	L=.120 or .060"100)"	L=.17 (for .090"				
Į.	Α	В	С		,	thick pane		thick p		Rol- 2002/9	HS 5/EC	
6	0.3	0.3	0.4	67	146-2	XX-306-41-0	12000	146-XX-306-4	1-013000			
8	0.4	0.3	0.4	50	146-2	X-308-41-0	12000	146-XX-308-4	1-013000	For RoHS co	omnliance	
14	0.7	0.3	0.4	28	146-2	X-314-41-0	12000	146-XX-314-4	1-013000	select ♦ pl		
16	0.8	0.3	0.4	25	146->	X-316-41-0	12000	146-XX-316-4	1-013000			
18	0.9	0.3	0.4	22	146-2	XX-318-41-0	12000	146-XX-318-4	1-013000			
20	1.0	0.3	0.4	20	146-2	XX-320-41-0	12000	146-XX-320-4	1-013000			
24	1.2	0.3	0.4	16	146-2	XX-324-41-0	12000	146-XX-324-4	1-013000			
22	1.1	0.4	0.5	18	146->	(X-422-41-0	12000	146-XX-422-4	1-013000	For Elec Mechanical & I Data, Sec	Enviromental	
24	1.2	0.6	0.7	16	146-2	(X-624-41-0	12000	146-XX-624-4	1-013000			
28	1.4	0.6	0.7	14	146-2	X-628-41-0	12000	146-XX-628-4	1-013000		_	
32	1.6	0.6	0.7	12	146-2	(X-632-41-0	12000	146-XX-632-4	1-013000	XX=Platin		
40	2.0	0.6	0.7	10	146-2	KX-640-41-0	12000	146-XX-640-4	1-013000	See B	elow	
SPECII	SPECIFY PLATING CODE XX=		=			93		l	43♦			
Sleeve	Sleeve (Pin)					200μ" Sn/P	b		200μ"Sn			
Contac	t (Clip)	0	3				30μ" Au			30μ" Au		



DUAL-IN-LINE SOCKETS With Integral Decoupling Capacitor Open Frame



- Low profile DIP sockets with integral decoupling capacitor:
 .1μ F 20%-50V multi-layer ceramic epoxy encapsulated. Temp. range: -25° C to +85° C.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 110, 122 and 123 use MM #1001, #0088 or #0089 pins. See pages 136 and 166 for details.
- Insulators are high temperature thermoplastic.



al number of pins	B 000 000 C C C (TYP)		Quantity Output Der tube		Ord	dering Informati	on
Total		I	1	QŢ	Solder Tail	2 Level Wrapost	3 Level Wrapost
_	Α	В	C			L = .370	L = .510
14	0.7	0.3	0.4	28	110-XX-314-41-801000	122-13-314-41-801000	123-XX-314-41-801000
16	0.8	0.3	0.4	25	110-XX-316-41-801000	122-13-316-41-801000	123-XX-316-41-801000
18	0.9	0.3	0.4	22	110-XX-318-41-801000	122-13-318-41-801000	123-XX-318-41-801000
20	1.0	0.3	0.4	20	110-XX-320-41-801000	122-13-320-41-801000	123-XX-320-41-801000
22	1.1	0.3	0.4	18	110-XX-322-41-801000	122-13-322-41-801000	123-XX-322-41-801000
24	1.2	0.3	0.4	16	110-XX-324-41-801000	122-13-324-41-801000	123-XX-324-41-801000
28	1.4	0.3	0.4	14	110-XX-328-41-801000	122-13-328-41-801000	123-XX-328-41-801000
22	1.1	0.4	0.5	18	110-XX-422-41-801000	122-13-422-41-801000	123-XX-422-41-801000
24	1.2	0.6	0.7	16	110-XX-624-41-801000	122-13-624-41-801000	123-XX-624-41-801000
28	1.4	0.6	0.7	14	110-XX-628-41-801000	122-13-628-41-801000	123-XX-628-41-801000
32	1.6	0.6	0.7	12	110-XX-632-41-801000	122-13-632-41-801000	123-XX-632-41-801000
40	2.0	0.6	0.7	10	110-XX-640-41-801000	122-13-640-41-801000	123-XX-640-41-801000



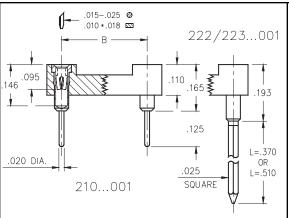
XX=Plating Code
See Below



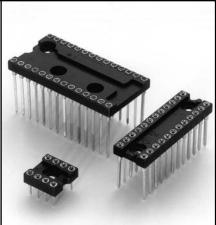
SPECIFY PLATING CODE XX=	13♦	93	43♦	
Sleeve (Pin)	10μ" Au	200μ" Sn/Pb	200μ" Sn	
Contact (Clip)	30μ" Au	30μ" Au	30μ" Au	



DUAL-IN-LINE SOCKETS Solder Tail and Wrapost Closed Frame



- Closed frame insulator withstands high mechanical impact.
- Available with standard solder pins, 2-level or 3-level wraposts.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 210, 222 and 223 use MM #1001, #0088 or #0089 pins. See pages 136 and 166 for details.
- Insulators are high temperature thermoplastic.



number pins	В	B C C C .100 (TYP)	Quantity per tube	Ord	dering Information	on		
Total of	A	100 B	C (TYP)	ed ປາ	Solder Tail	2 Level Wrapost L = .370	3 Level Wrapost L = .510	
6	0.3	0.3	0.4	67	210-XX-306-41-001000	222-XX-306-41-001000	223-XX-306-41-001000	
8	0.4	0.3	0.4	50	210-XX-308-41-001000	222-XX-308-41-001000	223-XX-308-41-001000	
10	0.5	0.3	0.4	40	210-XX-310-41-001000	222-XX-310-41-001000	223-XX-310-41-001000	
14	0.7	0.3	0.4	28	210-XX-314-41-001000	222-XX-314-41-001000	223-XX-314-41-001000	
16	0.8	0.3	0.4	25	210-XX-316-41-001000	222-XX-316-41-001000	223-XX-316-41-001000	
18	0.9	0.3	0.4	22	210-XX-318-41-001000	222-XX-318-41-001000	223-XX-318-41-001000	
20	1.0	0.3	0.4	20	210-XX-320-41-001000	222-XX-320-41-001000	223-XX-320-41-001000	
22	1.1	0.3	0.4	18	210-XX-322-41-001000	222-XX-322-41-001000	223-XX-322-41-001000	
24	1.2	0.3	0.4	16	210-XX-324-41-001000	222-XX-324-41-001000	223-XX-324-41-001000	
22 24	1.1 1.2	0.4 0.4	0.5 0.5	18 16	210-XX-422-41-001000 210-XX-424-41-001000	222-XX-422-41-001000 222-XX-424-41-001000	223-XX-422-41-001000 223-XX-424-41-001000	
24	1.2	0.6	0.7	16	210-XX-624-41-001000	222-XX-624-41-001000	223-XX-624-41-001000	
28	1.4	0.6	0.7	14	210-XX-628-41-001000	222-XX-628-41-001000	223-XX-628-41-001000	
32	1.6	0.6	0.7	12	210-XX-632-41-001000	222-XX-632-41-001000	223-XX-632-41-001000	
36	1.8	0.6	0.7	11	210-XX-636-41-001000	222-XX-636-41-001000	223-XX-636-41-001000	
40	2.0	0.6	0.7	10	210-XX-640-41-001000	222-XX-640-41-001000	223-XX-640-41-001000	
64	3.2	0.9	1.0	6	210-XX-964-41-001000	222-XX-964-41-001000	223-XX-964-41-001000	



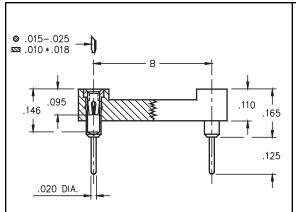
XX=Plating Code
See Below



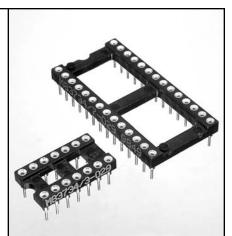
SPECIFY PLATING CODE XX=	13♦	93	99	43♦	44♦
Sleeve (Pin)	10μ" Au	200μ" Sn/Pb	200μ"Sn/Pb	200μ"Sn	200μ"Sn
Contact (Clip)	30μ" Au	30μ" Au	200μ" Sn/Pb	30μ" Au	200μ" Sn



MILITARY DUAL-IN-LINE SOCKETS MIL-S-83734 APPROVED Solder Tail, Open Frame



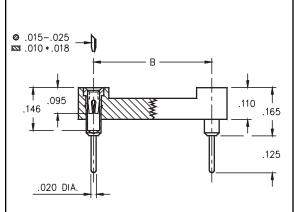
- Sockets are XY stackable.
- Machined outer sleeve with Hi-Rel, BeCu #30 inner contact.
- Socket pins feature closedentry construction eliminating any solder/flux wicking problems.
- Packaged in tubes compatible with automatic insertion equipment.
- Series 110 use MM #1001 pins. See page 136 for details.
- Insulators are high temperature thermoplastic.



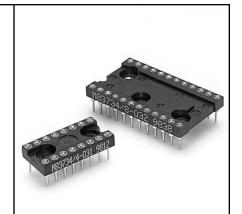
Total number of pins	A B C	Quantity per tube	Ordering I	nformatio	on			
1ot	Α	В	С	-	Mill-Max Part Number	Military	Part Numl	per
8 14 16 18 20 22 24 28 40 48 64	0.4 0.7 0.8 0.9 1.0 1.1 1.2 1.4 2.0 2.4 3.2	0.3 0.3 0.3 0.3 0.4 0.6 0.6 0.6 0.6 0.9	0.4 0.4 0.4 0.4 0.5 0.7 0.7 0.7 1.0	50 28 25 22 20 18 16 14 10 8	110-XX-308-41-530000 110-XX-314-41-530000 110-XX-316-41-530000 110-XX-318-41-530000 110-XX-320-41-530000 110-XX-422-41-530000 110-XX-624-41-530000 110-XX-628-41-530000 110-XX-640-41-530000 110-XX-648-41-530000 110-XX-964-41-530000	M8: M8: M8: M8: M8: M8: M8: M8:	3734/2-YYY 3734/3-YYY 3734/4-YYY 3734/5-YYY 3734/6-YYY 3734/8-YYY 3734/7-YYY 3734/10-YYY 3734/14-YYY	,
					For Electrical, Mechanical & Environmental Data, See pg. 4 SEE PAGE 35 FOR COMPLETE QPL)	
					SPECIFY MILL-MAX PLATING CODE XX= FOR MILITARY CODE YYY=		83 029	88 030
					Sleeve (Pin)	30μ" Au		300μ" Sn/Pb
					Contact (Clip)	30μ" Au	30μ" Au	100μ"Sn/Pb



MILITARY DUAL-IN-LINE SOCKETS MIL-S-83734 APPROVED Solder Tail, Closed Frame



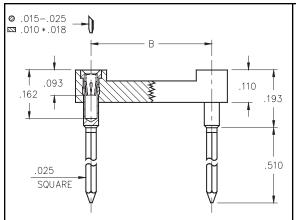
- Sockets are XY stackable.
- Machined outer sleeve with Hi-Rel, BeCu #30 inner contact.
- Socket pins feature closed-end construction eliminating any solder/flux wicking problems.
- Packaged in tubes compatible with automatic insertion equipment.
- Series 210 use MM #1001 pins. See page 136 for details.
- Insulators are high temperature thermoplastic.



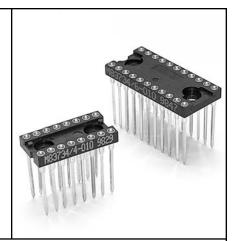
Total number of pins	A B C		00 <u>r</u>	Quantity per tube	Ordering Inf	ormatio	n		
To	Α	В	С		Mill-Max Part Number	Military Part Number			
6 8 14 16 18 20 22 24 28 32 40 64	0.3 0.4 0.7 0.8 0.9 1.0 1.1 1.2 1.4 1.6 2.0 3.2	0.3 0.3 0.3 0.3 0.3 0.4 0.6 0.6 0.6 0.6 0.9	0.4 0.4 0.4 0.4 0.4 0.5 0.7 0.7 0.7 1.0	67 50 28 25 22 20 18 16 14 10 8	210-XX-306-41-101000 210-XX-308-41-101000 210-XX-314-41-101000 210-XX-316-41-101000 210-XX-320-41-101000 210-XX-422-41-101000 210-XX-624-41-101000 210-XX-632-41-101000 210-XX-640-41-101000 210-XX-640-41-101000	M83734/1-YYY M83734/2-YYY M83734/3-YYY M83734/4-YYY M83734/5-YYY M83734/6-YYY M83734/7-YYY M83734/17-YYY M83734/10-YYY M83734/15-YYY			
					Data, See pg. 4 SEE PAGE 35 FOR	COMPLETE	E OBI		
					SPECIFY MILL-MAX PLATING CODE XX=	33	83	88	
					FOR MILITARY CODE YYY=	031	032	033	
					(6 PIN ONLY) YYY=	025	026	027	
					(32 PIN ONLY) YYY=	013	014	015	
					Sleeve (Pin) (1)	30μ" Au	300μ" Sn/Pb	300μ"Sn/Pb	
					Contact (Clip)	30μ" Au	30μ" Au	100μ"Sn/Pb	



MILITARY DUAL-IN-LINE SOCKETS MIL-S-83734 APPROVED 3 Level Wrapost, Closed Frame



- Sockets are XY stackable.
- Machined outer sleeve with Hi-Rel, BeCu #30 inner contact.
- Socket pins feature closed-end construction eliminating any solder/flux wicking problems.
- Series 223 use MM #0038-3 pins. See page 166 for details.
- Insulators are high temperature thermoplastic.



Total number of pins	of pins A B A B B B B B B B B B B		00 C	Quantity per tube	Ordering Inf	ormatio	n	
10	Α	В	С		Mill-Max Part Number	Military	Part Numb	per
6 8 14 16 18 20 22 24 28 32 40 64	0.3 0.4 0.7 0.8 0.9 1.0 1.1 1.2 1.4 1.6 2.0 3.2	0.3 0.3 0.3 0.3 0.3 0.4 0.6 0.6 0.6 0.9	0.4 0.4 0.4 0.4 0.5 0.7 0.7 0.7 1.0	67 50 28 25 22 20 18 16 14 12 10 6	223-XX-306-41-101000 223-XX-308-41-101000 223-XX-314-41-101000 223-XX-316-41-101000 223-XX-318-41-101000 223-XX-320-41-101000 223-XX-422-41-101000 223-XX-624-41-101000 223-XX-632-41-101000 223-XX-632-41-101000 223-XX-640-41-101000 223-XX-964-41-101000	M8373 M8373 M8373 M8373 M8373 M8373 M8373 M8373	34/1-YYY 34/2-YYY 34/3-YYY 34/4-YYY 34/5-YYY 34/6-YYY 34/6-YYY 34/7-YYY 34/17-YYY 34/10-YYY	e e
					SEE PAGE 35 FOR	COMPLETI	E QPL	
					SPECIFY MILL-MAX PLATING CODE XX=	33	83	88
					FOR MILITARY CODE YYY=	010	011	012
					(32 PIN ONLY) YYY=	007	008	009
					Sleeve (Pin)	30μ" Au	300μ" Sn/Pb	
					Contact (Clip)	30μ" Au	30μ" Au	100μ"Sn/Pb

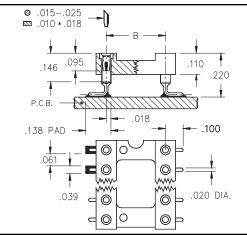


DIP SOCKETS QUALIFIED to MIL-S-83734

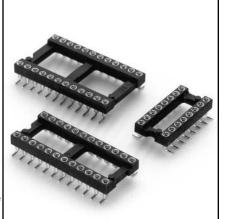
MIL SPEC #	MILL-MAX #	MIL SPEC #	MILL-MAX #	MIL SPEC #	MILL-MAX #
M83734/1-010	223-33-306-41-101000	M83734/7-010	223-33-628-41-101000	M83734/15-032	210-83-964-41-101000
M83734/1-011	223-83-306-41-101000	M83734/7-011	223-83-628-41-101000	M83734/15-033	210-88-964-41-101000
M83734/1-012	223-88-306-41-101000	M83734/7-012	223-88-628-41-101000		
M83734/1-025	210-33-306-41-101000	M83734/7-028	110-33-628-41-530000	M83734/17-001	221-33-632-41-101000
M83734/1-026	210-83-306-41-101000	M83734/7-029	110-83-628-41-530000	M83734/17-002	221-83-632-41-101000
M83734/1-027	210-88-306-41-101000	M83734/7-030	110-88-628-41-530000	M83734/17-003	221-88-632-41-101000
1000704/1-027	210-00-300-41-101000			M83734/17-003	222-33-632-41-101000
1400704/0 040	000 00 000 11 101000	M83734/7-031	210-33-628-41-101000		
M83734/2-010	223-33-308-41-101000	M83734/7-032	210-83-628-41-101000	M83734/17-005	222-83-632-41-101000
M83734/2-011	223-83-308-41-101000	M83734/7-033	210-88-628-41-101000	M83734/17-006	222-88-632-41-101000
M83734/2-012	223-88-308-41-101000			M83734/17-007	223-33-632-41-101000
M83734/2-028	110-33-308-41-530000	M83734/8-010	223-33-624-41-101000	M83734/17-008	223-83-632-41-101000
M83734/2-029	110-83-308-41-530000	M83734/8-011	223-83-624-41-101000	M83734/17-009	223-88-632-41-101000
M83734/2-030	110-88-308-41-530000	M83734/8-012	223-88-624-41-101000	M83734/17-013	210-33-632-41-101000
M83734/2-031	210-33-308-41-101000	M83734/8-028	110-33-624-41-530000	M83734/17-014	210-83-632-41-101000
M83734/2-032	210-83-308-41-101000	M83734/8-029	110-83-624-41-530000	M83734/17-015	210-88-632-41-101000
M83734/2-033	210-88-308-41-101000	M83734/8-030	110-88-624-41-530000		
155. 5 1/2 000		M83734/8-031	210-33-624-41-101000		
M83734/3-010	223-33-314-41-101000	M83734/8-032	210-83-624-41-101000		
M83734/3-010	223-83-314-41-101000	M83734/8-033	210-88-624-41-101000		
		IVIOO <i>T</i> 0 11 /0-033	210-00-024-41-101000		
M83734/3-012	223-88-314-41-101000	M00704/0 040	000 00 000 44 404000		
M83734/3-028	110-33-314-41-530000	M83734/9-010	223-33-636-41-101000		
M83734/3-029	110-83-314-41-530000	M83734/9-011	223-83-636-41-101000		
M83734/3-030	110-88-314-41-530000	M83734/9-012	223-88-636-41-101000		
M83734/3-031	210-33-314-41-101000	M83734/9-031	210-33-636-41-101000		
M83734/3-032	210-83-314-41-101000	M83734/9-032	210-83-636-41-101000		
M83734/3-033	210-88-314-41-101000	M83734/9-033	210-88-636-41-101000		
M83734/4-010	223-33-316-41-101000	M83734/10-010	223-33-640-41-101000		
M83734/4-011	223-83-316-41-101000	M83734/10-011	223-83-640-41-101000		
M83734/4-012	223-88-316-41-101000	M83734/10-012	223-88-640-41-101000		
M83734/4-028	110-33-316-41-530000	M83734/10-028	110-33-640-41-530000		
M83734/4-029	110-83-316-41-530000	M83734/10-029	110-83-640-41-530000		
M83734/4-030	110-88-316-41-530000	M83734/10-030	110-88-640-41-530000		
M83734/4-031	210-33-316-41-101000	M83734/10-031	210-33-640-41-101000		
M83734/4-032	210-83-316-41-101000	M83734/10-032	210-83-640-41-101000		
M83734/4-033	210-88-316-41-101000	M83734/10-033	210-88-640-41-101000		
M83734/5-010	223-33-318-41-101000	M83734/13-010	223-33-320-41-101000		
M83734/5-011	223-83-318-41-101000	M83734/13-011	223-83-320-41-101000		
M83734/5-012	223-88-318-41-101000	M83734/13-012	223-88-320-41-101000		
M83734/5-028	110-33-318-41-530000	M83734/13-028	110-33-320-41-530000		
M83734/5-029	110-83-318-41-530000	M83734/13-029	110-83-320-41-530000		
M83734/5-030	110-88-318-41-530000	M83734/13-030	110-88-320-41-530000		
M83734/5-031	210-33-318-41-101000	M83734/13-031	210-33-320-41-101000		
M83734/5-032	210-83-318-41-101000	M83734/13-032	210-83-320-41-101000		
M83734/5-033	210-88-318-41-101000	M83734/13-033	210-88-320-41-101000		
M83734/6-010	223-33-422-41-101000	M83734/14-028	110-33-648-41-530000		
M83734/6-011	223-83-422-41-101000	M83734/14-029	110-83-648-41-530000		
M83734/6-012	223-88-422-41-101000	M83734/14-030	110-88-648-41-530000		
M83734/6-028	110-33-422-41-530000				
M83734/6-029	110-83-422-41-530000	M83734/15-010	223-33-964-41-101000		
M83734/6-030	110-88-422-41-530000	M83734/15-011	223-83-964-41-101000		
M83734/6-031	210-33-422-41-101000	M83734/15-012	223-88-964-41-101000		
M83734/6-032	210-83-422-41-101000	M83734/15-028	110-33-964-41-530000		
M83734/6-033	210-88-422-41-101000	M83734/15-029	110-83-964-41-530000		
		M83734/15-030	110-88-964-41-530000		
		M83734/15-031	210-33-964-41-101000		
		l		I	



DUAL-IN-LINE SOCKETS Surface Mount, Gull Wing Open Frame



- For infra-red reflow and vapor phase soldering.
- Gull wing terminals for max. strength and easy in-circuit test.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 110 use MM #1005 pins.
 See page 137 for details.
- Insulators are high temperature thermoplastic.



Total number of pins	B 00	77	00 C C (TYP)	Quantity per tube		Ordering Information		n					
<u> </u>	Α	В	С										
10	0.5	0.2	0.3	40		^		110-XX-210	-41-105000				
4	0.2	0.3	0.4	102		RoHS	3	110-XX-304	-41-105000				
6	0.3	0.3	0.4	67		2002/95/	c >	110-XX-306					
8	0.4	0.3	0.4	50				110-XX-308	-41-105000				
10	0.5	0.3	0.4	40	1 -			110-XX-310					
14	0.7	0.3	0.4	28		For RoHS compliance 110-XX-314-41-105000 select ♦ plating code. 110-XX-316-41-105000							
16	0.8	0.3	0.4	25		110-XX-318-41-105000 110-XX-318-41-105000							
18	0.9	0.3	0.4	22		110-XX-318-41-105000 110-XX-320-41-105000							
20	1.0	0.3	0.4	20									
22	1.1 1.2	0.3	0.4	18				110-XX-322					
24 28		0.3	0.4	16 14				110-XX-324					
	1.4	0.3	0.4					110-XX-328					
20	1.0	0.4	0.5	20				110-XX-420					
22	1.1	0.4	0.5	18				110-XX-422					
24	1.2	0.4	0.5	16				110-XX-424					
28	1.4	0.4	0.5	14				110-XX-428					
32	1.6	0.4	0.5	12				110-XX-432-41-105000					
24	1.2	0.6	0.7	32				110-XX-624					
28	1.4	0.6	0.7	28				110-XX-628					
32	1.6	0.6	0.7	24				110-XX-632					
36	1.8	0.6	0.7	22				110-XX-636					
40	2.0	0.6	0.7	20				110-XX-640					
42	2.1	0.6	0.7	18				110-XX-642					
48	2.4	0.6	0.7	16				110-XX-648					
50	2.5	0.6	0.7	16				110-XX-650					
52	2.6	0.6	0.7	14	/	For Electric	al,	110-XX-652		XX=Platii	ng Code		
50	2.5	0.9	1.0	16	(Mechanical & Environmental		110-XX-950		See B			
52	2.6	0.9	1.0	14		Data, See pg. 4		110-XX-952			_/		
64	3.2	0.9	1.0	12		1		110-XX-964	-41-105000				
SPECIFY PLATING CODE XX= 93 43 ♦				43♦									

0

200μ" Sn/Pb

30μ" Au

200μ" Sn

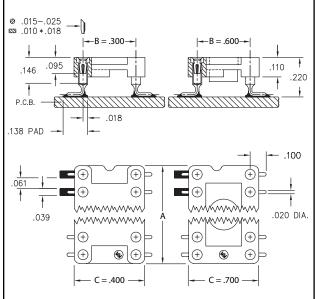
30μ" Au

Sleeve (Pin)

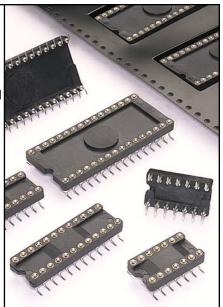
Contact (Clip)



DUAL-IN-LINE SOCKETS Surface Mount, Auto Placement, Gull Wing Closed Frame



- Closed frame insulator is vision system compatible.
- High-temp Nylon 46 insulator is suitable for all forms of reflow soldering.
- Traditional gull-wing leads permit visual inspection of solder joints.
- Available packaged in tubes or on tape & reel per EIA-481.
- Uses Mill-Max #1005 pin. See page 137 for details.



<u>To</u>	Α	В	С	
tal of	<u> </u>	.100	(TYP)	ſ
nur pin			<u>oo </u>	
umbe ins	B OC		00	
_				ı

Ordering Information

nu pi	1 66		00 1					
Total of		.100	(TYP)	OTY PER	TUBE PACKAGING	TAPE & REEL PACKAGING	TAPE WIDTH	OTV DED
6	Α	В	С	TUBE	TOBE PACKAGING	TAPE & REEL PACKAGING	(mm)	REEL
					VACUUM PA	AD TOP SURFACE ONLY		
6	0.3	0.3	0.4	67	210-XX-306-41-105000	210-XX-306-41-105799	16	400
8	0.4	0.3	0.4	50	210-XX-308-41-105000	210-XX-308-41-105799	24	400
14	0.7	0.3	0.4	28	210-XX-314-41-105000	210-XX-314-41-105799	32	400
16	0.8	0.3	0.4	25	210-XX-316-41-105000	210-XX-316-41-105799	32	400
18	0.9	0.3	0.4	22	210-XX-318-41-105000	210-XX-318-41-105799	44	400
20	1.0	0.3	0.4	20	210-XX-320-41-105000	210-XX-320-41-105799	44	400
24	1.2	0.3	0.4	16	210-XX-324-41-105000	210-XX-324-41-105799	44	400
					VACUUM F	PAD TOP AND BOTTOM		
24	1.2	0.6	0.7	16	210-XX-624-41-105000	210-XX-624-41-105799	44	300
28	1.4	0.6	0.7	14	210-XX-628-41-105000	210-XX-628-41-105799	56	300
32	1.6	0.6	0.7	12	210-XX-632-41-105000	210-XX-632-41-105799	56	300
40	2.0	0.6	0.7	10	210-XX-640-41-105000	NOT AVAILABLE		



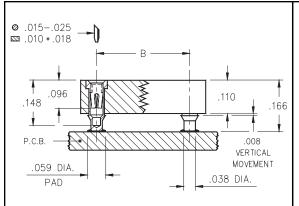
XX=Plating Code See Below



SPECIFY PLATING CODE XX=	13♦	93	43♦	
Sleeve (Pin)	10μ" Au	200μ" Sn/Pb	200μ"Sn	
Contact (Clip)	30μ" Au	30μ" Au	30μ" Au	



DUAL-IN-LINE SOCKETS Surface Mount, Stub Tail Open Frame



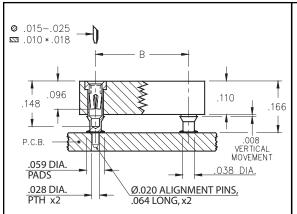
- Unique floating contacts compensate for the effects of unevenly dispensed solder paste.
- High temperature insulator can withstand infra-red reflow and vapor phase soldering.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 114 use MM #1434 pins. See page 133 for details.



Total number of pins	B 0 0	77		Quantity per tube	Ordering Information
1	Α	В	С		
10	0.5	0.2	0.3	41	114-XX-210-41-117000
4	0.2	0.3	0.4	100	114-XX-304-41-117000 RoHS
6	0.3	0.3	0.4	67	114-AA-306-41-117000 2002/95/EC
8	0.4	0.3	0.4	50	114-XX-308-41-117000
10	0.5	0.3	0.4	40	114-XX-310-41-117000
14	0.7	0.3	0.4	28	114-XX-314-41-117000 For RoHS compliance
16	0.8	0.3	0.4	25	114-XX-316-41-117000 select ♦ plating code.
18	0.9	0.3	0.4	22	114-XX-318-41-117000
20	1.0	0.3	0.4	20	114-XX-320-41-117000
22	1.1	0.3	0.4	18	114-XX-322-41-117000
24	1.2	0.3	0.4	16	114-XX-324-41-117000
28	1.4	0.3	0.4	14	114-XX-328-41-117000
20	1.0	0.4	0.5	20	114-XX-420-41-117000
22	1.1	0.4	0.5	18	114-XX-422-41-117000
24	1.2	0.4	0.5	16	114-XX-424-41-117000
28	1.4	0.4	0.5	14	114-XX-428-41-117000
32	1.6	0.4	0.5	12	114-XX-432-41-117000
24	1.2	0.6	0.7	16	114-XX-624-41-117000
28	1.4	0.6	0.7	14	114-XX-628-41-117000
32	1.6	0.6	0.7	12	114-XX-632-41-117000
36	1.8	0.6	0.7	11	114-XX-636-41-117000
40	2.0	0.6	0.7	10	114-XX-640-41-117000
42	2.1	0.6	0.7	9	114-XX-642-41-117000
48	2.4	0.6	0.7	8	114-XX-648-41-117000
50	2.5	0.6	0.7	8	114-XX-650-41-117000
52	2.6	0.6	0.7	7	114-XX-652-41-117000
50	2.5	0.9	1.0	8	For Electrical, Mechanical & Environmental 114-XX-950-41-117000 XX=Plating Code
52	2.6	0.9	1.0	7	Data, See pg. 4 114-XX-952-41-117000 See Below
64				6	114-XX-964-41-117000
SPECII	SPECIFY PLATING CODE XX=			ζ=	93 43♦
Sleeve	Sleeve (Pin)				200μ" Sn/Pb 200μ" Sn
Contac	t (Clip)	0	∍		30μ" Au 30μ" Au



DUAL-IN-LINE SOCKETS Surface Mount, Stub Tail, with Alignment Pins for Hand Placement



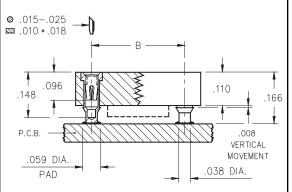
- Unique floating contacts compensate for the effects of unevenly dispensed solder paste.
- Two corner alignment pins (power & ground positions) permit manual placement.
- High temperature insulator can withstand infra-red reflow and vapor phase soldering.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 113 use MM #1334 and #1434 pins. See pages 133 & 142.



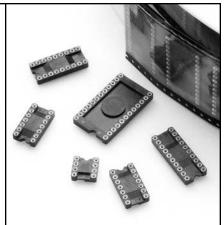
*		— A —	_								
Total number of pins		77		Quantity per tube		Ordering Information					
Ĕ	Α	В	С								
10	0.5	0.2	0.3	41			11	3-XX-210-4	1-117000		
4	0.2	0.3	0.4	100			11	13-XX-304-4	1-117000	Dall	
6	0.3	0.3	0.4	67				13-XX-306-4		RoH ²	
8	0.4	0.3	0.4	50				3-XX-308-4			
10	0.5	0.3	0.4	40				13-XX-310-4		~	
14	0.7	0.3	0.4	28		113-XX-314-41-117000				For RoHS con	
16	0.8	0.3	0.4	25		113-XX-316-41-117000				select 💠 pla	ting code.
18	0.9	0.3	0.4	22		113-XX-318-41-117000					
20	1.0	0.3	0.4	20				13-XX-320-4			
22	1.1	0.3	0.4	18				13-XX-322-4			
24 28	1.2	0.3 0.3	0.4 0.4	16 14				13-XX-324-4			
20	1.4	0.3	0.4	14			11	13-XX-328-4	1-117000		
20	1.0	0.4	0.5	20			11	13-XX-420-4	1-117000		
22	1.1	0.4	0.5	18			11	13-XX-422-4	1-117000		
24	1.2	0.4	0.5	16			11	13-XX-424-4	1-117000		
28	1.4	0.4	0.5	14			11	13-XX-428-4	1-117000		
32	1.6	0.4	0.5	12			11	13-XX-432-4	1-117000		
24	1.2	0.6	0.7	16				13-XX-624-4			
28	1.4	0.6	0.7	14				13-XX-628-4			
32	1.6	0.6	0.7	12				13-XX-632-4			
36	1.8	0.6	0.7	11				13-XX-636-4			
40	2.0	0.6	0.7	10				13-XX-640-4			
42	2.1	0.6	0.7	9				13-XX-642-4			
48	2.4	0.6	0.7	8				13-XX-648-4			
50	2.5	0.6	0.7	8				13-XX-650-4			
52	2.6	0.6	0.7	7			_	13-XX-652-4	1-11/000		_
50	2.5	0.9	1.0	8		For Electrica Mechanical & Envir	· \	13-XX-950-4	1-117000	XX=Plating	
52	2.6	0.9	1.0	7	\	Data, See pg.		13-XX-952-4	1-117000	See Be	low /
64	3.2	0.9	1.0	6			1	13-XX-964-4	1-117000		
SPEC	SPECIFY PLATING CODE XX=		(= 1 3	3 💠		93			43♦		
Sleeve	Sleeve (Pin)			10	ι" Au		200μ" Sn/Pb			200μ" Sn	
Conta	Contact (Clip)			30	μ" Au		30μ" Au			30μ" Au	



DUAL-IN-LINE SOCKETS Surface Mount, Auto Placement, Stub Tail Closed Frame



- Unique floating contacts compensate for the effects of unevenly screened solder paste.
- Available packaged in tubes or on tape & reel per EIA-481.
- High temp. Nylon 46 insulator, is suitable for infra-red & vapor phase soldering. Closed frame insulator is vision system compatible.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 214 use MM #1434 pins. See page 133 for details.



al number of pins	B 0 0	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	00 C 00 T
Total of	A	В	С

Ordering Information

_	A	В	-					
				QTY PER TUBE	TUBE PACKAGING	TAPE & REEL PACKAGING	TAPE WIDTH (mm)	QTY PER REEL
					VACUUM F	PAD TOP SURFACE ONLY		
6	0.3	0.3	0.4	67	214-XX-306-01-670800	214-XX-306-01-670799	16	750
8	0.4	0.3	0.4	50	214-XX-308-01-670800	214-XX-308-01-670799	16	1000
14	0.7	0.3	0.4	28	214-XX-314-01-670800	214-XX-314-01-670799	32	750
16	0.8	0.3	0.4	25	214-XX-316-01-670800	214-XX-316-01-670799	32	750
18	0.9	0.3	0.4	22	214-XX-318-01-670800	214-XX-318-01-670799	44	750
20	1.0	0.3	0.4	20	214-XX-320-01-670800	214-XX-320-01-670799	44	750
								ļ.
					VACUUM F	PAD TOP AND BOTTOM		
24	1.2	0.6	0.7	16	214-XX-624-01-670800	214-XX-624-01-670799	44	400
28	1.4	0.6	0.7	14	214-XX-628-01-670800	214-XX-628-01-670799	56	400
32	1.6	0.6	0.7	12	214-XX-632-01-670800	214-XX-632-01-670799	56	400
40	2.0	0.6	0.7	10	214-XX-640-01-670800	NOT AVAILABLE		
			I					



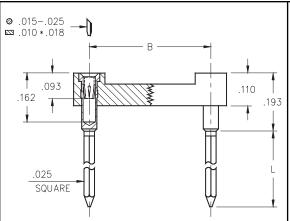
XX=Plating Code See Below



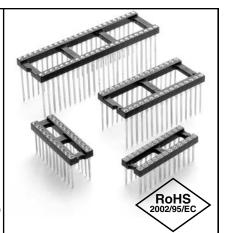
SPECIFY PLATING CODE XX=		99		44♦
Sleeve (Pin)		200μ"Sn/Pb		200μ"Sn
Contact (Clip)		200μ" Sn/Pb		200μ" Sn



DUAL-IN-LINE SOCKETS 1 thru 4 Level Wrapost **Open Frame**



- Solderless wrapost terminals are firmly locked in the insulator body to withstand torque of a wrapping tool.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 121, 122, 123 and 124 use MM #0040, #0086, #0088 and #0089 pins. See page 166 for details.
- Insulators are high temperature thermoplastic.



000 000

For Electrical, Mechanical & Enviromental Data, See pg. 4

Ordering Information

XX=Plating Code See Below

ਰੂ		100	(TYP)	De l						
Total of	A	В	С		1 Level Wr L = .26	• 1	2 Level Wrapo L = .370	ost 3	Level Wrapost L = .510	t 4 Level Wrapost L = .630
10	0.5	0.2	0.3	40	121-13-210-41-	001000	122-13-210-41-00	1000 123-	(X-210-41-0010	
										43 or 93 Plating Code ONLY
4	0.2	0.3	0.4	102	121-13-304-41-		122-13-304-41-00		KX-304-41-0010	
6	0.3	0.3	0.4		121-13-306-41-		122-13-306-41-00		KX-306-41-0010	
8	0.4	0.3	0.4		121-13-308-41-		122-13-308-41-00		KX-308-41-0010	
10	0.5	0.3	0.4	40	121-13-310-41-		122-13-310-41-00		KX-310-41-0010	
14	0.7	0.3	0.4	28	121-13-314-41-		122-13-314-41-00		KX-314-41-0010	
16	0.8	0.3	0.4	25	121-13-316-41-		122-13-316-41-00		KX-316-41-0010	
18	0.9	0.3	0.4		121-13-318-41-		122-13-318-41-00		KX-318-41-0010	
20	1.0	0.3	0.4		121-13-320-41-		122-13-320-41-00		(X-320-41-0010	
22	1.1	0.3	0.4		121-13-322-41-		122-13-322-41-00		(X-322-41-0010	
24	1.2	0.3	0.4	16	121-13-324-41-		122-13-324-41-00		(X-324-41-0010	
28	1.4	0.3	0.4	14	121-13-328-41-	001000	122-13-328-41-00	1000 123-	(X-328-41-0010)	
										43 or 93 Plating Code ONLY
20	1.0	0.4	0.5	20	121-13-420-41-		122-13-420-41-00		X-420-41-0010	
22	1.1	0.4	0.5		121-13-422-41-		122-13-422-41-00		(X-422-41-0010)	
24	1.2	0.4	0.5		121-13-424-41-		122-13-424-41-00		X-424-41-0010	
28	1.4	0.4	0.5	14	121-13-428-41-		122-13-428-41-00		KX-428-41-0010	
32	1.6	0.4	0.5	12	121-13-432-41-	001000	122-13-432-41-00	1000 123-	X-432-41-0010	
										43 or 93 Plating Code ONLY
24	1.2	0.6	0.7		121-13-624-41-		122-13-624-41-00		(X-624-41-0010)	
28	1.4	0.6	0.7		121-13-628-41-		122-13-628-41-00		KX-628-41-0010	
32	1.6	0.6	0.7		121-13-632-41-		122-13-632-41-00		(X-632-41-0010	
36	1.8	0.6	0.7	11	121-13-636-41-		122-13-636-41-00		KX-636-41-0010	
40	2.0	0.6	0.7	10	121-13-640-41-		122-13-640-41-00		(X-640-41-0010	
42	2.1	0.6	0.7	9	121-13-642-41-		122-13-642-41-00		(X-642-41-0010)	
48	2.4	0.6	0.7		121-13-648-41-		122-13-648-41-00		KX-648-41-0010	
50	2.5	0.6	0.7	8	121-13-650-41-		122-13-650-41-00		KX-650-41-0010	
52	2.6	0.6	0.7	7	121-13-652-41-	001000	122-13-652-41-00	1000 123-	KX-652-41-0010	
										43 or 93 Plating Code ONLY
50	2.5	0.9	1.0	8	121-13-950-41-		122-13-950-41-00		(X-950-41-0010)	
52	2.6	0.9	1.0		121-13-952-41-		122-13-952-41-00		(X-952-41-0010	
64	3.2	0.9	1.0	6	121-13-964-41-	001000	122-13-964-41-00	1000 123-	(X-964-41-0010	000 124-XX-964-41-002000
SPEC	IFY PLA	ATING C	ODE >	 ! ⟨Х=	13♦	1	93		43♦	
Sleeve	e (Pin)				10μ" Au		200μ" Sn/Pb		200μ"Sn	For RoHS compliance select \diamondsuit plating code.

0

30μ" Au

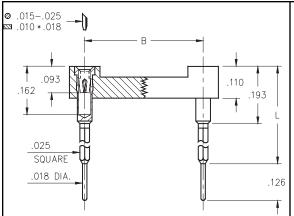
30μ" Au

30μ" Au

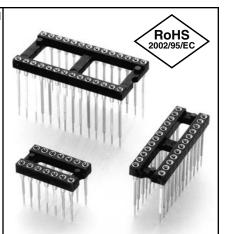
Contact (Clip)



DUAL-IN-LINE SOCKETS Pluggable Wrapost Open Frame



- Combines one through three level wrapost with pluggable solder tails.
- Suitable for use as an interconnect socket with intermediate wire wrapped connections.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 126 use MM #2601, #2602 & #2603 pins. See page 167 for details.
- Insulators are high temperature thermoplastic.



al number of pins	B 000 000 100 (TYP)	C 	Quantity per tube	For Electrical, Mechanical & Enviromental Data, See pg. 4
- 25			7	

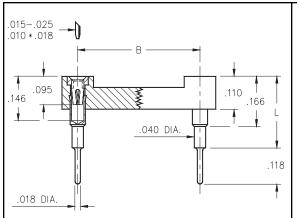
Ordering Information

XX=Plating Code See Below

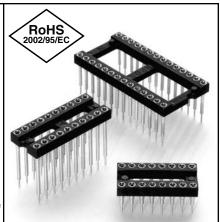
ਰ ਗ	Ĭ [†] ⊸ ∤	- .100	(TYP)	Qui			
Total of	-			2	L = .425	L = .543	L = .661
_	Α	В	С		(1 level = .232)	(2 level = .350)	(3 level = .469)
10	0.5	0.2	0.3	40	126-XX-210-41-001000	126-XX-210-41-002000	126-XX-210-41-003000
4	0.2	0.3	0.4	102	126-XX-304-41-001000	126-XX-304-41-002000	126-XX-304-41-003000
6	0.3	0.3	0.4	67	126-XX-306-41-001000	126-XX-306-41-002000	126-XX-306-41-003000
8	0.4	0.3	0.4	50	126-XX-308-41-001000	126-XX-308-41-002000	126-XX-308-41-003000
10	0.5	0.3	0.4	40	126-XX-310-41-001000	126-XX-310-41-002000	126-XX-310-41-003000
14	0.7	0.3	0.4	28	126-XX-314-41-001000	126-XX-314-41-002000	126-XX-314-41-003000
16	0.8	0.3	0.4	25	126-XX-316-41-001000	126-XX-316-41-002000	126-XX-316-41-003000
18	0.9	0.3	0.4	22	126-XX-318-41-001000	126-XX-318-41-002000	126-XX-318-41-003000
20	1.0	0.3	0.4	20	126-XX-320-41-001000	126-XX-320-41-002000	126-XX-320-41-003000
22	1.1	0.3	0.4	18	126-XX-322-41-001000	126-XX-322-41-002000	126-XX-322-41-003000
24	1.2	0.3	0.4	16	126-XX-324-41-001000	126-XX-324-41-002000	126-XX-324-41-003000
28	1.4	0.3	0.4	14	126-XX-328-41-001000	126-XX-328-41-002000	126-XX-328-41-003000
20	1.0	0.4	0.5	20	126-XX-420-41-001000	126-XX-420-41-002000	126-XX-420-41-003000
22	1.1	0.4	0.5	18	126-XX-422-41-001000	126-XX-422-41-002000	126-XX-422-41-003000
24	1.2	0.4	0.5	16	126-XX-424-41-001000	126-XX-424-41-002000	126-XX-424-41-003000
28	1.4	0.4	0.5	14	126-XX-428-41-001000	126-XX-428-41-002000	126-XX-428-41-003000
32	1.6	0.4	0.5	12	126-XX-432-41-001000	126-XX-432-41-002000	126-XX-432-41-003000
24	1.2	0.6	0.7	16	126-XX-624-41-001000	126-XX-624-41-002000	126-XX-624-41-003000
28	1.4	0.6	0.7	14	126-XX-628-41-001000	126-XX-628-41-002000	126-XX-628-41-003000
32	1.6	0.6	0.7	12	126-XX-632-41-001000	126-XX-632-41-002000	126-XX-632-41-003000
36	1.8	0.6	0.7	11	126-XX-636-41-001000	126-XX-636-41-002000	126-XX-636-41-003000
40	2.0	0.6	0.7	10	126-XX-640-41-001000	126-XX-640-41-002000	126-XX-640-41-003000
42	2.1	0.6	0.7	9	126-XX-642-41-001000	126-XX-642-41-002000	126-XX-642-41-003000
48	2.4	0.6	0.7	8	126-XX-648-41-001000	126-XX-648-41-002000	126-XX-648-41-003000
50	2.5	0.6	0.7	8	126-XX-650-41-001000	126-XX-650-41-002000	126-XX-650-41-003000
52	2.6	0.6	0.7	7	126-XX-652-41-001000	126-XX-652-41-002000	126-XX-652-41-003000
50	2.5	0.9	1.0	8	126-XX-950-41-001000	126-XX-950-41-002000	126-XX-950-41-003000
52	2.6	0.9	1.0	7	126-XX-952-41-001000	126-XX-952-41-002000	126-XX-952-41-003000
64	3.2	0.9	1.0	6	126-XX-964-41-001000	126-XX-964-41-002000	126-XX-964-41-003000
SPECIF	Y PLA	TING C	ODE XX	κ =	93	43♦	



DUAL-IN-LINE SOCKETS Elevated Open Frame



- For mechanical and electrical interconnection and stacking of PCBs.
- Other platings and heights are available upon request.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 116 use MM #0153-X pins. See page 138 for details.
- Insulators are high temperature thermoplastic.



of pins of pins and pins of pi

For Electrical, Mechanical & Enviromental Data, See pg. 4

Ordering Information

XX=Plating Code See Below

ia o	O !100 (TYP)		(TYP)	ع ۾					
Tota	Α	В	С		L = .236	L = .315	L = .402	L = .472	L = .594
10	0.5	0.2	0.3	40	116-XX-210-41-006000	116-XX-210-41-003000	116-XX-210-41-007000	116-XX-210-41-008000	116-XX-210-41-001000
4	0.2	0.3	0.4	102	116-XX-304-41-006000	116-XX-304-41-003000	116-XX-304-41-007000	116-XX-304-41-008000	116-XX-304-41-001000
6	0.3	0.3	0.4	67	116-XX-306-41-006000	116-XX-306-41-003000	116-XX-306-41-007000	116-XX-306-41-008000	116-XX-306-41-001000
8	0.4	0.3	0.4	50	116-XX-308-41-006000	116-XX-308-41-003000	116-XX-308-41-007000	116-XX-308-41-008000	116-XX-308-41-001000
10	0.5	0.3	0.4	40	116-XX-310-41-006000	116-XX-310-41-003000	116-XX-310-41-007000	116-XX-310-41-008000	116-XX-310-41-001000
14	0.7	0.3	0.4	28	116-XX-314-41-006000	116-XX-314-41-003000	116-XX-314-41-007000	116-XX-314-41-008000	116-XX-314-41-001000
16	0.8	0.3	0.4	25	116-XX-316-41-006000	116-XX-316-41-003000	116-XX-316-41-007000	116-XX-316-41-008000	116-XX-316-41-001000
18	0.9	0.3	0.4	22	116-XX-318-41-006000	116-XX-318-41-003000	116-XX-318-41-007000	116-XX-318-41-008000	116-XX-318-41-001000
20	1.0	0.3	0.4	20	116-XX-320-41-006000	116-XX-320-41-003000	116-XX-320-41-007000	116-XX-320-41-008000	116-XX-320-41-001000
22	1.1	0.3	0.4	18	116-XX-322-41-006000	116-XX-322-41-003000	116-XX-322-41-007000	116-XX-322-41-008000	116-XX-322-41-001000
24	1.2	0.3	0.4	16	116-XX-324-41-006000	116-XX-324-41-003000	116-XX-324-41-007000	116-XX-324-41-008000	116-XX-324-41-001000
28	1.4	0.3	0.4	14	116-XX-328-41-006000	116-XX-328-41-003000	116-XX-328-41-007000	116-XX-328-41-008000	116-XX-328-41-001000
20	1.0	0.4	0.5	20	116-XX-420-41-006000	116-XX-420-41-003000	116-XX-420-41-007000	116-XX-420-41-008000	116-XX-420-41-001000
22	1.1	0.4	0.5	18	116-XX-422-41-006000	116-XX-422-41-003000	116-XX-422-41-007000	116-XX-422-41-008000	116-XX-422-41-001000
24	1.2	0.4	0.5	16	116-XX-424-41-006000	116-XX-424-41-003000	116-XX-424-41-007000	116-XX-424-41-008000	116-XX-424-41-001000
28	1.4	0.4	0.5	14	116-XX-428-41-006000	116-XX-428-41-003000	116-XX-428-41-007000	116-XX-428-41-008000	116-XX-428-41-001000
32	1.6	0.4	0.5	12	116-XX-432-41-006000	116-XX-432-41-003000	116-XX-432-41-007000	116-XX-432-41-008000	116-XX-432-41-001000
24	1.2	0.6	0.7	16	116-XX-624-41-006000	116-XX-624-41-003000	116-XX-624-41-007000	116-XX-624-41-008000	116-XX-624-41-001000
28	1.4	0.6	0.7	14	116-XX-628-41-006000	116-XX-628-41-003000	116-XX-628-41-007000	116-XX-628-41-008000	116-XX-628-41-001000
32	1.6	0.6	0.7	12	116-XX-632-41-006000	116-XX-632-41-003000	116-XX-632-41-007000	116-XX-632-41-008000	116-XX-632-41-001000
36	1.8	0.6	0.7	11	116-XX-636-41-006000	116-XX-636-41-003000	116-XX-636-41-007000	116-XX-636-41-008000	116-XX-636-41-001000
40	2.0	0.6	0.7	10	116-XX-640-41-006000	116-XX-640-41-003000	116-XX-640-41-007000	116-XX-640-41-008000	116-XX-640-41-001000
42	2.1	0.6	0.7	9	116-XX-642-41-006000	116-XX-642-41-003000	116-XX-642-41-007000	116-XX-642-41-008000	116-XX-642-41-001000
48	2.4	0.6	0.7	8	116-XX-648-41-006000	116-XX-648-41-003000	116-XX-648-41-007000	116-XX-648-41-008000	116-XX-648-41-001000
50	2.5	0.6	0.7	8	116-XX-650-41-006000	116-XX-650-41-003000	116-XX-650-41-007000	116-XX-650-41-008000	116-XX-650-41-001000
52	2.6	0.6	0.7	7	116-XX-652-41-006000	116-XX-652-41-003000	116-XX-652-41-007000	116-XX-652-41-008000	116-XX-652-41-001000
50	2.5	0.9	1.0	8	116-XX-950-41-006000	116-XX-950-41-003000	116-XX-950-41-007000	116-XX-950-41-008000	116-XX-950-41-001000
52	2.6	0.9	1.0	7	116-XX-952-41-006000	116-XX-952-41-003000	116-XX-952-41-007000	116-XX-952-41-008000	116-XX-952-41-001000
64	3.2	0.9	1.0	6	116-XX-964-41-006000	116-XX-964-41-003000	116-XX-964-41-007000	116-XX-964-41-008000	116-XX-964-41-001000
SPEC	CIFY P	LATING	CODE	XX=		93		43♦	

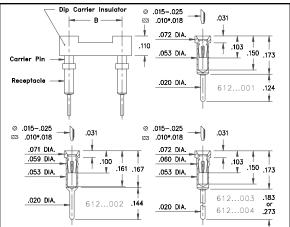
 SPECIFY PLATING CODE XX=
 93
 43 ◊

 Sleeve (Pin)
 200μ"Sn/Pb
 200μ"Sn

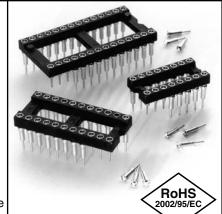
 Contact (Clip)
 30μ" Au
 30μ" Au



DUAL-IN-LINE SOCKETS Carrier Type Solder Tail



- Convenient way to load loose receptacles on a PC board.
- Removable plastic carriers can be returned for reloading.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 612 use MM #0132, #0135, #0255 or #8855 pins.
 See pages 136 and 142 for details.
- Insulators are high temperature thermoplastic.



of pins of pins Ouantity per tube

For Electrical, Mechanical & Enviromental Data, See pg. 4

Ordering Information

XX=Plating Code See Below

ਰ ਹ	ŏ		De D							
Total of	Α	В	С		Tail Length =	1	Tail Length = .		Length = .183	Tail Length = .273
					(.022 Min. Mounting	g Hole) (.0	022 Min. Mounting	hole) (.022 l	Min. Mounting hole	(.022 Min. Mounting hole)
10	0.5	0.2	0.3	40	612-XX-210-41-0	001000 612	2-XX-210-41-00	2000 612-XX	(-210-41-00300	0 612-XX-210-41-004000
4	0.2	0.3	0.4	102	612-XX-304-41-0	001000 612	2-XX-304-41-00	2000 612-XX	(-304-41-00300	0 612-XX-304-41-004000
6	0.3	0.3	0.4	68	612-XX-306-41-0	001000 612	2-XX-306-41-00	2000 612-XX	(-306-41-00300	0 612-XX-306-41-004000
8	0.4	0.3	0.4	50	612-XX-308-41-0	001000 612	2-XX-308-41-00	2000 612-XX	(-308-41-00300	0 612-XX-308-41-004000
10	0.5	0.3	0.4	40	612-XX-310-41-0	001000 612	2-XX-310-41-00	2000 612-XX	(-310-41-00300	0 612-XX-310-41-004000
14	0.7	0.3	0.4	28	612-XX-314-41-0	001000 612	2-XX-314-41-00	2000 612-XX	(-314-41-00300	0 612-XX-314-41-004000
16	0.8	0.3	0.4	25	612-XX-316-41-0	001000 612	2-XX-316-41-00	2000 612-XX	(-316-41-00300	0 612-XX-316-41-004000
18	0.9	0.3	0.4	22	612-XX-318-41-0	001000 612	2-XX-318-41-00	2000 612-XX	(-318-41-00300	0 612-XX-318-41-004000
20	1.0	0.3	0.4	20	612-XX-320-41-0	001000 612	2-XX-320-41-00	2000 612-XX	(-320-41-00300	0 612-XX-320-41-004000
22	1.1	0.3	0.4	18	612-XX-322-41-0	001000 612	2-XX-322-41-00	2000 612-XX	(-322-41-00300	0 612-XX-322-41-004000
24	1.2	0.3	0.4	16	612-XX-324-41-0	001000 612	2-XX-324-41-00	2000 612-XX	(-324-41-00300	0 612-XX-324-41-004000
28	1.4	0.3	0.4	14	612-XX-328-41-0	001000 612	2-XX-328-41-00	2000 612-XX	(-328-41-00300	0 612-XX-328-41-004000
20	1.0	0.4	0.5	20	612-XX-420-41-0				(-420-41-00300	
22	1.1	0.4	0.5	18	612-XX-422-41-0		2-XX-422-41-00		(-422-41-00300	
24	1.2	0.4	0.5	16	612-XX-424-41-0		2-XX-424-41-00		(-424-41-00300	
28	1.4	0.4	0.5	14	612-XX-428-41-0		2-XX-428-41-00		(-428-41-00300	
32	1.6	0.4	0.5	12	612-XX-432-41-0	001000 612	2-XX-432-41-00	2000 612-XX	(-432-41-00300	0 612-XX-432-41-004000
24	1.2	0.6	0.7	16	612-XX-624-41-0	001000 612	2-XX-624-41-00	2000 612-XX	(-624-41-00300	0 612-XX-624-41-004000
28	1.4	0.6	0.7	14	612-XX-628-41-0	001000 612	2-XX-628-41-00	2000 612-XX	(-628-41-00300	0 612-XX-628-41-004000
32	1.6	0.6	0.7	12	612-XX-632-41-0	001000 612	2-XX-632-41-00	2000 612-XX	(-632-41-00300	0 612-XX-632-41-004000
36	1.8	0.6	0.7	11	612-XX-636-41-0	001000 612	2-XX-636-41-00	2000 612-XX	(-636-41-00300	0 612-XX-636-41-004000
40	2.0	0.6	0.7	10	612-XX-640-41-0	001000 612	2-XX-640-41-00	2000 612-XX	(-640-41-00300	0 612-XX-640-41-004000
42	2.1	0.6	0.7	9	612-XX-642-41-0	001000 612	2-XX-642-41-00	2000 612-XX	(-642-41-00300	0 612-XX-642-41-004000
48	2.4	0.6	0.7	8	612-XX-648-41-0	001000 612	2-XX-648-41-00	2000 612-XX	(-648-41-00300	0 612-XX-648-41-004000
50	2.5	0.6	0.7	8	612-XX-650-41-0	001000 612	2-XX-650-41-00	2000 612-XX	(-650-41-00300	0 612-XX-650-41-004000
52	2.6	0.6	0.7	7	612-XX-652-41-0	001000 612	2-XX-652-41-00	2000 612-XX	(-652-41-00300	0 612-XX-652-41-004000
50	2.5	0.9	1.0	8	612-XX-950-41-0	001000 613	2-XX-950-41-00	2000 612-XX	(-950-41-00300	0 612-XX-950-41-004000
52	2.6	0.9	1.0	7	612-XX-952-41-0	I	2-XX-952-41-00		(-952-41-00300	
64	3.2	0.9	1.0	6	612-XX-964-41-0		2-XX-964-41-00	-	(-964-41-00300	
CDEC	ובע פי	ATING (93	1	43♦		
SPEU	IF T PL	HIING	$JUUE \lambda$	^	1 1	უა	1	43 🗸		

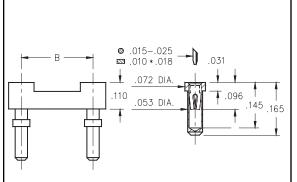
 SPECIFY PLATING CODE XX=
 93
 43 ◊

 Sleeve (Pin)
 ②00μ" Sn/Pb
 200μ" Sn

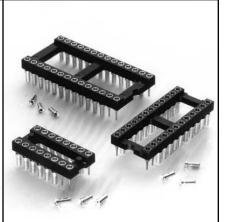
 Contact (Clip)
 30μ" Au
 30μ" Au



DUAL-IN-LINE SOCKETS Carrier Type Low Profile



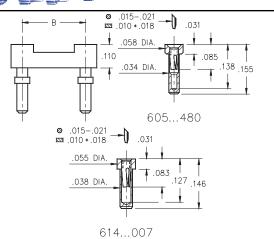
- Convenient way to load loose receptacles on a PC board.
- Removable plastic carriers can be returned for reloading.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 614 use MM #1401 pins. See page 141 for details.
- Insulators are high temperature thermoplastic.



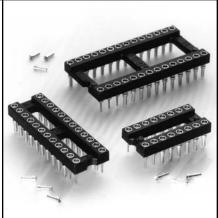
Total number of pins	On antity B C On a c C On a c				Ordering Information
10	0.5	0.2	0.3	40	614-XX-210-41-001000
4 6 8 10 14 16 18 20 22 24	0.2 0.3 0.4 0.5 0.7 0.8 0.9 1.0 1.1	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	102 67 50 40 28 25 22 20 18 16	614-XX-304-41-001000 614-XX-306-41-001000 614-XX-308-41-001000 614-XX-310-41-001000 614-XX-314-41-001000 614-XX-316-41-001000 614-XX-318-41-001000 614-XX-320-41-001000 614-XX-322-41-001000 614-XX-324-41-001000
28 20 22 24 28	1.4 1.0 1.1 1.2 1.4	0.3 0.4 0.4 0.4 0.4	0.4 0.5 0.5 0.5 0.5	14 20 18 16 14	614-XX-328-41-001000 614-XX-420-41-001000 614-XX-422-41-001000 614-XX-424-41-001000
32 24 28 32	1.6 1.2 1.4 1.6	0.4 0.6 0.6 0.6	0.5 0.7 0.7 0.7	12 16 14 12	614-XX-432-41-001000 614-XX-624-41-001000 614-XX-628-41-001000 614-XX-632-41-001000
36 40 42 48 50 52	1.8 2.0 2.1 2.4 2.5 2.6	0.6 0.6 0.6 0.6 0.6 0.6	0.7 0.7 0.7 0.7 0.7 0.7	11 10 9 8 8	614-XX-636-41-001000 614-XX-640-41-001000 614-XX-642-41-001000 614-XX-648-41-001000 614-XX-650-41-001000
50 52 64	2.5 2.6 3.2	0.0 0.9 0.9 0.9	1.0 1.0 1.0	8 7 6	For Electrical, Mechanical & Enviromental Data, See pg. 4 614-XX-950-41-001000 614-XX-952-41-001000 614-XX-964-41-001000 614-XX-964-41-001000
SPECI	FY PLA	TING C	ODE XX	ζ=	93 43 \$
Sleeve	(Pin)	0))]			200μ" Sn/Pb 200μ" Sn
Contac	t (Clip)	0)		30μ" Au 30μ" Au



DUAL-IN-LINE SOCKETS Carrier Type Low Profile



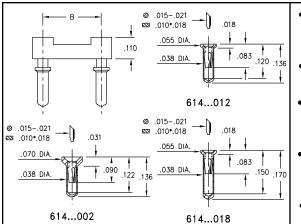
- Low profile receptacles sit only .031" high above the board.
- Removable plastic carriers can be returned for reloading.
- Hi-Rel, 3-finger BeCu #11 contact is rated at 3 amps. See page 217 for details.
- Series 605 and 614 use MM #0548 & #1407 pins. See page 128 for details.
- Insulators are high temperature thermoplastic.



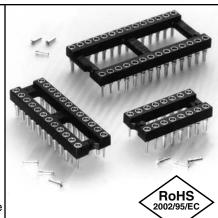
Total number of pins	B 0 C	77	C C	Quantity per tube		Ordering Information Length = .146						
ota Ota				Qg		•			•			
_	Α	В	С		<u> </u>	Min. Mounting	, ,	`	5 Min. Mountir			
10	0.5	0.2	0.3	40	614->	(X-210-31-0	07000	605	-XX-210-11	-480000	^	
4	0.2	0.3	0.4	102	614->	(X-304-31-0	07000	605	-XX-304-11	-480000	BoH	s
6	0.3	0.3	0.4	68	614->	(X-306-31-0	07000	605	-XX-306-11	-480000	RoH 2002/95	/EC
8	0.4	0.3	0.4	50		XX-308-31-0			5-XX-308-11			
10	0.5	0.3	0.4	40		(X-310-31-0			-XX-310-11-			
14	0.7	0.3	0.4	28	1	X-314-31-0			-XX-314-11		For RoHS co	
16	0.8	0.3	0.4	25	614->	X-316-31-0	07000	605	-XX-316-11	-480000	select \diamondsuit pla	ting code.
18	0.9	0.3	0.4	22	1	X-318-31-0		605	-XX-318-11	-480000		
20	1.0	0.3	0.4	20	614->	(X-320-31-0	07000	605	-XX-320-11	-480000		
22	1.1	0.3	0.4	18	614-X	(X-322-31-00	07000	605	-XX-322-11	480000		
24	1.2	0.3	0.4	16	614-2	XX-324-31-0	07000	605	5-XX-324-11	-480000		
28	1.4	0.3	0.4	14	614->	X-328-31-0	07000	605	-XX-328-11	-480000		
20	1.0	0.4	0.5	20		(X-420-31-0		605	-XX-420-11	480000		
22	1.1	0.4	0.5	18		(X-422-31-00			-XX-422-11			
24	1.2	0.4	0.5	16	1	(X-424-31-00			-XX-424-11			
28	1.4	0.4	0.5	14	1	(X-428-31-00			-XX-428-11			
32	1.6	0.4	0.5	12	614->	(X-432-31-00	07000	605	-XX-432-11	-480000		
24	1.2	0.6	0.7	16		(X-624-31-0		605	-XX-624-11	480000		
28	1.4	0.6	0.7	14		(X-628-31-00		605	-XX-628-11	480000		
32	1.6	0.6	0.7	12	614-X	(X-632-31-00	07000	605	-XX-632-11-	480000		
36	1.8	0.6	0.7	11	1	(X-636-31-00			-XX-636-11			_
40	2.0	0.6	0.7	10	614-X	(X-640-31-00	07000	605	-XX-640-11-	480000	For Electi	
42	2.1	0.6	0.7	9	614->	(X-642-31-00	07000	605	-XX-642-11	480000	Mechanical & Er Data, See	
48	2.4	0.6	0.7	8	614-X	(X-648-31-00	07000	605	-XX-648-11-	480000	Data, See	pg. 4
50	2.5	0.6	0.7	8	614-X	(X-650-31-00	07000	605	-XX-650-11	480000		
52	2.6	0.6	0.7	7	614->	(X-652-31-00	07000	605	-XX-652-11	480000		_
50	2.5	0.9	1.0	8	1	(X-950-31-00		605	-XX-950-11-	480000	XX=Plating	
52	2.6	0.9	1.0	7	614->	(X-952-31-0	07000	605	-XX-952-11	480000	See Be	low
64	3.2	0.9	1.0	6	614-X	(X-964-31-00	07000	605	-XX-964-11-	480000		
SPECIF	Y PLAT	ING C	DDE XX	=	•		93				43♦	
Sleeve	(Pin)						200μ" Sn	ı/Pb			200μ"Sn	
Contact	t (Clip)	0	7				30μ" Α	u			30μ" Au	



DUAL-IN-LINE SOCKETS Carrier Type Ultra Low Profile



- Ultra low profile receptacles sit only .018" to .031" high above the board.
- Removable plastic carriers can be returned for reloading.
- Hi-Rel, 3-finger BeCu #11 contact is rated at 3 amps.
 See page 217 for details.
- Series 614 use MM #0552-1, #0552-2 or #0442-0 pins. See pages 128 and 129 for details.
- Insulators are high temperature thermoplastic.



otal number of pins	B 		ا ور	0 0 0 0 0 0 (TYP)	C	Quantity	ner tilbe
.0	_				_		

For Electrical, Mechanical & Enviromental Data, See pg. 4

Ordering Information

XX=Plating Code
See Below

ਰੂਰ	^T	.100	(TYP)	Qui			
Total of	A	В	С	1 _	Length = .136	Length = .136	Length = .170
	A	В	C		(.039 Min. Mounting Hole)	(.039 Min. Mounting Hole)	(.039 Min. Mounting Hole)
10	0.5	0.2	0.3	40	614-XX-210-31-012000	614-XX-210-31-002000	614-XX-210-31-018000
4	0.2	0.3	0.4	102	614-XX-304-31-012000	614-XX-304-31-002000	614-XX-304-31-018000
6	0.3	0.3	0.4	67	614-XX-306-31-012000	614-XX-306-31-002000	614-XX-306-31-018000
8	0.4	0.3	0.4	50	614-XX-308-31-012000	614-XX-308-31-002000	614-XX-308-31-018000
10	0.5	0.3	0.4	40	614-XX-310-31-012000	614-XX-310-31-002000	614-XX-310-31-018000
14	0.7	0.3	0.4	28	614-XX-314-31-012000	614-XX-314-31-002000	614-XX-314-31-018000
16	0.8	0.3	0.4	25	614-XX-316-31-012000	614-XX-316-31-002000	614-XX-316-31-018000
18	0.9	0.3	0.4	22	614-XX-318-31-012000	614-XX-318-31-002000	614-XX-318-31-018000
20	1.0	0.3	0.4	20	614-XX-320-31-012000	614-XX-320-31-002000	614-XX-320-31-018000
22	1.1	0.3	0.4	18	614-XX-322-31-012000	614-XX-322-31-002000	614-XX-322-31-018000
24	1.2	0.3	0.4	16	614-XX-324-31-012000	614-XX-324-31-002000	614-XX-324-31-018000
28	1.4	0.3	0.4	14	614-XX-328-31-012000	614-XX-328-31-002000	614-XX-328-31-018000
20	1.0	0.4	0.5	20	614-XX-420-31-012000	614-XX-420-31-002000	614-XX-420-31-018000
22	1.1	0.4	0.5	18	614-XX-422-31-012000	614-XX-422-31-002000	614-XX-422-31-018000
24	1.2	0.4	0.5	16	614-XX-424-31-012000	614-XX-424-31-002000	614-XX-424-31-018000
28	1.4	0.4	0.5	14	614-XX-428-31-012000	614-XX-428-31-002000	614-XX-428-31-018000
32	1.6	0.4	0.5	12	614-XX-432-31-012000	614-XX-432-31-002000	614-XX-432-31-018000
24	1.2	0.6	0.7	16	614-XX-624-31-012000	614-XX-624-31-002000	614-XX-624-31-018000
28	1.4	0.6	0.7	14	614-XX-628-31-012000	614-XX-628-31-002000	614-XX-628-31-018000
32	1.6	0.6	0.7	12	614-XX-632-31-012000	614-XX-632-31-002000	614-XX-632-31-018000
36	1.8	0.6	0.7	11	614-XX-636-31-012000	614-XX-636-31-002000	614-XX-636-31-018000
40	2.0	0.6	0.7	10	614-XX-640-31-012000	614-XX-640-31-002000	614-XX-640-31-018000
42	2.1	0.6	0.7	9	614-XX-642-31-012000	614-XX-642-31-002000	614-XX-642-31-018000
48	2.4	0.6	0.7	8	614-XX-648-31-012000	614-XX-648-31-002000	614-XX-648-31-018000
50	2.5	0.6	0.7	8	614-XX-650-31-012000	614-XX-650-31-002000	614-XX-650-31-018000
52	2.6	0.6	0.7	7	614-XX-652-31-012000	614-XX-652-31-002000	614-XX-652-31-018000
50	2.5	0.9	1.0	8	614-XX-950-31-012000	614-XX-950-31-002000	614-XX-950-31-018000
52	2.6	0.9	1.0	7	614-XX-952-31-012000	614-XX-952-31-002000	614-XX-952-31-018000
64	3.2	0.9	1.0	6	614-XX-964-31-012000	614-XX-964-31-002000	614-XX-964-31-018000
						40 ^	

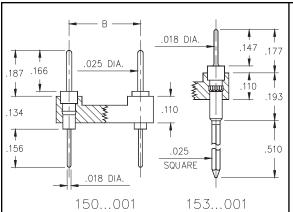
 SPECIFY PLATING CODE XX=
 93
 43 ◊

 Sleeve (Pin)
 ② 200μ°Sn/Pb
 200μ°Sn

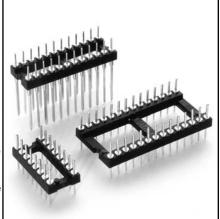
 Contact (Clip)
 ③ 30μ° Au
 30μ° Au



DUAL-IN-LINE PIN HEADERS Solder Tail and Wrapost Open Frame



- Series 150 DIL Headers are equipped with .025" dia. pins MM #0290. See page 182 for details.
- Series 153 DIL Headers have 3-level wraposts MM #5301.
 See page 194 for details.
- Both series have .018" dia. solder tails which are pluggable into standard contacts.
- Insulators are high temperature thermoplastic.



Total number of pins	B 0 0	<i>22</i>	C C (TYP)	Quantity per tube	
P	Α	В	С		Solder Tail
10	0.5	0.2	0.3	40	150-XX-210-00-001
4	0.2	0.3	0.4	102	150-XX-304-00-0010
6	0.3	0.3	0.4	67	150-XX-306-00-001
8	0.4	0.3	0.4	50	150-XX-308-00-001
10	0.5	0.3	0.4	40	150-XX-310-00-001
14	0.7	0.3	0.4	29	150-XX-314-00-001
16	0.8	0.3	0.4	25	150-XX-316-00-001
18	0.9	0.3	0.4	22	150-XX-318-00-001
20	1.0	0.3	0.4	20	150-XX-320-00-001
22	1.1	0.3	0.4	18	150-XX-322-00-0010
24	1.2	0.3	0.4	16	150-XX-324-00-0010
28	1.4	0.3	0.4	14	150-XX-328-00-0010
20	1.0	0.4	0.5	20	150-XX-420-00-0010
22	1.1	0.4	0.5	18	150-XX-422-00-0010
24	1.2	0.4	0.5	16	150-XX-424-00-0010
28	1.4	0.4	0.5	14	150-XX-428-00-0010
32	1.6	0.4	0.5	12	150-XX-432-00-0010
24	1.2	0.6	0.7	16	150-XX-624-00-0010
28	1.4	0.6	0.7	14	150-XX-628-00-0010
32	1.6	0.6	0.7	12	150-XX-632-00-0010

Ordering Information

3 Level Wrapost 000 153-10-210-00-001000 000 153-10-304-00-001000 000 153-10-306-00-001000 000 153-10-308-00-001000 000 153-10-310-00-001000 000 153-10-314-00-001000 000 153-10-316-00-001000 000 153-10-318-00-001000 000 153-10-320-00-001000 000 153-10-322-00-001000 000 153-10-324-00-001000 000 153-10-328-00-001000 000 153-10-420-00-001000 000 153-10-422-00-001000 000 153-10-424-00-001000 000 153-10-428-00-001000 000 153-10-432-00-001000 000 153-10-624-00-001000 000 153-10-628-00-001000 000 153-10-632-00-001000 150-XX-636-00-001000 153-10-636-00-001000 150-XX-640-00-001000 153-10-640-00-001000 150-XX-642-00-001000 153-10-642-00-001000 150-XX-648-00-001000 153-10-648-00-001000 150-XX-650-00-001000 153-10-650-00-001000 150-XX-652-00-001000 153-10-652-00-001000 150-XX-950-00-001000 153-10-950-00-001000 150-XX-952-00-001000 153-10-952-00-001000 150-XX-964-00-001000 153-10-964-00-001000

RoHS 2002/95/EC

For RoHS compliance select \diamondsuit plating code.

For Electrical, Mechanical & Enviromental Data, See pg. 4

XX=Plating Code See Below

1.8

2.0

2.1

2.4

2.5

2.6

2.5

2.6

3.2

36

40

42

48

50

52

50

52

64

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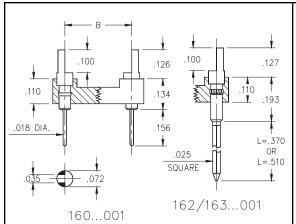
8

7

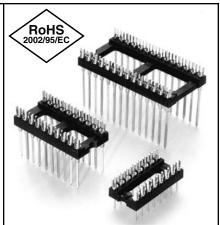
6



DUAL-IN-LINE SLOTTED HEADERS Solder Tail and Wrapost Open Frame



- Series 160, 162, and 163 DIL Headers are equipped with slotted heads to accept wires or component leads.
- Series 160 terminations are pluggable .018" dia. solder tails MM #0282, See page 183 for details. Series 162 and 163 terminations are two or three level wraposts MM #1106. See page 195 for details.
- Insulators are high temperature thermoplastic.



For Electrical, Mechanical & Enviromental Data, See pg. 4

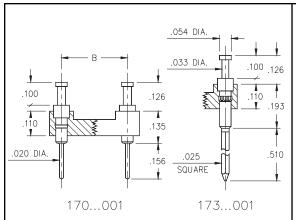
Ordering Information

XX=Plating Code See Below

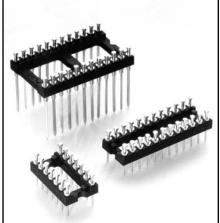
Total n of p	1	100	(TYP)	Qua per						
	Α	В	С		Solder Tail	2	2 Level Wrap L = .370		3 Level W L = .5	
10	0.5	0.2	0.3	41	160-XX-210-00-001000	162-	-10-210-00-0	001000 1	163-10-210-0	0-001000
4	0.2	0.3	0.4	102	160-XX-304-00-001000		10-304-00-0		163-10-304-0	
6	0.3	0.3	0.4	67	160-XX-306-00-001000		10-306-00-0		163-10-306-0	
8	0.4	0.3	0.4	50	160-XX-308-00-001000		-10-308-00-0		163-10-308-0	
10	0.5	0.3	0.4	40	160-XX-310-00-001000		·10-310-00-0		163-10-310-0	
14	0.7	0.3	0.4	28	160-XX-314-00-001000		-10-314-00-0		163-10-314-0	
16	0.8	0.3	0.4	25	160-XX-316-00-001000	162-	·10-316-00-0	001000 1	163-10-316-0	0-001000
18	0.9	0.3	0.4	22	160-XX-318-00-001000	162	-10-318-00-0	001000 1	163-10-318-0	0-001000
20	1.0	0.3	0.4	20	160-XX-320-00-001000	162-	10-320-00-0	001000 1	163-10-320-0	0-001000
22	1.0	0.3	0.4	18	160-XX-322-00-001000	162-	10-322-00-0	001000 1	163-10-322-0	0-001000
24	1.2	0.3	0.4	16	160-XX-324-00-001000	162	-10-324-00-0	001000	163-10-324-0	0-001000
28	1.4	0.3	0.4	14	160-XX-328-00-001000	162-	-10-328-00-0	001000 1	163-10-328-0	0-001000
20	1.0	0.4	0.5	20	160-XX-420-00-001000		-10-420-00-0		163-10-420-0	
22	1.1	0.4	0.5	18	160-XX-422-00-001000		-10-422-00-0		163-10-422-0	
24	1.2	0.4	0.5	16	160-XX-424-00-001000		-10-424-00-0		163-10-424-0	
28	1.4	0.4	0.5	14	160-XX-428-00-001000	162	-10-428-00-0	001000 1	163-10-428-0	0-001000
32	1.6	0.4	0.5	12	160-XX-432-00-001000	162	-10-432-00-0	001000 1	163-10-432-0	0-001000
24	1.2	0.6	0.7	16	160-XX-624-00-001000		-10-624-00-0		163-10-624-0	
28	1.4	0.6	0.7	14	160-XX-628-00-001000		-10-628-00-0		163-10-628-0	
32	1.6	0.6	0.7	12	160-XX-632-00-001000		-10-632-00-0		163-10-632-0	
36	1.8	0.6	0.7	11	160-XX-636-00-001000		-10-636-00-0		163-10-636-0	
40	2.0	0.6	0.7	10	160-XX-640-00-001000		-10-640-00-0		163-10-640-0	
42	2.1	0.6	0.7	9	160-XX-642-00-001000		-10-642-00-		163-10-642-0	
48	2.4	0.6	0.7	8	160-XX-648-00-001000		-10-648-00-0		163-10-648-0	
50	2.5	0.6	0.7	8	160-XX-650-00-001000		-10-650-00-0		163-10-650-0	
52	2.6	0.6	0.7	7	160-XX-652-00-001000	162	-10-652-00-0	001000	163-10-652-0	0-001000
50	2.5	0.9	1.0	8	160-XX-950-00-001000		-10-950-00-0		163-10-950-0	
52	2.6	0.9	1.0	7	160-XX-952-00-001000		-10-952-00-0		163-10-952-0	
64	3.2	0.9	1.0	6	160-XX-964-00-001000	162	-10-964-00-0	001000	163-10-964-0	0-001000
Г	<u> </u>	110		<u> </u>	SPECIFY PLATING CODE X		10♦	90	40♦	
		HS comp platin					· ·			
l l	307001	· Piatill	y ooue.	J	Pin Plating — □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	_	10μ" Au	200μ" Sn/Pb	200μ" Sn	1



DUAL-IN-LINE TURRET HEADERS Solder Tail and Wrapost Open Frame



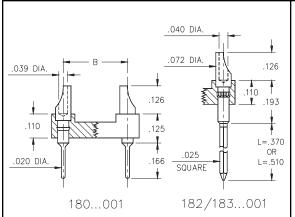
- Series 170 &173 DIL headers are equipped with turret heads for wiring applications.
- Series 170 terminations are pluggable .020" dia. solder tails MM #0700, See page 183 for details. Series 173 terminations are three level wraposts MM #0730. See page 195 for details.
- Insulators are high temperature thermoplastic.



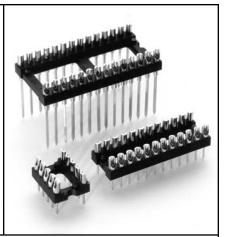
Total number of pins	B 0 C	77	00 C C	Quantity per tube		0	Ordering Information					
Tota	A	B	С	o g	Solo	ler Tail	3	Level Wra	post			
10	0.5	0.2	0.3	41	170-XX-2	10-00-001000	173-	10-210-00-0	001000			
4 6 8 10 14 16 18 20 22 24 28 20 22 24 28 32 24 28 32 40 42 48 50 52	0.2 0.3 0.4 0.5 0.7 0.8 0.9 1.0 1.1 1.2 1.4 1.6 1.2 1.4 1.6 1.2 1.4 1.6 1.2 1.4 1.6 1.8 2.0 2.1 2.4 2.5 2.6	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	102 67 50 40 28 25 22 20 18 16 14 20 18 16 14 12 11 10 9 8 8 7	170-XX-3(170-XX-3: 170-XX-3: 170-XX-3: 170-XX-3: 170-XX-3: 170-XX-3: 170-XX-3: 170-XX-4: 170-XX-4: 170-XX-4: 170-XX-4: 170-XX-6:	04-00-001000 06-00-001000 08-00-001000 10-00-001000 14-00-001000 18-00-001000 20-00-001000 22-00-001000 24-00-001000 24-00-001000 24-00-001000 24-00-001000 24-00-001000 24-00-001000 24-00-001000 24-00-001000 24-00-001000 25-00-001000 26-00-001000 27-00-001000 28-00-001000 28-00-001000 29-00-001000 20-00-001000 20-00-001000 20-00-001000 20-00-001000	173- 173- 173- 173- 173- 173- 173- 173-	10-304-00-0 10-306-00-0 10-318-00-0 10-314-00-0 10-318-00-0 10-322-00-0 10-324-00-0 10-328-00-0 10-422-00-0 10-423-00-0 10-423-00-0 10-632-00-0 10-632-00-0 10-636-00-0 10-642-00-0 10-642-00-0 10-642-00-0 10-642-00-0 10-642-00-0 10-642-00-0 10-642-00-0 10-642-00-0 10-652-00-0 10-652-00-0	001000 001000 001000 001000 001000 001000 001000 001000 001000 001000 001000 001000 001000 001000 001000 001000 001000 001000		For RoHS conselect ♦ plan	mpliance ting code.
50 52 64	2.5 2.6 3.2	0.9 0.9 0.9	1.0 1.0 1.0	8 7 6	170-XX-99	50-00-001000 52-00-001000 64-00-001000	173- 173-	10-950-00-(10-952-00-(10-964-00-(001000		XX=Plating See Be	
						PLATING CODE		10♦	90		40♦	
1				1	Pin Plating		>	10μ" Au	200μ" Sr	า/Pb	200µ" Sn	



DUAL-IN-LINE SOLDER CUP HEADERS Solder Tail and Wrapost Open Frame



- Series 180, 182, and 183
 DIL Headers are equipped with solder cups for wiring applications.
- Series 180 terminations are pluggable .020" dia. solder tails MM #8000, See page 183 for details. Series 182 and 183 terminations are two or three level wraposts MM #8301. See page 194 for details.
- Insulators are high temperature thermoplastic.



2	Α	В	С	1
otal number of pins	B 00	77	00 C C (TYP)	Quantity

For Electrical, Mechanical & Enviromental Data, See pg. 4

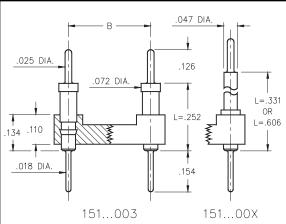
Ordering Information



Total r	 	100	(TYP)	Qua						\checkmark
Το	Α	В	С		Solder Tail	2	2 Level Wra L = .370		3 Level W L = .	
10	0.5	0.2	0.3	41	180-10-210-00-001000	182	-10-210-00-	001000	183-10-210-0	00-001000
4	0.2	0.3	0.4	102	180-10-304-00-001000		-10-304-00-		183-10-304-0	
6	0.3	0.3	0.4	67	180-10-306-00-001000	182	-10-306-00-	001000	183-10-306-0	00-001000
8	0.4	0.3	0.4	50	180-10-308-00-001000	1	-10-308-00-		183-10-308-0	
10	0.5	0.3	0.4	40	180-10-310-00-001000	1	-10-310-00-		183-10-310-0	
14	0.7	0.3	0.4	28	180-10-314-00-001000	1	-10-314-00-0		183-10-314-	
16	0.8	0.3	0.4	25	180-10-316-00-001000	182	-10-316-00-	001000	183-10-316-	00-001000
18	0.9	0.3	0.4	22	180-10-318-00-001000	182	-10-318-00-	001000	183-10-318-	00-001000
20	1.0	0.3	0.4	20	180-10-320-00-001000	182	-10-320-00-	001000	183-10-320-	00-001000
22	1.1	0.3	0.4	18	180-10-322-00-001000	182	10-322-00-0	001000	183-10-322-	00-001000
24	1.2	0.3	0.4	16	180-10-324-00-001000	182	10-324-00-0	001000	183-10-324-	00-001000
28	1.4	0.3	0.4	14	180-10-328-00-001000	182	-10-328-00-0	001000	183-10-328-	00-001000
20	1.0	0.4	0.5	20	180-10-420-00-001000	182	-10-420-00-	001000	183-10-420-	00-001000
22	1.1	0.4	0.5	18	180-10-422-00-001000	182	-10-422-00-	001000	183-10-422-	00-001000
24	1.2	0.4	0.5	16	180-10-424-00-001000	182	-10-424-00-	001000	183-10-424-00-001000	
28	1.4	0.4	0.5	14	180-10-428-00-001000	182	-10-428-00-0	001000	183-10-428-00-0010	
32	1.6	0.4	0.5	12	180-10-432-00-001000	182	-10-432-00-0	001000	183-10-432-	00-001000
24	1.2	0.6	0.7	16	180-10-624-00-001000	1	-10-624-00-0		183-10-624-	
28	1.4	0.6	0.7	14	180-10-628-00-001000	1	-10-628-00-0		183-10-628-	
32	1.6	0.6	0.7	12	180-10-632-00-001000	1	-10-632-00-0		183-10-632-	
36	1.8	0.6	0.7	11	180-10-636-00-001000	1	-10-636-00-0		183-10-636-	
40	2.0	0.6	0.7	10	180-10-640-00-001000	182	-10-640-00-0	001000	183-10-640-	
42	2.1	0.6	0.7	9	180-10-642-00-001000	_	-10-642-00-		183-10-642-	
48	2.4	0.6	0.7	8	180-10-648-00-001000	1	-10-648-00-		183-10-648-	
50	2.5	0.6	0.7	8	180-10-650-00-001000	1	-10-650-00-		183-10-650-	
52	2.6	0.6	0.7	7	180-10-652-00-001000	182	-10-652-00-	001000	183-10-652-	00-001000
50	2.5	0.9	1.0	8	180-10-950-00-001000	182	-10-950-00-	001000	183-10-950-	00-001000
52	2.6	0.9	1.0	7	180-10-952-00-001000	182	-10-952-00-	001000	183-10-952-	00-001000
64	3.2	0.9	1.0	6	180-10-964-00-001000	182	-10-964-00-	001000	183-10-964-	00-001000
Г	For Rol	HS comp	liance	1	PLATING CODE =	1	10♦			
	select	plating	g code.		Pin Plating ————————————————————————————————————		10μ" Au			



DUAL-IN-LINE PIN HEADERS Interconnect **Open Frame**



- Series 151 DIL Headers combine .025" dia. tails with pluggable .018" dia. solder tails.
- Series: 151...003 use MM #5503 pins 151...004 use MM #5504 pins 151...005 use MM #5505 pins See page 181 for details.
- Insulators are high temperature thermoplastic.



₽				7
र्घ ठ	' -> 	.100	(TYP)	g
num pins	1 OC	0	<u> </u>	anti
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ber	100	न ि	50 7	٠ _
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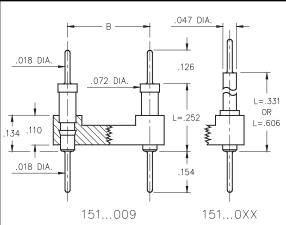
Ordering Information



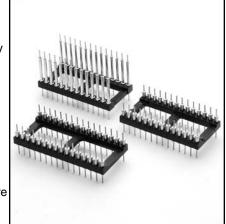
Total number of pins	B 0 0	77	C C (TYP)	Quantity per tube	For Electrical, Mechanical & Environmental Data, See pg. 4 Ordering Information					RoHS 002/95/EC
۲	Α	В	С		L = .252		L = .331		L = .6	606
10	0.5	0.2	0.3	41	151-10-210-00-003000	151-	10-210-00-0	004000	151-10-210-0	00-005000
4	0.2	0.3	0.4	102	151-10-304-00-003000		10-304-00-0	I	151-10-304-0	
6	0.3	0.3	0.4	67	151-10-306-00-003000		10-306-00-0		151-10-306-0	
8	0.4	0.3	0.4	50	151-10-308-00-003000		10-308-00-0		151-10-308-0	
10	0.5	0.3	0.4	40	151-10-310-00-003000	151-	10-310-00-0	004000	151-10-310-0	00-005000
14	0.7	0.3	0.4	28	151-10-314-00-003000	151-	10-314-00-0	004000	151-10-314-0	00-005000
16	0.8	0.3	0.4	25	151-10-316-00-003000	151-	10-316-00-0	004000	151-10-316-0	00-005000
18	0.9	0.3	0.4	22	151-10-318-00-003000	151-	10-318-00-0	004000	151-10-318-0	00-005000
20	1.0	0.3	0.4	20	151-10-320-00-003000	151-	10-320-00-0	004000	151-10-320-0	00-005000
22	1.1	0.3	0.4	18	151-10-322-00-003000	151-	10-322-00-0	004000	151-10-322-0	00-005000
24	1.2	0.3	0.4	16	151-10-324-00-003000	151-	10-324-00-0	004000	151-10-324-0	00-005000
28	1.4	0.3	0.4	14	151-10-328-00-003000	151-	10-328-00-0	004000	151-10-328-0	00-005000
20	1.0	0.4	0.5	20	151-10-420-00-003000	151-	10-420-00-0	004000	151-10-420-0	00-005000
22	1.1	0.4	0.5	18	151-10-422-00-003000	151-	10-422-00-0	004000	151-10-422-00-005000	
24	1.2	0.4	0.5	16	151-10-424-00-003000	151-	10-424-00-0	004000	151-10-424-00-00500	
28	1.4	0.4	0.5	14	151-10-428-00-003000	151-	151-10-428-00-004000 151-10-4		151-10-428-0	00-005000
32	1.6	0.4	0.5	12	151-10-432-00-003000	151-	10-432-00-0	004000	151-10-432-0	00-005000
24	1.2	0.6	0.7	16	151-10-624-00-003000		10-624-00-0	I	151-10-624-0	
28	1.4	0.6	0.7	14	151-10-628-00-003000		10-628-00-0	I	151-10-628-0	
32	1.6	0.6	0.7	12	151-10-632-00-003000		10-632-00-0		151-10-632-0	
36	1.8	0.6	0.7	11	151-10-636-00-003000	151-	10-636-00-0	004000	151-10-636-0	00-005000
40	2.0	0.6	0.7	10	151-10-640-00-003000	151-	10-640-00-0	004000	151-10-640-0	00-005000
42	2.1	0.6	0.7	9	151-10-642-00-003000	151-	10-642-00-0	004000	151-10-642-0	00-005000
48	2.4	0.6	0.7	8	151-10-648-00-003000	151	-10-648-00-0	004000	151-10-648-	00-005000
50	2.5	0.6	0.7	8	151-10-650-00-003000	151	-10-650-00-0	004000	151-10-650-	00-005000
52	2.6	0.6	0.7	7	151-10-652-00-003000	151	-10-652-00-0	004000	151-10-652-	00-005000
50	2.5	0.9	1.0	8	151-10-950-00-003000	151	-10-950-00-0	004000	151-10-950-	00-005000
52	2.6	0.9	1.0	7	151-10-952-00-003000	151	-10-952-00-0	004000	151-10-952-	00-005000
64	3.2	0.9	1.0	6	151-10-964-00-003000	151-	10-964-00-0	004000	151-10-964-0	00-005000
Г	For Ro	HS comp	liance]	PLATING CODE =	l	10♦			
		platin			Pin Plating		10u" Au			



DUAL-IN-LINE PIN HEADERS Interconnect **Open Frame**



- Series 151 DIL Headers use .018" dia. solder tails at both ends make this header entirely pluggable.
- · Series: 151...009 use MM #5509 pins 151...010 use MM #5510 pins 151...011 use MM #5511 pins See pages 179 and 181 for details.
- · Insulators are high temperature thermoplastic.



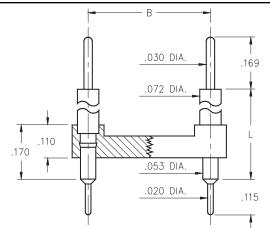
Ordering Information



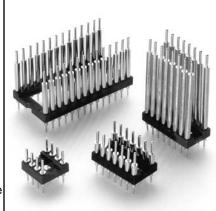
Total number of pins	B 0 C	77		Quantity per tube	For Electrical, Mechanical & Enviromental Data, See pg. 4 Ordering Informat			ormatio	on <	RoHS 002/95/EC
۲	Α	В	С		L = .252		L = .331		L = .606	
10	0.5	0.2	0.3	41	151-10-210-00-009000	151	-10-210-00-0	010000	151-10-210-	00-011000
4	0.2	0.3	0.4	102	151-10-304-00-009000	1	-10-304-00-0		151-10-304-	
6	0.3	0.3	0.4	67	151-10-306-00-009000		-10-306-00-0		151-10-306-	
8	0.4	0.3	0.4	50	151-10-308-00-009000		-10-308-00-0		151-10-308-	
10	0.5	0.3	0.4	40	151-10-310-00-009000		-10-310-00-0		151-10-310-	
14	0.7	0.3	0.4	28	151-10-314-00-009000	1	-10-314-00-0		151-10-314-	
16	0.8	0.3	0.4	25	151-10-316-00-009000	1	-10-316-00-0		151-10-316-	
18	0.9	0.3	0.4	22	151-10-318-00-009000	1	-10-318-00-0		151-10-318-	
20	1.0	0.3	0.4	20	151-10-320-00-009000	1	-10-320-00-0		151-10-320-	
22	1.1	0.3	0.4	18	151-10-322-00-009000	1	-10-322-00-0		151-10-322-	
24	1.2	0.3	0.4	16		151-10-324-00-009000 151-10-324-00-010000			151-10-324-	
28	1.4	0.3	0.4	14	151-10-328-00-009000	151-10-328-00-009000 151-10-328-00-010000		010000	151-10-328-	00-011000
20	1.0	0.4	0.5	20	151-10-420-00-009000		-10-420-00-0		151-10-420-	
22	1.1	0.4	0.5	18	151-10-422-00-009000		-10-422-00-0		151-10-422-	
24	1.2	0.4	0.5	16	151-10-424-00-009000	1	-10-424-00-0		151-10-424-	
28	1.4	0.4	0.5	14	151-10-428-00-009000	1	-10-428-00-0		151-10-428-	
32	1.6	0.4	0.5	12	151-10-432-00-009000	151	-10-432-00-0	010000	151-10-432-	00-011000
24	1.2	0.6	0.7	16	151-10-624-00-009000	1	-10-624-00-0		151-10-624-	
28	1.4	0.6	0.7	14	151-10-628-00-009000	_	-10-628-00-0		151-10-628-	
32	1.6	0.6	0.7	12	151-10-632-00-009000		-10-632-00-0		151-10-632-	
36	1.8	0.6	0.7	11	151-10-636-00-009000	1	-10-636-00-0		151-10-636-	
40	2.0	0.6	0.7	10	151-10-640-00-009000	1	-10-640-00-0		151-10-640-	
42	2.1	0.6	0.7	9	151-10-642-00-009000	1	-10-642-00-0		151-10-642-	
48	2.4	0.6	0.7	8	151-10-648-00-009000	1	10-648-00-0		151-10-648-0	
50	2.5	0.6	0.7	8	151-10-650-00-009000		10-650-00-0		151-10-650-0	
52	2.6	0.6	0.7	7	151-10-652-00-009000	151-	10-652-00-0	10000	151-10-652-0	00-011000
50	2.5	0.9	1.0	8	151-10-950-00-009000		10-950-00-0		151-10-950-0	
52	2.6	0.9	1.0	7	151-10-952-00-009000		10-952-00-0		151-10-952-0	
64	3.2	0.9	1.0	6	151-10-964-00-009000	151	-10-964-00-0	010000	151-10-964-	00-011000
Г	For Pol	HS comp	lianco	<u> </u>	PLATING CODE =		10♦			
		no comp ♦ platin			Pin Plating ==		10μ" Au			
. ∟			- ' ' '	4	rin rialing — CCC		ιυμ Au	l		l



DUAL-IN-LINE PIN HEADERS Interconnect **Open Frame**



- Series 134 DIL Headers combine .030" diameter pins with pluggable .020" diameter solder tails.
- · Series:
 - 134...020 use MM #3402 pins 134...010 use MM #3401 pins 134...050 use MM #3405 pins 134...000 use MM #3400 pins 134...100 use MM #3410 pins See pages 182 for details.
- Insulators are high temperature thermoplastic.



number f pins 000

For Electrical, Mechanical & Enviromental Data, See pg. 4

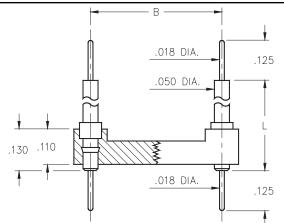
Ordering Information



م ق		.100	(TIP)	ပြင္က						
Tota	Α	В	С		L = .190	L = .236	L = .315	L = .605		L = 1.070
10	0.5	0.2	0.3	41	134-10-210-00-020000	134-10-210-00-010000	134-10-210-00-050000	134-10-210-00-0000	00 134	-10-210-00-100000
4	0.2	0.3	0.4	102	134-10-304-00-020000	134-10-304-00-010000	134-10-304-00-050000	134-10-304-00-0000	00 134	-10-304-00-100000
6	0.3	0.3	0.4	67	134-10-306-00-020000	134-10-306-00-010000	134-10-306-00-050000	134-10-306-00-0000	00 134	-10-306-00-100000
8	0.4	0.3	0.4	50	134-10-308-00-020000	134-10-308-00-010000	134-10-308-00-050000	134-10-308-00-0000	00 134	-10-308-00-100000
10	0.5	0.3	0.4	40	134-10-310-00-020000	134-10-310-00-010000	134-10-310-00-050000	134-10-310-00-0000	00 134	-10-310-00-100000
14	0.7	0.3	0.4	28	134-10-314-00-020000	134-10-314-00-010000	134-10-314-00-050000	134-10-314-00-0000	00 134	I-10-314-00-100000
16	0.8	0.3	0.4	25	134-10-316-00-020000	134-10-316-00-010000	134-10-316-00-050000	134-10-316-00-0000	00 134	I-10-316-00-100000
18	0.9	0.3	0.4	22	134-10-318-00-020000	134-10-318-00-010000	134-10-318-00-050000	134-10-318-00-0000	00 134	I-10-318-00-100000
20	1.0	0.3	0.4	20	134-10-320-00-020000	134-10-320-00-010000	134-10-320-00-050000	134-10-320-00-0000	00 134	l-10-320-00-100000
22	1.1	0.3	0.4	18	134-10-322-00-020000	134-10-322-00-010000	134-10-322-00-050000	134-10-322-00-0000	00 134	l-10-322-00-100000
24	1.2	0.3	0.4	16	134-10-324-00-020000	134-10-324-00-010000	134-10-324-00-050000	134-10-324-00-0000	00 134	l-10-324-00-100000
28	1.4	0.3	0.4	14	134-10-328-00-020000	134-10-328-00-010000	134-10-328-00-050000	134-10-328-00-0000	00 134	l-10-328-00-100000
20	1.0	0.4	0.5	20	134-10-420-00-020000	134-10-420-00-010000	134-10-420-00-050000	134-10-420-00-0000	134	I-10-420-00-100000
22	1.1	0.4	0.5	18	134-10-422-00-020000	134-10-422-00-010000	134-10-422-00-050000			I-10-422-00-100000
24	1.2	0.4	0.5	16	134-10-424-00-020000	134-10-424-00-010000	134-10-424-00-050000			I-10-424-00-100000
28	1.4	0.4	0.5	14	134-10-428-00-020000				I-10-428-00-100000	
32	1.6	0.4	0.5	12	134-10-432-00-020000	134-10-432-00-010000	134-10-432-00-050000			1-10-432-00-100000
24	1.2	0.6	0.7	16	134-10-624-00-020000	134-10-624-00-010000	134-10-624-00-050000	134-10-624-00-0000	00 134	I-10-624-00-100000
28	1.4	0.6	0.7	14	134-10-628-00-020000	134-10-628-00-010000	134-10-628-00-050000			I-10-628-00-100000
32	1.6	0.6	0.7	12	134-10-632-00-020000	134-10-632-00-010000	134-10-632-00-050000			I-10-632-00-100000
36	1.8	0.6	0.7	11	134-10-636-00-020000	134-10-636-00-010000	134-10-636-00-050000			I-10-636-00-100000
40	2.0	0.6	0.7	10	134-10-640-00-020000	134-10-640-00-010000	134-10-640-00-050000			I-10-640-00-100000
42	2.1	0.6	0.7	9	134-10-642-00-020000	134-10-642-00-010000	134-10-642-00-050000			I-10-642-00-100000
48	2.4	0.6	0.7	8	134-10-648-00-020000	134-10-648-00-010000	134-10-648-00-050000			I-10-648-00-100000
50	2.5	0.6	0.7	8	134-10-650-00-020000	134-10-650-00-010000	134-10-650-00-050000	134-10-650-00-0000	00 134	l-10-650-00-100000
52	2.6	0.6	0.7	7	134-10-652-00-020000	134-10-652-00-010000	134-10-652-00-050000	134-10-652-00-0000	00 134	l-10-652-00-100000
50	2.5	0.9	1.0	8	134-10-950-00-020000	134-10-950-00-010000	134-10-950-00-050000	134-10-950-00-0000	00 134	l-10-950-00-100000
52	2.6	0.9	1.0	7	134-10-952-00-020000	134-10-952-00-010000	134-10-952-00-050000	134-10-952-00-0000	00 134	l-10-952-00-100000
64	3.2	0.9	1.0	6	134-10-964-00-020000	134-10-964-00-010000	134-10-964-00-050000	134-10-964-00-0000	00 134	-10-964-00-100000
				<u> </u>	DI ATINIO O		100			
		HS com			PLATING C		10♦			
L	seiect	platii	ıg coae.	· _	Pin Plating		10μ" Au			



DUAL-IN-LINE HEADERS Interconnect Open Frame



- Series 142 DIL Headers have double ended .018" diameter pluggable solder tails.
- Used to interconnect PC Boards with spacings of .210", .335", .585" or .835" Series 142 use MM #4259-1, -2, -3 or -4 pins. See page 179 for details.
- Insulators are high temperature thermoplastic.



number pins	B OC	77	00 0	Quantity per tube	Ordering Information				
Total	' A	100 B	(TYP)	Q. Per	L=.210	L=.335	L=.585	L=.835	
									
6	0.3	0.3	0.4	67	142-XX-306-00-591000	142-XX-306-00-592000	142-XX-306-00-593000	142-XX-306-00-594000	
8	0.4	0.3	0.4	50	142-XX-308-00-591000	142-XX-308-00-592000	142-XX-308-00-593000	142-XX-308-00-594000	
14	0.7	0.3	0.4	29	142-XX-314-00-591000	142-XX-314-00-592000	142-XX-314-00-593000	142-XX-314-00-594000	
16	0.8	0.3	0.4	25	142-XX-316-00-591000	142-XX-316-00-592000	142-XX-316-00-593000	142-XX-316-00-594000	
18	0.9	0.3	0.4	22	142-XX-318-00-591000	142-XX-318-00-592000	142-XX-318-00-593000	142-XX-318-00-594000	
20	1.0	0.3	0.4	40	142-XX-320-00-591000	142-XX-320-00-592000	142-XX-320-00-593000	142-XX-320-00-594000	
24	1.2	0.3	0.4	17	142-XX-324-00-591000	142-XX-324-00-592000	142-XX-324-00-593000	142-XX-324-00-594000	
22	1.1	0.4	0.5	14	142-XX-422-00-591000	142-XX-422-00-592000	142-XX-422-00-593000	142-XX-422-00-594000	
24	1.2	0.6	0.7	16	142-XX-624-00-591000	142-XX-624-00-592000	142-XX-624-00-593000	142-XX-624-00-594000	
28	1.4	0.6	0.7	14	142-XX-628-00-591000	142-XX-628-00-592000	142-XX-628-00-593000	142-XX-628-00-594000	
32	1.6	0.6	0.7	12	142-XX-632-00-591000	142-XX-632-00-592000	142-XX-632-00-593000	142-XX-632-00-594000	
40	2.0	0.6	0.7	10	142-XX-640-00-591000	142-XX-640-00-592000	142-XX-640-00-593000	142-XX-640-00-594000	
				1					

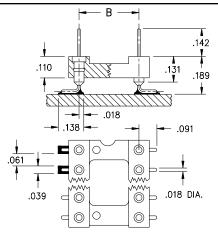




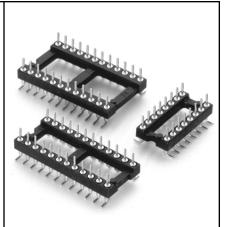
SPECIFY PLATING CODE XX=	10♦	90	40♦	
Pin Plating	10μ" Au	200μ" Sn/Pb	200μ" Sn	



DUAL-IN-LINE HEADERS Surface Mount, Gull Wing Open Frame



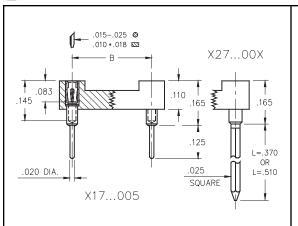
- Surface mount Gull Wing DIP sockets for devices featuring .100" lead spacing.
- Gull wing terminals for max. strength and easy in-circuit test.
- Series 150 use MM #3404 pins. See page 179 for details.
- Insulators are high temperature thermoplastic.



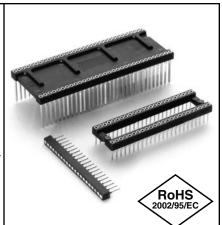
Total number of pins	B 27		Ouantity per tube		Ordering Information
10	0.5	0.2	0.3	40	150-10-210-00-106000
4 6 8 10 14 16 18 20 22 24 28 20 22 24 28 32 24 28 32 36 40	0.2 0.3 0.4 0.5 0.7 0.8 0.9 1.0 1.1 1.2 1.4 1.6 1.2 1.4 1.6 1.8 2.0	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.4 0.4 0.4 0.6 0.6 0.6 0.6	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.5 0.5 0.7 0.7 0.7 0.7	102 67 50 40 29 25 22 20 18 16 14 20 18 16 14 12 16 14 12	150-10-304-00-106000 150-10-306-00-106000 150-10-308-00-106000 150-10-310-00-106000 150-10-314-00-106000 150-10-316-00-106000 150-10-318-00-106000 150-10-320-00-106000 150-10-322-00-106000 150-10-324-00-106000 150-10-328-00-106000 150-10-422-00-106000 150-10-422-00-106000 150-10-422-00-106000 150-10-428-00-106000 150-10-428-00-106000 150-10-624-00-106000 150-10-632-00-106000 150-10-632-00-106000
42 48 50 52 50	2.1 2.4 2.5 2.6 2.5	0.6 0.6 0.6 0.6 0.9	0.7 0.7 0.7 0.7	9 8 8 7 8	150-10-642-00-106000 150-10-648-00-106000 150-10-650-00-106000 150-10-652-00-106000 150-10-950-00-106000
52 64	2.6 3.2	0.9 0.9	1.0 1.0	7 6	Data, See pg. 4 150-10-952-00-106000 150-10-964-00-10-964-00-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-10-964-00-960-00-964-00-965-00-960-00-960-00-960-00-960-00-960-00-960-00-960-00-9
	Coplanarity .005". For Pin Counts >20 positions consult Technical Support.			20 positions	PLATING CODE = $10 \diamondsuit$ Pin Plating 10μ Au

DUAL-IN-LINE SOCKETS Shrink DIP Sockets and Strips Solder Tail and Wrapost

Series 117, 127, 217 227, 317, 327



- High density DIP sockets and strips for devices featuring .070" lead spacing.
- Solder tails use MM #1802 receptacles, See page 140 for details. Wraposts use MM # 1702-2 or 1703-3 receptacles, See page 166 for details.
- Receptacles use Hi-Rel, 4finger #30 contact and 6-finger #43 contact, both rated at 3 amps. See pages 218 & 220.
- Insulators are high temp. thermoplastic.



Total o	Α	В	С	•
tal number of pins	BOC	77	00 T C 00 T	Quantity per tube

For Electrical. Mechanical & Enviromental Data, See pg. 4

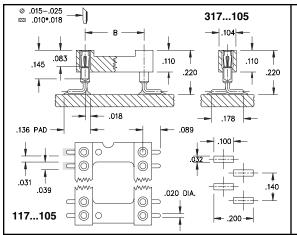
Ordering Information (

XX=Plating Code See Below

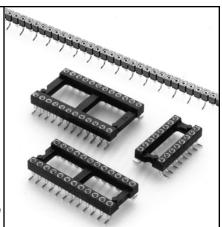
Total n of p	1	070		Quar per t	Data, See pg. 4				
<u>5</u>	Α	В	С		Solder Tail	2 Level Wrapost L = .370	3 Level Wrapost L = .510		
					OPEN FRAME DIP SOCKET				
16	0.572	0.3	0.39	35	117-XX-316-41-005000	127-XX-316-41-002000	127-XX-316-41-003000		
28	0.992	0.4	0.49	20	117-XX-428-41-005000	127-XX-428-41-002000	127-XX-428-41-003000		
30	1.062	0.4	0.49	18	117-XX-430-41-005000	127-XX-430-41-002000	127-XX-430-41-003000		
48	1.692	0.4	0.49	12	117-XX-448-41-005000	127-XX-448-41-002000	127-XX-448-41-003000		
20	0.712	0.6	0.69	28	117-XX-620-41-005000	127-XX-620-41-002000	127-XX-620-41-003000		
28	0.992	0.6	0.69	20	117-XX-628-41-005000	127-XX-628-41-002000	127-XX-628-41-003000		
40	1.412	0.6	0.69	14	117-XX-640-41-005000	127-XX-640-41-002000	127-XX-640-41-003000		
42	1.482	0.6	0.69	13	117-XX-642-41-005000	127-XX-642-41-002000	127-XX-642-41-003000		
48	1.692	0.6	0.69	11	117-XX-648-41-005000	127-XX-648-41-002000	127-XX-648-41-003000		
52	1.832	0.6	0.69	11	117-XX-652-41-005000	127-XX-652-41-002000	127-XX-652-41-003000		
56	1.972	0.6	0.69	10	117-XX-656-41-005000	127-XX-656-41-002000	127-XX-656-41-003000		
64	2.252	0.6	0.69	8	117-XX-664-41-005000	127-XX-664-41-002000	127-XX-664-41-003000		
68	2.392	0.6	0.69	8	117-XX-668-41-005000	127-XX-668-41-002000	127-XX-668-41-003000		
64	2.252	0.75	0.84	8	117-XX-764-41-005000	127-XX-764-41-002000	127-XX-764-41-003000		
					CL	OSED FRAME DIP SOCI	KET		
64	2.252	0.75	0.84	8	217-XX-764-41-005000	227-XX-764-41-002000	227-XX-764-41-003000		
		= 1.482 FOR			SII	NGLE ROW STRIP SOCK	ET		
	(0,0,0	070 (TYP)		.104	If desired, w	re will supply any length up	to 21 pins.		
21	1.482		.104	-	317-93-121-41-005000	327-XX-121-41-002000	327-XX-121-41-003000		
	Fare	Dello :			SPECIFY PLATING CODE XX=	93	43♦		
			omplianc ating cod		Sleeve (Pin)	200μ" Sn/Pb	200μ"Sn		
					Contact (Clip)	30μ" Au	30µ" Au		



DUAL-IN-LINE SOCKETS Gull Wing Shrink DIP Sockets & Strips Surface Mount Solder Tail



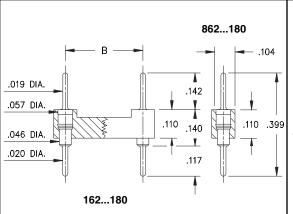
- Surface mount Gull Wing DIP sockets for devices featuring .070" lead spacing.
- Gull wing terminals for max. strength and easy in-circuit test.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Series 117 and 317 use MM #1802 pins. See page 140 for details.
- Insulators are high temperature thermoplastic.



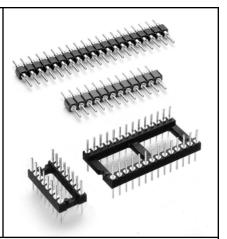
Total number of pins	A 000 000 C C 070 (TYP)			Quantity per tube	Ordering Information				
1	Α	В	С						
16	0.572	0.3	0.39	35	117-XX-316-41-105000				
28	0.992	0.4	0.49	20	117-XX-428-41-105000 2002/95/EC				
30	1.062	0.4	0.49	18	117-XX-430-41-105000				
48	1.692	0.4	0.49	12	117-XX-448-41-105000 For RoHS compliance select ♦ plating code.				
20	0.712	0.6	0.69	28	117-XX-620-41-105000				
28	0.992	0.6	0.69	20	117-XX-628-41-105000				
40	1.412	0.6	0.69	14	117-XX-640-41-105000				
42	1.482	0.6	0.69	13	117-XX-642-41-105000				
48	1.692	0.6	0.69	12	117-XX-648-41-105000				
52	1.832	0.6	0.69	11	117-XX-652-41-105000				
56	1.972	0.6	0.69	10	117-XX-656-41-105000				
64	2.252	0.6	0.69	9	117-XX-664-41-105000				
68	2.392	0.6	0.69	8	117-XX-668-41-105000				
64	2.252	0.75	0.84	8	117-XX-764-41-105000				
					For Electrical, Mechanical & Environmental Data, See pg. 4 XX=Plating Code See Below				
_	<u> </u>	32 FOR 21	POS	SINGLE ROW STRIP HEADER If desired, we will supply any length up to 21 pins.					
21	1.482		.104	-	317-XX-121-41-105000				
	•				SPECIFY PLATING CODE XX= 13 \$\ightarrow\$ 93 43 \$\ightarrow\$				
	arity .005". F t Technical Si		unts >10 po	ositions	Sleeve (Pin) (β) 10μ" Au 200μ" Sn/Pb 200μ" Sn				
					Contact (Clip) 30μ" Au 30μ" Au 30μ" Au				



DUAL-IN-LINE HEADERS Shrink DIP Headers and Strips Solder Tail



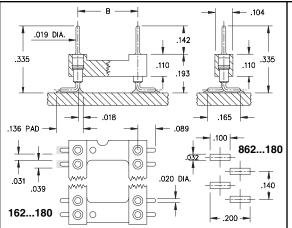
- High density DIP headers and strips for devices featuring .070" lead spacing.
- Series 162 DIP headers use MM #6218 pins. See page 175 for details.
- Series 862 strip headers use MM #6218 pins. See page 175 for details.
- Insulators are high temperature thermoplastic.



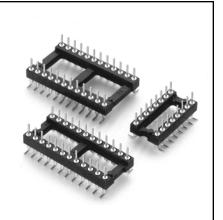
Total number of pins	B 00	77	C T	Quantity per tube	Ordering Information				
Ľ	Α	В	С						
16	0.572	0.3	0.39	35	162-	-XX-316-00-	180000	RoHS	
28	0.992	0.4	0.49	20	162-	-XX-428-00-	180000	2002/95/E	EC
30	1.062	0.4	0.49	18	162-	-XX-430-00-	180000		
48	1.692	0.4	0.49	12	162-	-XX-448-00-	180000	For RoHS com select ♦ plati	
20	0.712	0.6	0.69	28		-XX-620-00-			
28	0.992	0.6	0.69	20	162-XX-628-00-180000				
40	1.412	0.6	0.69	14	162-XX-640-00-180000				
42	1.482	0.6	0.69	13	162-XX-642-00-180000				
48	1.692	0.6	0.69	12	162-XX-648-00-180000				
52	1.832	0.6	0.69	11	162-XX-652-00-180000				
56	1.972	0.6	0.69	10	162-	-XX-656-00-	180000		
64	2.252	0.6	0.69	9	162-	-XX-664-00-	180000		
68	2.392	0.6	0.69	8	162·	-XX-668-00-	180000		
64	2.252	0.75	0.84	8	162-	-XX-764-00-	180000		
					For Electrical, Mechanical & Environmental Data, See pg. 4		(XX=Plating See Be	
					SINGLI If desired, we wi		IP HEADER		
21	1.482		.104	-	862-XX-121-00-180000				
	•				SPECIFY PLATING CODE XX=	10♦	90	40♦	
					Pin Plating ————	10μ" Au	200μ" Sn/Pb	200μ" Sn	



DUAL-IN-LINE HEADERS Gull Wing Shrink DIP Headers and Strips Surface Mount Solder Tail



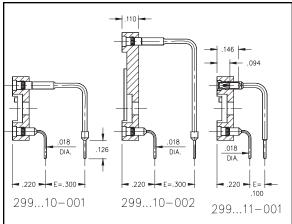
- Surface mount Gull Wing DIP sockets and strips for devices featuring .070" lead spacing.
- Gull wing terminals for max. strength and easy in-circuit test.
- Series 162 and Series 862 use MM #6218 pins. See page 175 for details.
- Insulators are high temperature thermoplastic.



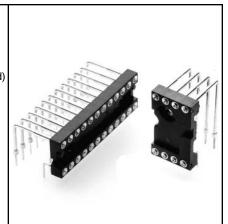
Total number of pins	A — A — C — C — .070 (TYP)			Quantity per tube	Ordering Information				
T	Α	В	C						
16	0.572	0.3	0.39	35	162-XX-316-30-180000 RoHS				
28	0.992	0.4	0.49	20	162-XX-428-30-180000				
30	1.062	0.4	0.49	18	162-XX-430-30-180000				
48	1.692	0.4	0.49	12	162-XX-448-30-180000 For RoHS compliance select ♦ plating code.				
20	0.712	0.6	0.69	28	162-XX-620-30-180000				
28	0.992	0.6	0.69	20	162-XX-628-30-180000				
40	1.412	0.6	0.69	14	162-XX-640-30-180000				
42	1.482	0.6	0.69	13	162-XX-642-30-180000				
48	1.692	0.6	0.69	12	162-XX-648-30-180000				
52	1.832	0.6	0.69	11	162-XX-652-30-180000				
56	1.972	0.6	0.69	10	162-XX-656-30-180000				
64	2.252	0.6	0.69	9	162-XX-664-30-180000				
68	2.392	0.6	0.69	8	162-XX-668-30-180000				
64	2.252	0.75	0.84	8	162-XX-764-30-180000				
					For Electrical, Mechanical & Environmental Data, See pg. 4 XX=Plating Code See Below				
_	(<u>0,0,0,0,0</u>	32 FOR 21		₩ 04 ₩	SINGLE ROW STRIP SMT HEADER If desired, we will supply any length up to 21 pins.				
21	1.482		.104	-	862-XX-121-30-180000				
Coplan	arity .005". F	or Pin Co	unts >10 pc	ositions	SPECIFY PLATING CODE XX= 10♦ 90 40♦				
	Technical S		r		Pin Plating — 10μ" Au 200μ" Sn/Pb 200μ" Sn				



DUAL-IN-LINE SOCKETS Right Angle Mount Closed Frame



- For components to be mounted perpendicularly to the PCB, such as LED displays.
- Horizontal mount solder tails are available with either .300" (standard) or .100" row spacing.
- Series 299 use MM #1103/0903, #1103/1610 or #1103/0904 pins. See pages 137 & 138 for details.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Insulators are high temperature thermoplastic.



Total number of pins	B 0	77	0 0 C C (TYP)	Quantity per tube
2	Α	В	ပ	
6	0.3	0.3	0.4	
8	0.4	0.3	0.4	
10	0.5	0.3	0.4	
12	0.6	0.3	0.4	33

Ordering Information

Total	.100 (TYP)		Ou pe			
6	Α	В	С		E=.300	E=.100
6	0.3	0.3	0.4		299-XX-306-10-001000	299-XX-306-11-001000
8	0.4	0.3	0.4		299-XX-308-10-001000	299-XX-308-11-001000
10	0.5	0.3	0.4		299-XX-310-10-001000	299-XX-310-11-001000
12	0.6	0.3	0.4	33	299-XX-312-10-001000	299-XX-312-11-001000
14	0.7	0.3	0.4	29	299-XX-314-10-001000	299-XX-314-11-001000
16	0.8	0.3	0.4	25	299-XX-316-10-001000	299-XX-316-11-001000
18	0.9	0.3	0.4	22	299-XX-318-10-001000	299-XX-318-11-001000
20	1.0	0.3	0.4	20	299-XX-320-10-001000	299-XX-320-11-001000
24	1.2	0.3	0.4	16	299-XX-324-10-001000	299-XX-324-11-001000
8	0.4	0.6	0.7	50	299-XX-608-10-002000	
10	0.5	0.6	0.7	40	299-XX-610-10-002000	
12	0.6	0.6	0.7	34	299-XX-612-10-002000	
14	0.7	0.6	0.7	28	299-XX-614-10-002000	
16	0.8	0.6	0.7	25	299-XX-616-10-002000	
18	0.9	0.6	0.7	22	299-XX-618-10-002000	
20	1.0	0.6	0.7	20	299-XX-620-10-002000	
22	1.1	0.6	0.7	18	299-XX-622-10-002000	
24	1.2	0.6	0.7	16	299-XX-624-10-002000	
26	1.3	0.6	0.7	15	299-XX-626-10-002000	
28	1.4	0.6	0.7	14	299-XX-628-10-002000	
30	1.5	0.6	0.7	13	299-XX-630-10-002000	
32	1.6	0.6	0.7	12	299-XX-632-10-002000	
36	1.8	0.6	0.7	11	299-XX-636-10-002000	
40	2.0	0.6	0.7	10	299-XX-640-10-002000	



XX=Plating Code See Below

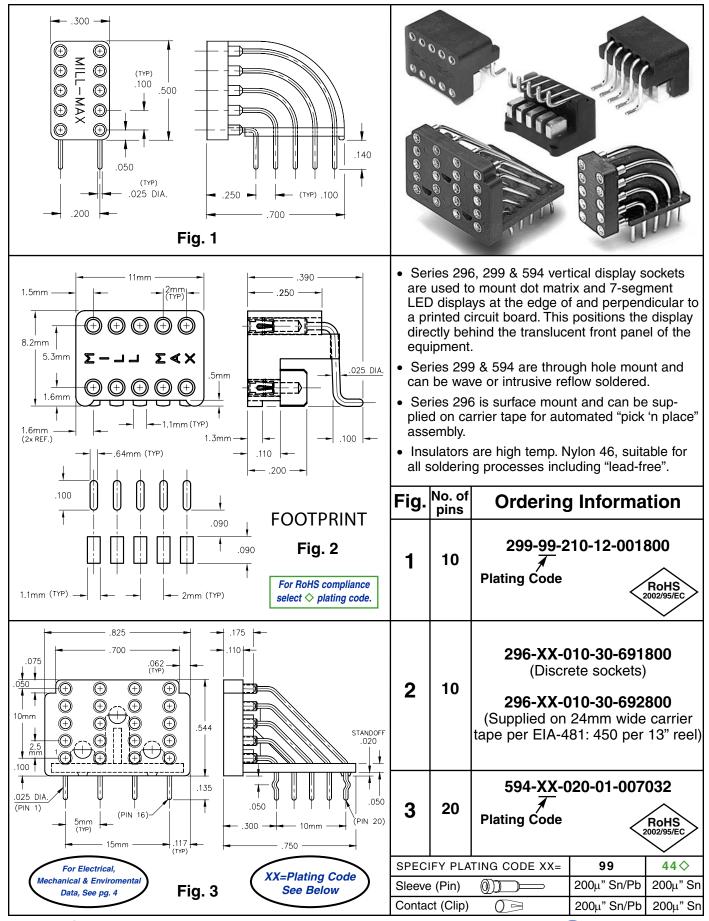


SPECIFY PLATING CODE XX=	93		43♦	
Sleeve (Pin)	200μ" Sn/Pb		200μ"Sn	
Contact (Clip)	30μ" Au		30μ" Au	

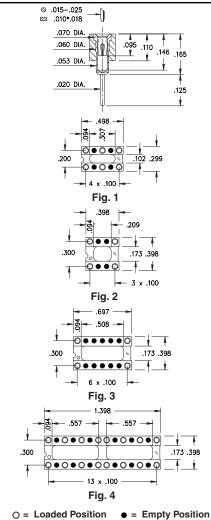


DUAL-IN-LINE SOCKETS Vertical Display Sockets

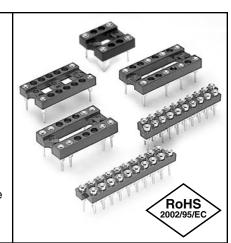
(See also page 61 for Right Angle DIP Sockets)







- Relay sockets accept devices with I/O pins on .100" grid.
- Additional Relay DIP socket patterns are available on Page 64.
- Zig-Zag strip sockets are suitable for IC's and memory chips with staggered double row patterns.
- Series 110 and 410 use MM #1001 receptacles. See page 136 for details.
- Receptacles use Hi-Rel, 4 finger #30
 BeCu contact rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.

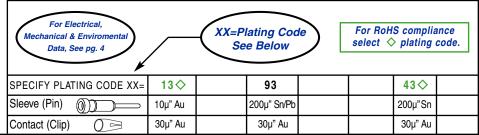


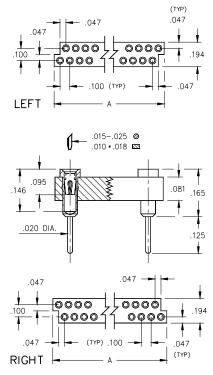
Selectively Loaded Sockets For Dual-In-Line Relays

	No. of pins	Ordering Information			
Fig. 1	6	110-XX-210-10-001000			
Fig. 2	4	110-XX-308-10-001000			
Fig. 3	4	110-XX-314-10-001000			
Fig. 4	16	110-XX-328-10-001000			

Staggered (Zig-Zag) Strip Sockets

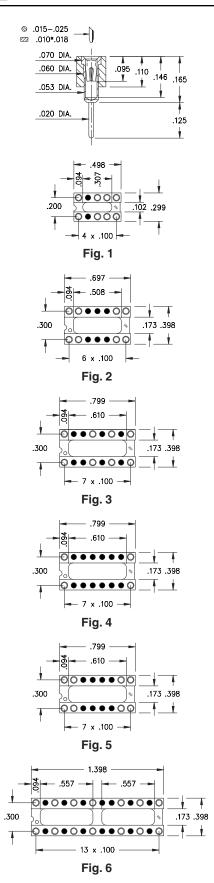
Dim 'A'	No. of pins	Insulator Body	Ordering Information
0.747	14	Left, Stackable	410-93-214-10-001000
0.747	14	Right, Stackable	410-93-214-10-002000
0.847	16	Left, Stackable	410-93-216-10-001000
0.847	16	Right, Stackable	410-93-216-10-002000
1.047	20	Left, Stackable	410-93-220-10-001000
1.047	20	Right, Stackable	410-93-220-10-002000
1.247	24	Left, Stackable	410-93-224-10-001000
1.247	24	Right, Stackable	410-93-224-10-002000
1.447	28	Left, Stackable	410-93-228-10-001000
1.447	28	Right, Stackable	410-93-228-10-002000



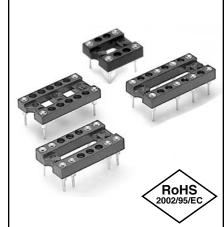




DUAL-IN-LINE SOCKETS Selectively Loaded Relay DIP Sockets Solder Tail



- Relay sockets accept devices with I/O pins on .100" grid.
- Additional Relay DIP socket patterns are available on Page 63.
- Series 110 use MM #1001 receptacles.
 See page 136 for details.
- Receptacles use Hi-Rel, 4 finger #30
 BeCu contact rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



	Ordering Info	ormation
	Series 110002	8 Position Relay Socket
Fig. 1	110-XX	-210-10-002000
	Series 110002	8 Position Relay Socket
Fig. 2	110-XX	-314-10-002000
	Series 110003	8 Position Relay Socket
Fig. 3	110-XX	-316-10-003000
	Series 110004	4 Position Relay Socket
Fig. 4	110-XX	-316-10-004000
	Series 110005	8 Position Relay Socket
Fig. 5	110-XX	-316-10-005000
	Series 110002	14 Position Relay Socket
Fig. 6	110-XX	-328-10-002000

30µ" Au

○ = Loaded Position • = Empty Position

Contact (Clip)

30µ" Au



SIP SOCKETS, HEADERS AND CARRIERS QUICK SELECTOR CHART

USE THIS CONVENIENT CHART TO SELECT THE RIGHT SIP INTERCONNECT FOR YOUR APPLICATION

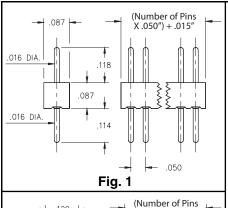
- 1) Determine the style of pin needed to meet your requirement.
- 2) Select the appropriate insulator frame, pitch and grid spacing.
- 3) Turn to indicated page for detail and ordering information.
- 4) For custom assembly in a selected insulator, contact our applications engineers.

SINGLE & DOUBLE ROW SIP SOCKETS, HEADERS AND CARRIERS

		.015	5"0	25" [Diame	eter F	Pins		.0:					.037- .043"	143" Turret,			Carriers					
Select Pin	Vertical Socket	Right Angle Socket	Vertical Pin	Right Angle Pin	Surface Mount Pin	Surface Mount Socket	1-4 Level Wrapost Socket	Pluggable Wrapost Socket	.020/.030 Elevated Solder Tail Pin	Surface Mount Socket & Headers	Solderless Press-fit Socket	Solderless Press-fit Pin	Vertical Socket	OFP Pass Through Socket	Right Angle Socket	Vertical Pin	Right Angle Pin	Vertical Socket signary via	Solder Tail		Solder Tail	Low Profile	Ultra Low Profile
.050"Grid Single Row	66	67	66	67	68 69	68 69																	
.050"Grid Double Row	66	67	66	67	68	68																	
2mm Grid Single Row	70	72	70	72	71	71																	
2mm Grid Double Row	70	72	70	72	71	71																	
.200" Grid Single Row													88		88		88						
.100" Grid Single Row	73 79 89 91 97	73	73 79 102 103 106	73	76 77 78	69 76 77 78	93	95	105	77 85	83	83	80 81	87	81	80 81	81	86	75 108	110	99	100	101
.100" Grid Double Row	74 79 90 92 98	74	74 79 102 104 107	74	76 78	76 78	94	96		85	84	84	80 82	87	82	80 82	82	86	75 109	111	99	100	101

INTERCONNECTS .050" Grid Headers and Sockets Single and Double Row

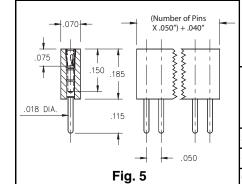
Series 850, 851 852, 853



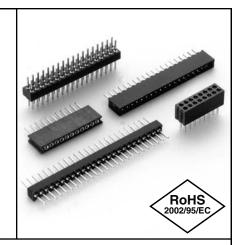
- (Number of Pins X .050"/2) + .015" .120 .016 DIA .075 .083 .016 DIA. .118 Fig. 2
- (Number of Pins X .050") + .015" .120 .075 .018 DIA.

Fig. 3

(Number of Pins X .050"/2) + .015" .120 .075 .018 DIA Fig. 4



- Series 850 single and double row interconnects have .050" pin spacing & permit board stacking as low as .248".
- Pin headers have .016" dia. pins (MM #4006-0). See page 175 for details.
- MM #0467 and MM #4890 receptacles use Hi-Rel, 3-finger BeCu #11 contacts rated at 3 amps. (#11 contact accepts pin diameters from .015"-.020"). See pages 129 and 131 for details.
- Insulators are high temp. thermoplastic, suitable for all soldering operations.



Ordering Information

	Single Row	.087" Profile Pin Header
Fig. 1	850-	XX-010-001000
	Specify # of pire	ns

Double Row .075" Profile Pin Header 852-XX-_ _ _-10-001000 Fig. 2 Specify # of pins **→** 002-100



XX=Plating Code See Below

For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=	10♦	90	40♦
Pin Plating —————	10μ" Au	200μ" Sn/Pb	200μ" Sn

Single Row Fig. 3

.161" Profile Socket 851-XX-0 -10-001000

Specify # of pins **→** 01-50

Double Row Fig. 4

Fig. 5

.161" Profile Socket 853-XX-_ _ _-10-001000

Specify # of pins **→** 002-100

Single Row

.185" Profile Socket

Specify # of pins

851-XX-0_ _-10-002000

→ 01-77

For Electrical. XX=Plating Code Mechanical & Enviromental See Below Data, See pg. 4

For RoHS compliance select oplating code.

SPECIFY PLATING CODE XX=		93	99	43♦	
Sleeve (Pin)		200µ" Sn/Pb	200µ"Sn/Pb	200μ"Sn	
Contact (Clip)		30µ" Au	200µ"Sn/Pb	30µ" Au	

INTERCONNECTS .050" Grid Right Angle Headers and Sockets Single and Double Row

Series 850, 851 852, 853

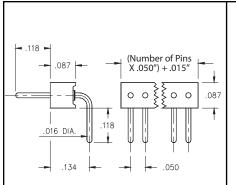


Fig. 1

- · Series 850 and 851 interconnects are available in single and double row form.
- 850 & 852 series headers use MM #4006-1 and #4006-2 pins. See page 175 details.
- 851 & 853 series sockets use MM #4890-1 and #4890-2 receptacles, that accept pin diameters from .015"-.021" See page 131 for details.
- · Insulators are high temp. thermoplastic.

Double Row



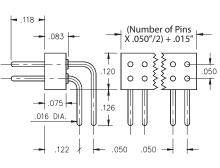


Fig. 2

Ordering Information

	Single Row		Right Ar	ngle Pin Header
Fig. 1		850-XX-0	20-00	1000
	Specify # 6	of pins	_	01-50

852-XX- -20-001000 Fig. 2 Specify # of pins

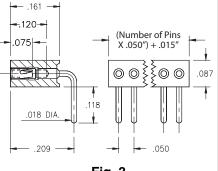
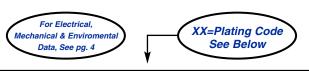


Fig. 3



For RoHS compliance select \diamondsuit plating code.

002-100

Right Angle Pin Header

	Single Ro	W	Right	Angle So	cket
Pin Plating —□		10μ" Au	200μ" Sn/Pb	200μ" Sn	
SPECIFY PLATING	10♦	90	40♦		

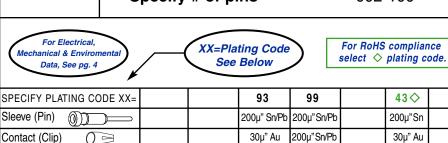
Fig. 3

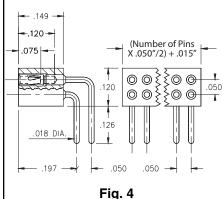
Fig. 4

851-XX-0_ _-20-001000

→ 01-50 Specify # of pins

Double Row Right Angle Socket 853-XX- -20-001000 Specify # of pins 002-100

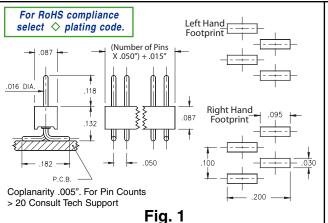




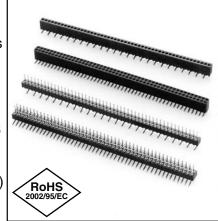
www.mill-max.com

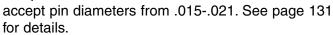
INTERCONNECTS .050" Grid Surface Mount Headers and Sockets Single and Double Row

Footprint



- Single row interconnects having an even number of pins are now available with a left or right hand footprint.
- Headers (850 & 852) use MM# 4006 pins. See page 175 for details.
- Sockets (851 & 853) use MM# 4890-0 receptacles and





• Coplanarity .005" (Single Row max 20 pins; Double Row max 40 pins). For higher pin counts contact techical support.

Ordering Information

Insulators are high temp. thermoplastic.

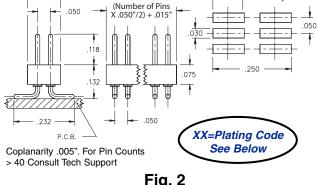
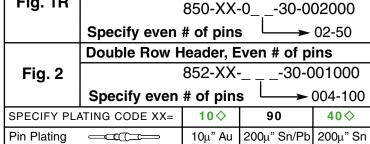


Fig. 2

	Ordering information						
	Single Row Header, Left Hand Footprint Odd or Even # of pins						
Fig. 1L	850-XX-0_ __ -30-001000						
	Specify # of pins 01-50						
]	Single Row Header, Right Hand Footprint Even # of pins						
Fig. 1R	850-XX-0_ _, 30-002000						
	Specify even # of pins 02-50						
	Double Row Header, Even # of pins						
I	·						

(Number of Pins X .050") + .015" 120	Right Hand Footprint060 Footprint030
_, _	

Fig. 3



.050120050050050050050050050050050
Coplanarity .005". For Pin Counts > 40 Consult Tech Support Fig. 4

Single Row Socket, Left Hand Footprint Odd or Even # of pins ★ 44 Plating Non-Standard Fig. 3L 851-XX-0_ _ -30-001000 Specify # of pins → 01-50 Single Row Socket, Right Hand Footprint Even # of pins Fig. 3R 851-XX-0 -30-002000

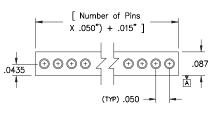
		0017070	_,_ 00 002000
	Specify even	# of pins	▶ 02-50
	Double Row	Socket, Eve	en # of pins
. 4	★ 44 Plating Non-Standard	853-XX	30-001000
	Specify ever	n # of pins	→ 004-100
	Specify ever	i # oi pilis	

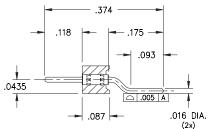
SPECIFY PLA	TING CODE XX=	93	99	43♦	44♦
Sleeve (Pin)		200µ" Sn/Pb	200µ"Sn/Pb	200μ"Sn	200μ"Sn
Contact (Clip)		30μ" Au	200µ"Sn/Pb	30µ" Au	200µ"Sn

Fig



INTERCONNECTS .050" Grid Horizontal SMT Z-Bend Headers and Sockets **Single Row**

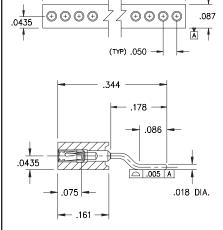




Coplanarity .005". For Pin Counts >20 positions consult Technical Support.

Fig. 1

[Number of Pins X .050") + .015"]



Coplanarity .005". For Pin Counts >20 positions consult Technical Support.

Fig. 2

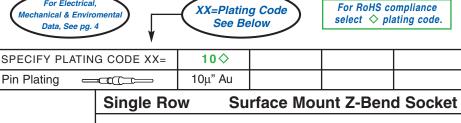
- Series 850 horizontal Surface Mount Z-Bend headers are availble with .016" dia. solder tails and pluggable pins (MM #4006-1). See page 175 for details.
- Series 851 horizontal Surface Mount Z-Bend sockets use MM #4890-1 receptacles that accept pin diameters from .015"-.020". See pages 131 for details.
- Insulators are high temp. thermoplastic.

For Electrical,



Ordering Information

	Single Row	Surrace	wount	Z-Bena	Header
Fig. 1		850-10-0_	40-00	1000	
	Specify #	of pins		02-20	

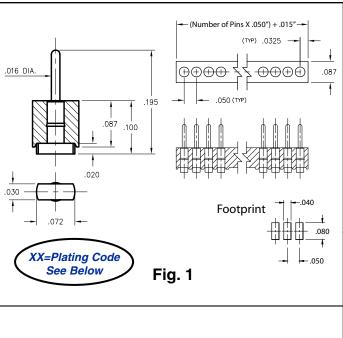


	3
Fig. 2	851-13-040-001000
	Specify # of pins → 02-20

For Electrical, Mechanical & Environmental Data, See pg. 4	(ting Code Below	For RoHS select ◇	
SPECIFY PLATING CODE XX=	13			
Sleeve (Pin)	10µ"Au			
Contact (Clip)	30µ" Au			
			3 = 4 0	



INTERCONNECTS .050" & .100" Grid Surface Mount Headers and Sockets Single Row



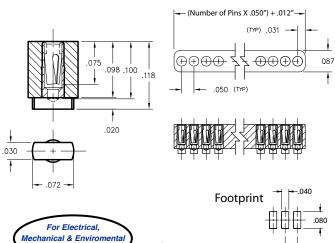
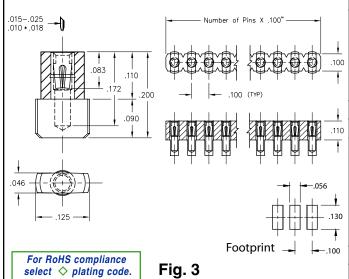
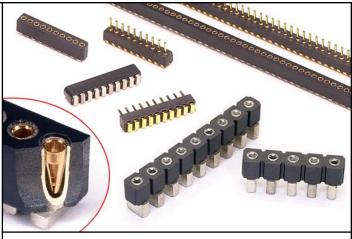


Fig. 2





- Series 340 and 399 interconnects are single row headers and sockets having unique surface mount "block" terminals.
- "Block" termination makes the interconnects "self-standing".
 This also minimizes profile and reduces the footprint compared with traditional "gull wing" designs.
- Series 399 is a matched pair of .050" pitch sockets and headers with a mated height of only .218".
- Series 340 is a .100" pitch SIP socket using Mill-Max #30 contact (Data on page 218). The profile is only .200".
- Insulators are high temp. thermoplastic, suitable for all soldering processes.

RoHS 2002/95/EC

Ordering	Information

	Single Row Header, .050" Grid
Fig. 1	399-10-0 <u>XX</u> -00-310000

Plating Code Specify # of pins 02-50

PLATING CODE 10

Pin Plating 10μ" Au

Single Row Socket, .050" Grid

Fig. 2 399-XX-0XX-21-300000

 Plating Code
 Specify # of pins
 02-50

 SPECIFY PLATING CODE XX=
 91
 41 ◊

 Sleeve (Pin)
 200μ" Sn/Pb
 200μ"Sn

 Contact (Clip)
 10μ" Au
 10μ" Au

Single Row Socket, .100" Grid

Fig. 3 340-XX-1XX-30-780100

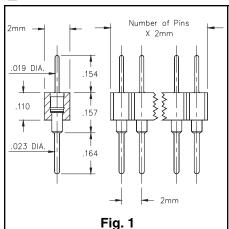
Plating Code Specify # of pins 02-64

SPECIFY PLAT	NG CODE XX=	99	44♦
Sleeve (Pin)		200μ" Sn/Pb	200μ"Sn
Contact (Clip)	0	200μ" Sn/Pb	200μ"Sn

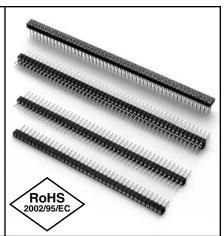
Data, See pg. 4

INTERCONNECTS 2mm Grid Headers and Sockets Single and Double Row

Series 830, 831 832, 833



- Series 830 single and double row interconnects have 2mm pin spacing and permit board stacking as low as .322".
- Pin headers (830 & 832 series) use MM #5012 pins. See page 175 for details.
- Sockets (831 & 833 series) use MM #1802 receptacles and accept pin diameters from .015"-.025". See page 140 for details.
- · Insulators are high temp. thermoplastic, suitable for all soldering operations.



Number of Pins

Fig. 2

Ordering Information

830-XX-0_ _-10-001000 Fig. 1 Specify # of pins 01-50

Double Row Pin Header

Single Row Pin Header

832-XX-_ _ _-10-001000 Fig. 2 → 002-100 Specify # of pins

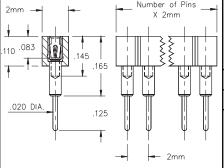


Fig. 3





For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=	10♦	90	40 ♦	
Pin Plating ————	10μ" Au	200μ" Sn/Pb	200μ" Sn	

Fig. 3

Single Row Socket 831-XX-0_ _-10-001000

Specify # of pins 01-50

200µ" Sn/Pb

30µ" Au

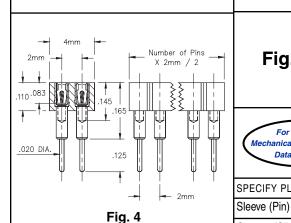


Fig. 4

833-XX-_ _ _-10-001000

Double Row Socket

Specify # of pins

For Electrical, For RoHS compliance XX=Plating Code Mechanical & Enviromenta select \diamondsuit plating code. See Below Data, See pg. 4 SPECIFY PLATING CODE XX= 93

70

43 ♦

200µ"Sn

002-100

www.mill-max.com



INTERCONNECTS 2mm Grid Surface Mount Headers And Sockets Single and Double Row

Series 830, 831 832, 833

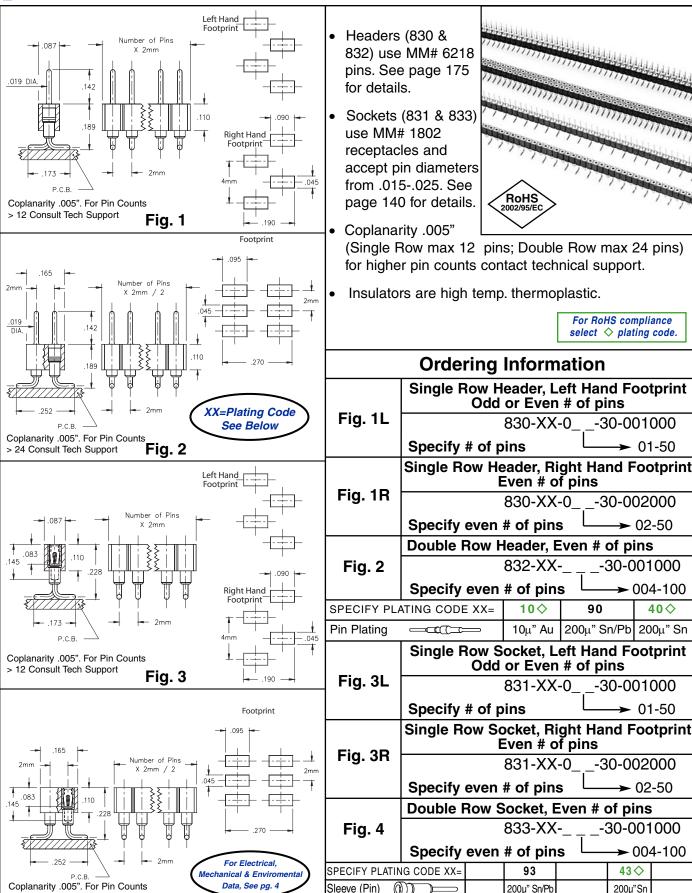


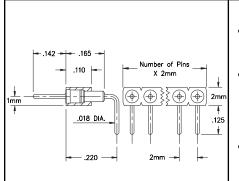
Fig. 4

> 24 Consult Tech Support

Contact (Clip)

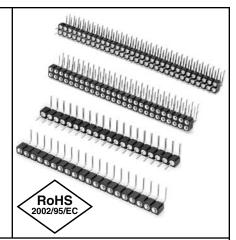
INTERCONNECTS 2mm Grid Right Angle Headers and Sockets Single and Double Row

Series 830, 831, 832, 833



- Series 830 & 832 use MM #3790 & MM #3796 pins. See page 176 for details.
- Series 831 & 833 use MM #1805 and MM #3805 receptacles and accept pin diameters from .015"-.025". See page 140 for details.
- Receptacles use Hi-Rel, 6 finger BeCu #43 contact rated at 3 amps. See page 220 for details.
- Insulators are high temp. thermoplastic.

830...001



- .142 -- .165 --₹**₹⊕** ⊕ 2mm ♠ } .018 DIA .220

Fig. 1

Ordering Information Single Row Right Angle Header

830-10-0_ _-20-001000 Fig. 1 **→** 01-50 Specify # of pins

Fig. 2

Fig. 2

Double Row Right Angle Header 832...001 832-10- -20-001000

Specify # of pins 002-100

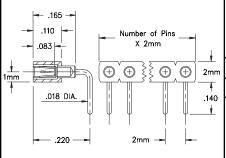


Fig. 3

For Electrical. Mechanical & Enviromenta Data, See pg. 4

For RoHS compliance select \diamondsuit plating code.

PLATING CODE =	10♦	
Pin Plating —		10μ" Au

833...001

Single Row Right Angle Socket 831...001

Fig. 3

831-43-0 _ _-20-001000

Specify # of pins

01-50 **Double Row Right Angle Socket**

Fig. 4

833-43-_ _ _-20-001000

Specify # of pins 002-100

(H) (H) \oplus ⊕ \oplus \oplus 1mm .018 DIA .140 - .220

Fig. 4

For Electrical, Mechanical & Enviromenta Data, See pg. 4

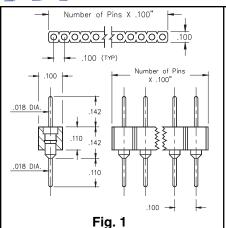
For RoHS compliance select \diamondsuit plating code.

PLATING CODE = 43 ♦ Sleeve (Pin) 200µ"Sn 30µ" Au Contact (Clip)



INTERCONNECTS .100" Grid (.018" dia.) Pins, Straight and Right Angle Single Row

Series 301, 310, 350, 399



- Series 3XX are available with straight and right angle solder tails.
- Series 350 & 399...009 use MM #3404 and #5011 pins. See pages 179 & 181 for details.
- Series 301, 310 & 399...003 use MM #0156, #1001 & #1103 receptacles. See pages 136 & 137 for details.
- Receptacles use Hi-Rel, 4 finger #30
 BeCu contact rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



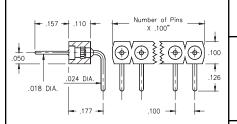


Fig. 2

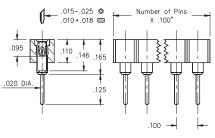
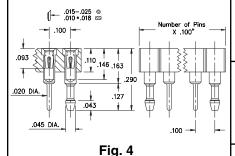
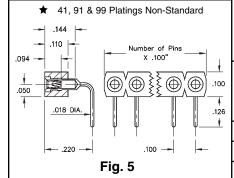


Fig. 3



. .9. .



Ordering Information

	Series 350006	Straight Pin Header
Fig. 1	350-XX-1_	00-006000
	Specify # of pins	▶ 01-64

Fig. 2 399-XX-1_ _-10-009000

Spring 310

Series 399...009

Right Angle Pin Header

Specify # of pins 02-64



XX=Plating Code See Below For RoHS compliance select ♦ plating code.

Straight Socket

SPECIFY PLATING CODE XX=	10♦	90	40♦	Γ
Pin Plating ————	10μ" Au	200μ" Sn/Pb	200μ" Sn	

	Series 310001	Straight Socket
Fig. 3	310-XX-141	1-001000
J	Specify # of pins	→ 01-64
	Series 301056 Socket	w/ Retention Pegs
Fig. 4	301-XX-141	1-560000
	Specify # of pins	→ 01-64
	Series 399003	Right Angle Socket
Fig. 5	399-XX-110	0-003000
	Specify # of pins	→ 01-64

For Electrical,
Mechanical & Environmental
Data, See pg. 4

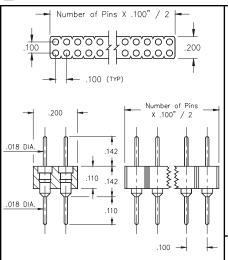
XX=Plating Code
See Below

For RoHS compliance select \diamondsuit plating code.

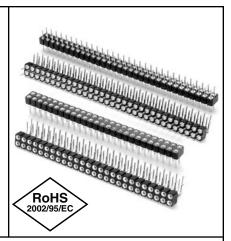
SPECIFY PLATING CODE XX: 13 ♦ 41 ♦ 43 ♦ 44 🔷 Sleeve (Pin) 200µ" Sn/Pb 200µ" Sn/Pb 200µ"Sn/Pb 10µ" Au 200µ"Sn 200µ"Sn 200µ"Sn 30µ" Au 10µ" Au 200µ"Sn/Pb Contact (Clip) 30µ" Au 10µ" Au 30μ" Au | 200μ"Sn

INTERCONNECTS

Series 410, 450, 499 .100" Grid (.018" dia.) Pins, Straight and Right Angle **Double Row**



- Series 4XX are available with straight and right angle solder tails.
- Series 450 & 499...009 use MM #3404 and #5011/5113 pins. See pages 179 & 181 for details.
- Series 410 & 499...003 use MM #1001 and #1103/1602 receptacles. See pages 136, 137 & 138 for details.
- Receptacles use Hi-Rel, 4 finger #30 BeCu contact rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



Ordering Information Fig. 1

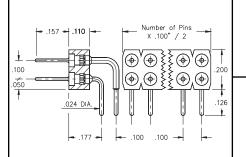
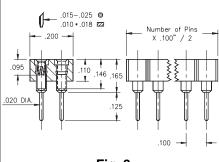
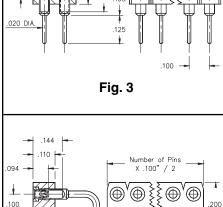


Fig. 2

	Series 450006	Straight Pin Header
Fig. 1	450-XX-2	00-006000
	Specify # of pins	→ 02-64

499-10-2 _ _-10-009000 Fig. 2 Specify # of pins 02-64

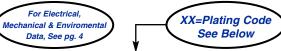




 \oplus

.100

.126



Series 499...003

Series 499...009

90

200μ" Sn/Pb

For RoHS compliance select \diamondsuit plating code.

40 ♦

200μ" Sn

Right Angle Socket

Right Angle Pin Header

	Series 410001	Straight Socket	
Fig. 3	410-XX-241-001000		
	Specify # of pins	→ 02-64	

10 ♦

10μ" Au

Fig. 4

For Electrical,

Pin Plating

SPECIFY PLATING CODE XX=

499-XX-2 -10-003000

Specify # of pins 02-64

For RoHS compliance XX=Plating Code Mechanical & Enviromenta select \diamondsuit plating code. See Below Data, See pg. 4 SPECIFY PLATING CODE XX= 13 ♦ 43 ♦ Sleeve (Pin) 10µ" Au 200µ"Sn 30µ" Au Contact (Clip) 30µ" Au

.100

Fig. 4

.050

.018 DIA

- .220

INTERCONNECTS .100" Grid Solder Cup Headers and Sockets Single and Double Row

Series 329, 380, 429, 480

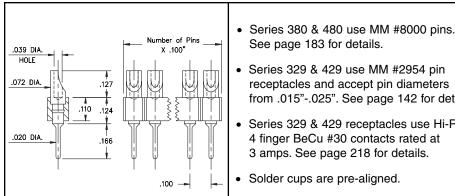
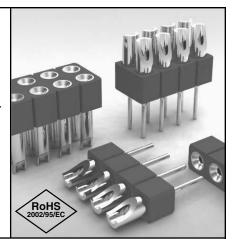


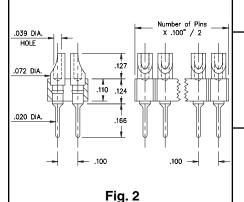
Fig. 1

- See page 183 for details.
- Series 329 & 429 use MM #2954 pin receptacles and accept pin diameters from .015"-.025". See page 142 for details.
- Series 329 & 429 receptacles use Hi-Rel, 4 finger BeCu #30 contacts rated at 3 amps. See page 218 for details.
- Solder cups are pre-aligned.
- · Insulators are high temp. thermoplastic.

Series 380...001

Series 480...001





Ordering Information

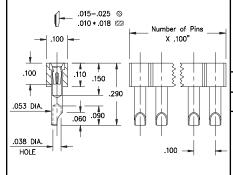
Solder Cup / Solder Tail 380-XX-1 -00-001000 **→** 01-64 Specify # of pins

Fig. 2

Fig. 1

480-10-2 -00-001000

Specify # of pins **→** 02-64





XX=Plating Code See Below

For RoHS compliance select \diamondsuit plating code.

Solder Cup Sockets

Solder Cup / Solder Tail

SPECIFY PLATING CODE XX= 10♦ 90 ♦ 40♦ 10μ" Au 200μ" Sn/Pb 200μ" Sn Pin Plating

.015-.025 © .010 * .018 ZZ .110 .150 .100 .290 .060 .090 .038 DIA.

Fig. 4

Fig. 3

Fig. 3

Fig. 4

329-43-1 -41-540000

Specify # of pins → 01-64

Series 429...540

Series 329...540

Solder Cup Sockets

Specify # of pins

429-43-2 -41-540000

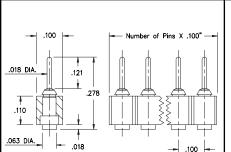
→ 02-64

For Electrical, Mechanical & Enviromenta Data, See pg. 4

For RoHS compliance select \diamondsuit plating code.

PLATING CODE = Sleeve (Pin)

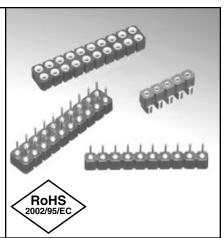
INTERCONNECTS .100" Grid Surface Mount Headers and Sockets Single and Double Row



Coplanarity .005". For Pin Counts >10 positions consult Technical Support.

Fig. 1

- Series 329 and 429 pin interconnects offer vertical Surface Mount MM #2956-X solder tails. See page 185 for details.
- Series 340 Surface mount sockets use MM #4078 pins. Series 414 sockets use MM #1434 pins. See pages 133 and 138
- Series 340 and 414 receptacles use Hi-Rel, 4-finger BeCu #30 contacts rated at 3 amps. Receptacles accept .015"-.025" diameter pins. See page 218 for details.
- Insulators are high temp. thermoplastic.



umber of Pins X .100" / 2 .100 .018 DIA .038 DIA .100

Coplanarity .005". For Pin Counts >10 positions consult Technical Support.

Fig. 2

Surface Mount Pin Header Series 329...560

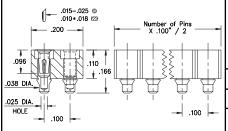
Series 429...560

329-10-1_ _-00-560000 Fig. 1 Specify # of pins 02-64

> **Surface Mount Pin Header** 429-10-2 _ _-00-560000

Ordering Information

Specify # of pins 04-72



Mechanical & Enviromental Data, See pg. 4

For Electrical,

Fig. 2

For RoHS compliance select \diamondsuit plating code.

PLATING CODE = 10♦ Pin Plating 10 μ" Au Series 414...117 **Surface Mount Socket**

Coplanarity .005". For Pin Counts >10 positions consult Technical Support.

Fig. 3

Fig. 3

414-43-2 _ _-41-117000

Specify # of pins **→** 04-72

Fig. 4

Series 340...780

Surface Mount Socket 340-43-1 _ _-30-780100

Specify # of pins

For Electrical, Mechanical & Enviromenta Data, See pg. 4

For RoHS compliance select \diamondsuit plating code.

PLATING CODE = 43♦ Sleeve (Pin) 200µ"Sn 30 µ" Au Contact (Clip)

consult Technical Support.

Coplanarity .005". For Pin Counts >10 positions

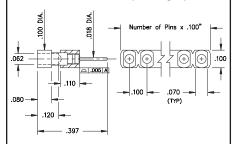
Fig. 4

INTERCONNECTS

Series 310, 351, ets 800, 801

.100" Grid Horizontal Surface Mount Headers & Z-Bend Sockets Single Row

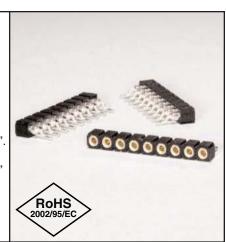
Mates w/ Series 310...023 Surface Mount Z-Bend Socket (See Fig. 3)



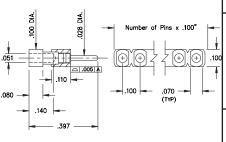
Coplanarity .005". For Pin Counts >10 positions consult Technical Support.

Fig. 1

- Series 351 and 800 horizontal Surface Mount headers are availble with .018" dia. pluggable pins (MM #5102) and .028" dia. pluggable pins (MM #1502). See page 185 for details.
- Series 310 horizontal Surface Mount Z-Bend sockets use MM #1023 receptacles that accept pin diameters from .015"-.025". Series 801 use MM #1303 receptacles that accept pin diameters from .025"-.037" and .025" square leads. See pages 142 and 150 for details.
- Insulators are high temp. thermoplastic.



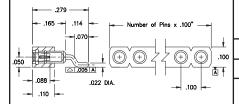
Mates w/ Series 801...002 Surface Mount Z-Bend Socket (See Fig. 4)



Coplanarity .005". For Pin Counts >10 positions consult Technical Support.

Fig. 2

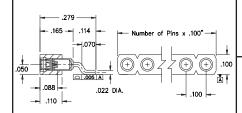
Mates w/ Series 351...002 Surface Mount Header (See Fig. 1)



Coplanarity .005". For Pin Counts >10 positions consult Technical Support.

Fig. 3

Mates w/ Series 800...002 Surface Mount Header (See Fig. 2)



Coplanarity .005". For Pin Counts >10 positions consult Technical Support.

Fig. 4

Ordering Information

	Series 351002	.018 Dia. Surface Mount Heade
Fig. 1	351	-10-140-002000

Specify # of pins 02-10

Series 800...002 .028 Dia. Surface Mount Header

Fig. 2 800-10-0 _ _-40-002000 Specify # of pins 02-10

For Electrical, Mechanical & Enviromental Data, See pg. 4

Fig. 3

For RoHS compliance select \diamondsuit plating code.

0 1 010	000	040 D	014T T D	
Pin Plating ————	10 μ" Au			
PLATING CODE =	10♦			

Series 310...023 .018 Dia. SMT Z-Bend Socket 310-43-1 -40-023000

Specify # of pins 02-10

Series 801...002 .028 Dia. SMT Z-Bend Socket

Fig. 4 801-XX-0 _ _-40-002000 Specify # of pins 02-1

For Electrical,
Mechanical & Environmental
Data, See pg. 4

SPECIFY PLATING CODE XX=

Sleeve (Pin)

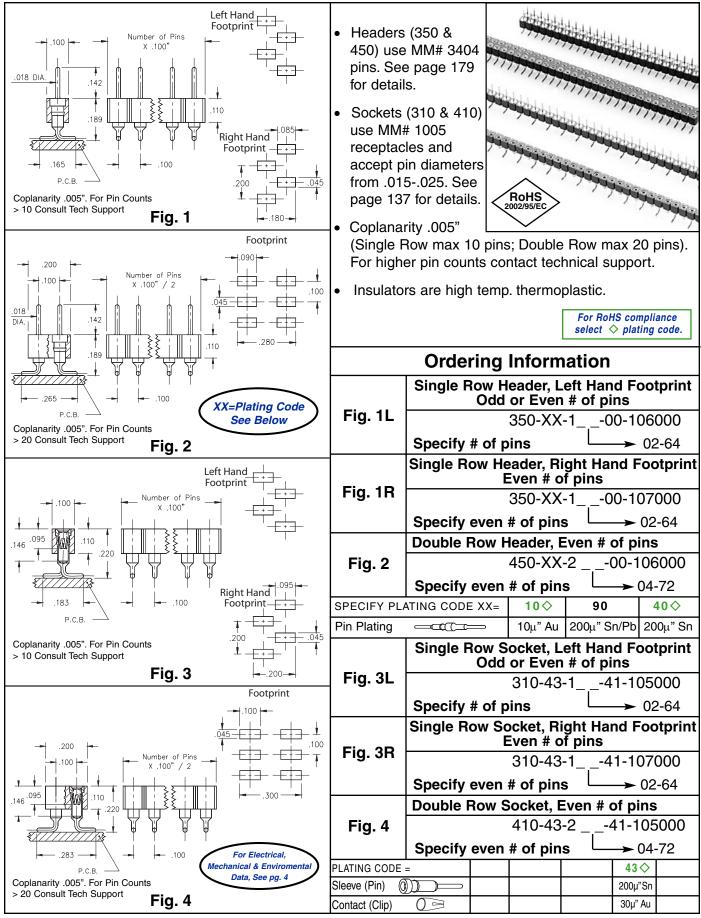
Sleeve (Pin)

Solution Single State of the American State of the American Single State of the American State of the American Single State of the American State of the American State of the American Single State of the American State of the American Single State of the American State of the Amer



INTERCONNECTS .100" Grid (.018" dia.) Pins SMT Gull Wing Headers & Sockets Single and Double Row

Series 310, 350 410, 450





INTERCONNECTS .100" Grid (.025" dia.) Low Profile Headers & Versatile Sockets **Single and Double Row**

Series 350, 450 801,803

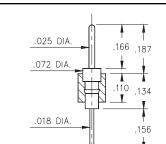


Fig. 1

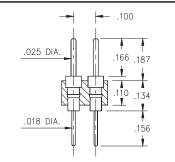


Fig. 2

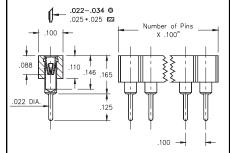


Fig. 3

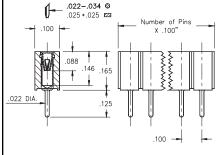
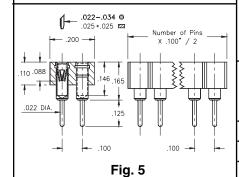


Fig. 4

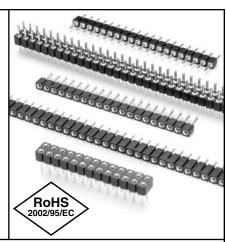


 Series 350 & 450 single and double row headers use MM #0290 pins. See page 182 for details.

- Series 801 & 803 single and double row low profile sockets use MM #1303 pins. See page 150 for details.
- Series 801 and 803 receptacles use Hi-Rel, 6-finger BeCu #16 contacts rated at 4.5 amps. Receptacles accept .025" diameter and .025" square pins. See page 221 for details.
- · Insulators are high temp. thermoplastic.

Mechanical & Environ

Data, See pg. 4



Ordering Information

Fig. 1	Single Row	.025 Pin / .018 Solder Tail
	350-X	X-100-001000
	Specify # of pin	s
	Double Row	.025 Pin / .018 Solder Tail

Fig. 2 450-XX-2 _ _-00-001000

Specify # of pins For Electrical. For RoHS compliance XX=Plating Code

	V				
SPECIFY PLA	TING CODE XX=	10♦	90	40♦	
Pin Plating		10μ" Au	200μ" Sn/Pb	200μ" Sn	

Single Row Low Profile Socket (short insulator) Fig. 3 801-43-0 -10-003000 Specify # of pins 01-64

See Below

Single Row Low Profile Socket (long insulator) 801-43-0 -10-013000 Fig. 4

> Specify # of pins 01-36

Double Row Low Profile Socket Fig. 5 803-43-0 _ _-10-003000 Specify # of pins 02-72

Data, See pg. 4 PLATING CODE = 43♦ Sleeve (Pin) 200µ"Sn 30µ" Au Contact (Clip)

For Electrical.

Mechanical & Enviromental

For RoHS compliance

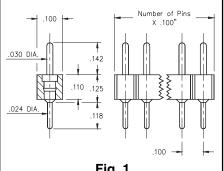
select \diamondsuit plating code.

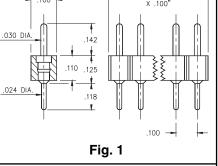
select \diamondsuit plating code.



INTERCONNECTS .100" Grid (.030" dia.) Low Profile Headers & Versatile Sockets Single and Double Row

Series 800, 801 802, 803





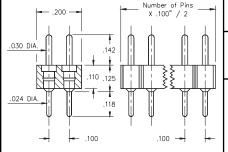


Fig. 2

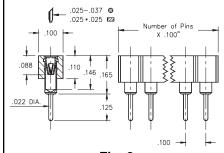
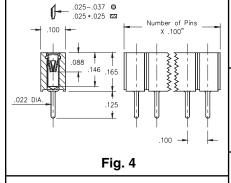
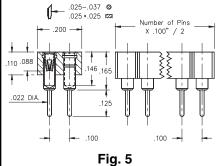


Fig. 3





Series 800 and 802 single and double row pin headers use MM #5016 pins. See page 182 for details.

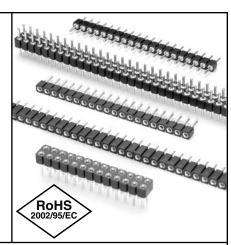
- Series 801 and 803 single and double row sockets use MM #1303 pins. See page 150 for details.
- Series 801 and 803 receptacles use Hi-Rel, 6-finger BeCu #47 contacts rated at 4.5 amps. Receptacles accept .025" diameter and .025" square pins. See page 221 for details.
- Insulators are high temp. thermoplastic.

Fig. 2

Fig. 5

For Electrical.

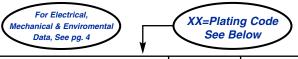
Mechanical & Enviromental



Ordering Information

	Single Row	Low Profile Pin Header	
Fig. 1	800-X>	800-XX-010-002000	
9	Specify # of pins	o1-64	

Double Row Low Profile Pin Header 802-XX-0 -10-002000 Specify # of pins



For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=	10♦	90	40♦	
Pin Plating ————	10μ" Au	200μ" Sn/Pb	200μ" Sn	

Single Row Low Profile Socket (short insulator) 801-XX-0 -10-002000 Fig. 3

> Specify # of pins 01-64

Single Row Low Profile Socket (long insulator) 801-XX-0 -10-012000 Fig. 4

Specify # of pins 01-36

Double Row Low Profile Socket

803-XX-0 _ _-10-002000 Specify # of pins 02-72

XX=Plating Code

See Below Data, See pg. 4 SPECIFY PLATING CODE XX: 43 ♦ Sleeve (Pin) 200µ" Sn/Pb 200µ" Sn/Pb 200µ"Sn 30µ" Au 200µ"Sn/Pb 30µ" Au Contact (Clip)

For RoHS compliance

select \diamondsuit plating code.



INTERCONNECTS .100" Grid (.030" dia.) Pins, Straight and Right Angle **Single Row**

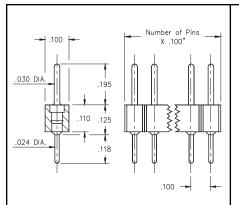
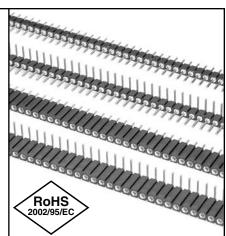


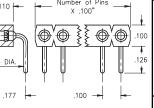
Fig. 1

- · Pin interconnects available with straight MM #7007 or right angle MM #5005 solder tails. See page 182 for details.
- Sockets are available with straight MM #1304 or right angle MM #1305 solder tails. See pages 148 & 149 for details.
- MM #1304 and MM #1305 receptacles use Hi-Rel, 6-finger BeCu #47 contacts rated at 4.5 amps. Receptacles accept .030" diameter and .025" square pins. See page 221 for details.
- Insulators are high temp. thermoplastic.



X .100" .030 DIA.

Fig. 2



.025-.037 Number of Pins .088 .024 DIA .118

Fig. 3

.100

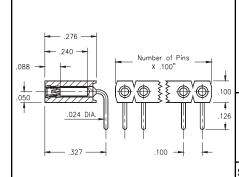


Fig. 4

Ordering Information

	Series 80010-001	Straight Pin Header
Fig. 1	800-XX-0_	10-001000
	Specify # of pins	→ 01-64

800-XX-0 _ _-20-001000 Specify # of pins 02-64



Fig. 2

Fig. 3

Fig. 4

XX=Plating Code See Below

For RoHS compliance select \diamondsuit plating code.

Right Angle Pin Header

Series 80110-001				Straight	Socket
Pin Plating —		10μ" Au	200μ" Sn/Pb	200μ" Sn	
SPECIFY PLATING	CODE XX=	10♦	90	40♦	

Series 800...20-001

Series 801...10-001 44 Plating

Non-Standard

44 Plating

801-XX-0 _ _-10-001000

Specify # of pins

Series 801...20-001

801-XX-0 _ _-20-001000

Specify # of pins

For Electrical, XX=Plating Code Mechanical & Enviromenta See Below Data, See pg. 4

For RoHS compliance select \diamondsuit plating code.

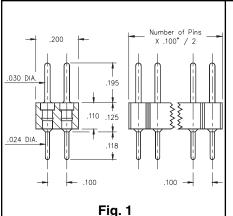
01-50

Right Angle Socket

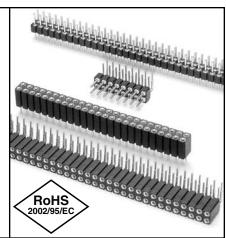
SPECIFY PLATING CODE XX= 93 43 ♦ 44 ♦ Sleeve (Pin) 200µ" Sn/Pb 200µ" Sn/Pb 200μ"Sn | 200μ"Sn 200µ"Sn/Pb Contact (Clip) 0 30µ" Au 30μ" Au | 200μ"Sn



INTERCONNECTS .100" Grid (.030" dia.) Pins, Straight and Right Angle Double Row



- Pin interconnects available with straight MM #7007 or right angle MM #5005/5107 solder tails. See page 182 for details.
- Sockets are available with straight MM #1304 or right angle MM #1305/1306 solder tails. See pages 148 & 149 for details.
- MM #1304, #1305 & #1306 receptacles use use Hi-Rel, 6-finger BeCu #47 contacts rated at 4.5 amps. Receptacles accept .030" diameter and .025" square pins. See page 221 for details.
- Insulators are high temp. thermoplastic.



Number of Pins X .100" / 2 Number of Pins X .100" / 2 O30 DIA. 1126

Fig. 2

Ordering Information

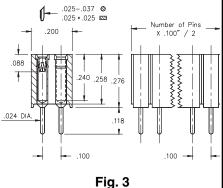
Fig. 1 802-XX-0_ _-10-001000
Specify # of pins 02-64

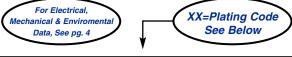
Series 802...10-001

Fig. 2

Series 802...20-001 Right Angle Pin Header 802-XX-0 _ _-20-001000

Specify # of pins 02-64





For RoHS compliance select ♦ plating code.

Straight Socket

Right Angle Socket

Straight Pin Header

 SPECIFY PLATING CODE XX=
 10 φ
 90
 40 φ

 Pin Plating
 10μ" Au
 200μ" Sn/Pb
 200μ" Sn

Series 803...10-001

Series 803...20-001

Fig. 3

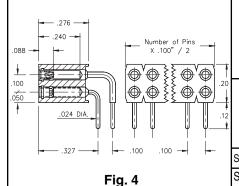
803-XX-_ _ -10-001000

Specify # of pins
→ 002-100

Fig. 4

803-XX-_ _ -20-001000

Specify # of pins 002-100



For Electrical,
Mechanical & Environmental
Data, See pg. 4

XX=Plating Code See Below

For RoHS compliance select \diamondsuit plating code.

 SPECIFY PLATING CODE XX=
 93
 99
 43 ♦

 Sleeve (Pin)
 200μ" Sn/Pb
 200μ" Sn/Pb
 200μ" Sn/Pb

 Contact (Clip)
 30μ" Au
 200μ" Sn/Pb
 30μ" Au



INTERCONNECTS .100" Grid (.030" dia.) Pins, Solderless Press-Fit **Single Row**

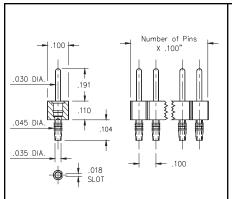


Fig. 1

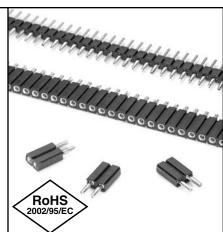
- The unique compliant tail pins conform to .040"±.003" finished hole without stressing inner layers. Patent No. 4,799,904
- Series 800 pin headers are offered in two tail lengths for .060"-.100" (MM #5601) and .090"-.130" (MM #5602) thick panels. See page 187 for details.
- Series 801 sockets MM #4614 or #4615 use Hi-Rel, 6-finger BeCu #47 contacts rated at 4.5 amps. Receptacles accept .030" diameter pins & .025" square pins. See page 221 for details.
- Insulators are high temp. thermoplastic.

Data, See pg. 4

Fig. 4

For Electrical.

Mechanical & Enviromental



Number of Pins .045 DIA .035 DIA

Fig. 2

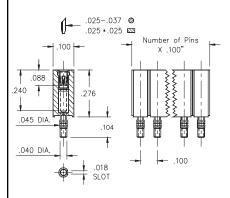


Fig. 3

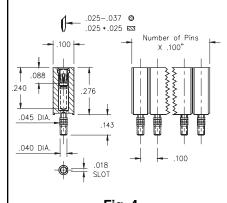


Fig. 4

Ordering Information

Compliant Tail Pin Header

	for .06010	0" thick b	ooards	
Fig. 1	800-XX-0	800-XX-061-001000		
	Specify # of pins	L	01-64	

Compliant Tail Pin Header for .090 - .130" thick boards Fig. 2 800-XX-0 _ _-62-001000

> Specify # of pins 01-64

> > See Below

For Electrical For RoHS compliance XX=Plating Code Mechanical & Enviromenta

SPECIFY PLATING CODE XX= 10 ♦ 90 40♦ 10μ" Au 200μ" Sn/Pb 200μ" Sn Pin Plating

Compliant Tail Socket for .060 - .100" thick boards Fig. 3 801-XX-0 _ _-61-001000

> Specify # of pins 01-50

> > for .090 - .130" thick boards 801-XX-0 -62-001000

Compliant Tail Socket

Specify # of pins

See Below Data, See pg. 4 SPECIFY PLATING CODE XX: 43 ♦ Sleeve (Pin) 200µ" Sn/Pb 200µ" Sn/Pb 200µ"Sn 200µ"Sn/Pb Contact (Clip) 30µ" Au 30µ" Au

XX=Plating Code

01-50

For RoHS compliance

select 🔷 plating code.

select \diamondsuit plating code.



INTERCONNECTS .100" Grid (.030" dia.) Pins, Solderless Press-Fit **Double Row**

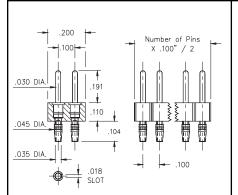
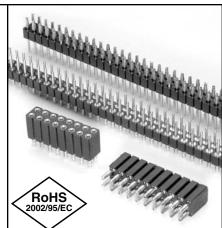


Fig. 1

- The unique compliant tail pins conform to .040"±.003" finished hole without stressing inner layers. Patent No. 4,799,904
- Series 802 pin headers are offered in two tail lengths for .060"-.100" (MM #5601) and .090"-.130" (MM #5602) thick panels. See page 187 for details.
- Series 803 sockets MM #4614 or #4615 use Hi-Rel, 6-finger BeCu #47 contacts rated at 4.5 amps. Receptacles accept .030" diameter pins & .025" square pins. See page 221 for details.
- Insulators are high temp. thermoplastic.



Number of Pins X .100" / 2 .030 DIA .035 DIA

Fig. 2

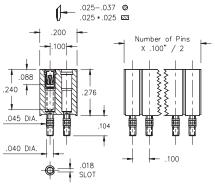


Fig. 3

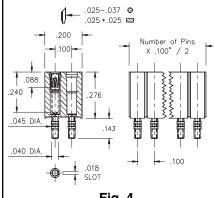
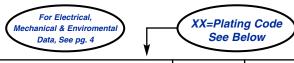


Fig. 4

Ordering Information

	Compliant Tail Pin Header for .060100" thick boards		
Fig. 1	802-XX-061-001000		
	Specify # of pins		
Compliant Tail Pin Header for .090130" thick boards			
Fig. 2	802-XX-062-001000		
	Specify # of pins 02-64		



For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CO	DE XX= 10 ♦	90	40♦	
Pin Plating ————————————————————————————————————	⊐— 10μ" Au	200μ" Sn/Pb	200μ" Sn	
			·	

Compliant Tail Socket for .060 - .100" thick boards Fig. 3 803-XX- -61-001000

Specify # of pins 002-100

Compliant Tail Socket for .090 - .130" thick boards Fig. 4 803-XX- -62-001000

> Specify # of pins 002-100

Data, See pg. 4 SPECIFY PLATING CODE XX: 43 ♦ Sleeve (Pin) 200µ" Sn/Pb 200µ" Sn/Pb 200µ"Sn 30µ" Au 200µ"Sn/Pb 30µ" Au Contact (Clip)

XX=Plating Code

See Below

For Electrical.

Mechanical & Enviromental

For RoHS compliance

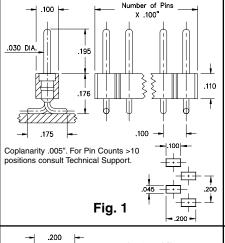
select 🔷 plating code.



INTERCONNECTS

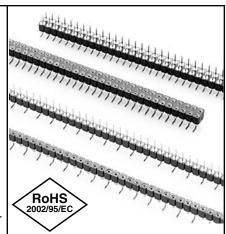
Series 800, 801, 802, 803

.100" Grid (.030" dia.) Pins, Surface Mount Headers & Sockets Single and Double Row

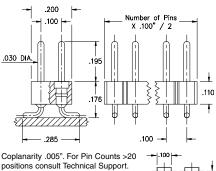


- Series 800 & 802 use MM #7007 pins. See page 182 for details.
- Series 801 & 803 use MM #1304 receptacles and accept pin diameters from .025"-.037" and .025" square pins. See page 148 for details.
- Receptacles use Hi-Rel, 6 finger BeCu #47 contact rated at 4.5 amps. See page 221 for details.
- Insulators are high temp. thermoplastic.

800...001



Single Row Surface Mount Header

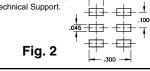


.025-.037 ∅ .025 * .025 🖾

.088

Ordering Information

800-10-0 -30-001000 Specify # of pins 03-64



Number of Pins X .100'

Fig. 2

Fig. 1

802...001 **Double Row Surface Mount Header** 802-10-0 -30-001000 Specify # of pins



For RoHS compliance select \diamondsuit plating code.

.100
Coplanarity .005". For Pin Counts >10 positions consult Technical Support.
Fig. 3
.025037

Fig. 3

Pin Plating

PLATING CODE =

Single Row Surface Mount Socket 801...001 801-43-0 _ _-30-001000

Specify # of pins 03-50

Double Row Surface Mount Socket

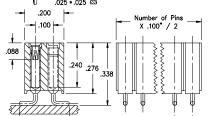


Fig. 4

Coplanarity .005". For Pin Counts >20 positions consult Technical Support.

www.mill-max.com

Fig. 4

803-XX-_ _ _-30-001000

Specify # of pins

10♦

10μ" Au

.100

For Electrical, Mechanical & Enviromenta Data, See pg. 4

85

803...001

XX=Plating Code See Below

30µ" Au

For RoHS compliance select \diamondsuit plating code.

004-100

SPECIFY PLATING CODE XX= 93 Sleeve (Pin) 200µ" Sn/Pb

43 ♦

200µ"Sn

INTERCONNECTS .100" Grid (.040" dia.) Pins, Headers and Sockets **Single and Double Row**

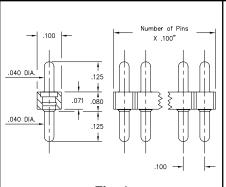
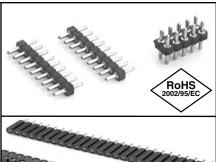


Fig. 1

- Series 800 and 802 single & double row interconnects feature sturdy .040" Dia. leads (MM #3077) and low profile (.071" thick) insulator. See page 182 for details.
- Series 801 and 803 single and double row sockets use MM #1313 receptacles. See page 151 for details.
- Series 801 and 803 receptacles use Hi-Rel, 6-finger BeCu #18 contacts rated at 8 amps. Receptacles accept .037"-.043" diameter pins. See page 222 for details.
- Insulators are high temp. thermoplastic.





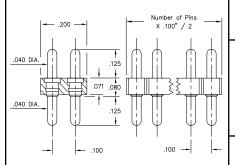


Fig. 2

Ordering Information

	Series 80010-004	Single Row Pin Header
Fig. 1	800-XX-0	o10-004000
	Specify # of pins	→ 01-50

Fig. 2 802-XX-_ _ _-10-004000

Series 802...10-004

Double Row Pin Header

Specify # of pins 04-100

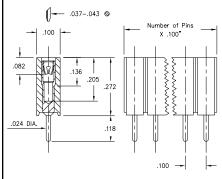


Fig. 3





For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=	10♦	90	40♦
Pin Plating ————	10μ" Au	200μ" Sn/Pb	200μ" Sn

.037-.043 🛇 .082 .024 DIA

Fig. 4

Series 801...10-004 **Single Row Socket**

801-XX-0_ _-10-004000 Fig. 3 Specify # of pins 01-50

> Series 803...10-004 **Double Row Socket**

803-XX- -10-004000 Fig. 4

Specify # of pins → 004-100

For Electrical, For RoHS compliance XX=Plating Code hanical & Envirome select \diamondsuit plating code. See Below Data, See pg. 4

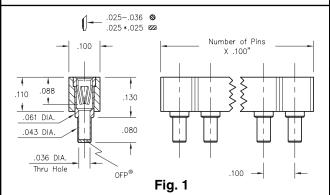
SPECIFY PLATING CODE XX=		93	99	43♦	
Sleeve (Pin)		200µ" Sn/Pb	200µ"Sn/Pb	200μ"Sn	
Contact (Clip)		30μ" Au	200µ"Sn/Pb	30µ" Au	

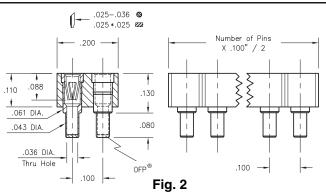


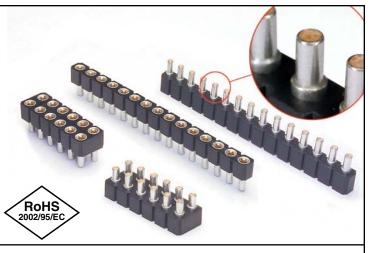
.100" Grid OFP[®] Pass Through Sockets for Ø.030" & □.025" pins Single and Double Row

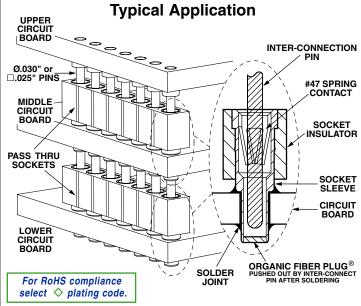
- 834/835 Series Pass Through Sockets have a low .130" profile and will accept Ø.030" round pin, as well as industry standard .025" square pin headers.
- They are typically used to interconnect two or more parallel circuit boards.
- Sockets are designed for hand, wave or reflow* soldering. The high temp. insulator is compatible with all solder processes.
- Unique ORGANIC FIBRE PLUG[®] barriers prevent solder, paste or flux from contaminating the internal spring contacts. After soldering, the OFP[®] barriers are pushed out of the socket when the mating header is inserted.
- Mill-Max sockets use a precision-machined brass sleeve with a press-fit beryllium copper "multi-finger" spring contact.
- Recommended mounting holes are Ø.046 ±.003" PTH (1,2 mm drilled prior to plating).

*Intrusive reflow (also called "pin-in-paste") is a technique of using conventional through-hole components in a reflow soldering process. The pass through socket is placed into plated through-holes in the circuit board (solder paste has previously been screen printed on pads adjacent to the holes) and the board is reflowed in the same pass as other SMT components. Solder will fill the plated through-holes and achieve solder joints as reliable as wave soldering. The OFP® barrier prevents solder paste from being picked-up inside the contact during assembly.









US Patent #7,086,870

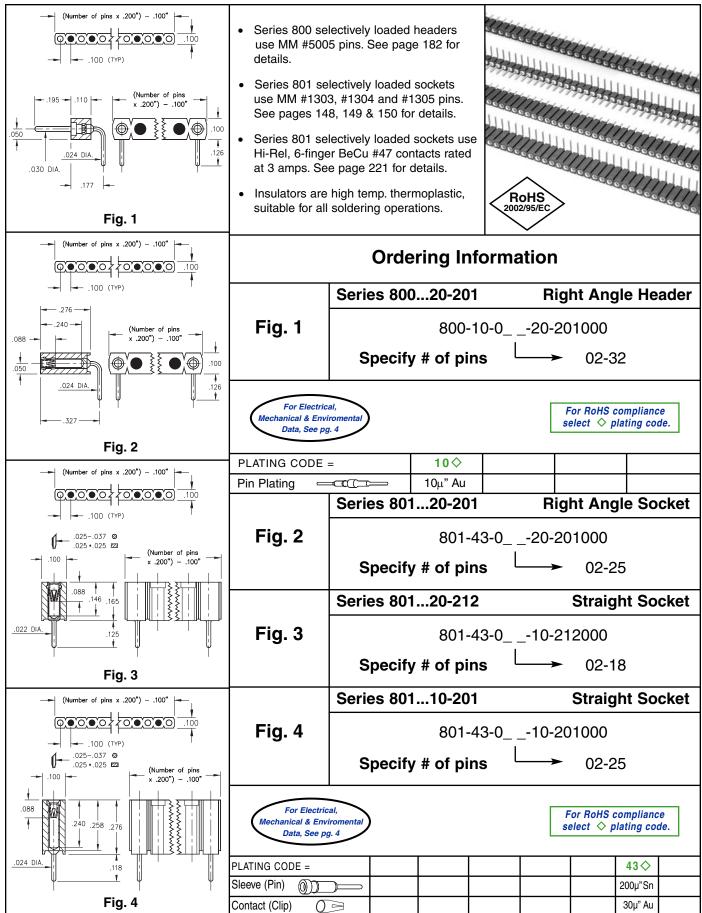
Ordering Information

	Single Row	OFP ^w Pass	Through Socket
Fig. 1		834-XX-0 _	10-001000
	Specify	# of pins	▶ 01-64

Mechanical & Enviromental Data, See pg. 4	XX=Platin See Be	
SPECIFY PLATING CODE XX=	93	43 ♦
Sleeve (Pin)	200μ" Sn/Pb	200μ"Sn
Contact (Clip)	30μ" Au	30μ" Au

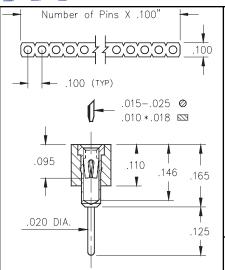


INTERCONNECTS .200" Grid (.030" dia.) Pins, Straight and Right Angle Single Row

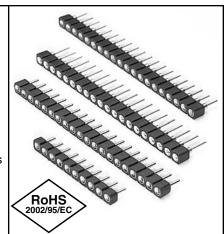




SINGLE-IN-LINE SOCKETS .100" Grid Solder Tail Single Row



- SIP sockets accept .015 .025" diameter pins and standard IC leads.
- Various solder tails available: standard length, long for multi-layer boards, very low and ultra low profile. See Mill-Max #1001, 0134, 0501 or 1534 pins (See pages 132, 133, 136) for details.
- Hi-Rel, 4-finger BeCu #12 & #30 contacts are rated at 3 amps. See pages 218 for details.
- Insulators are high temp. thermoplastic.



Long Solder Tail

Very Low Profile

Ultra Low Profile

Ordering Information

Series 311...001

Series 315...001

Series 315...003

	.015025 Ø .010 * .018 🖾
.103	.110 .150 .165
'	
.020 DIA.	.170
Ψ	

Fig. 2

Fig. 1

Fig. 2

Fig. 1

*** 41 & 91 Platings Non-Standard ** 311-XX-1_ _-41-001000 ***

Specify # of pins ** 01-64

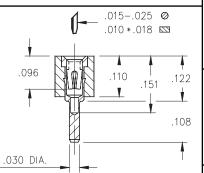


Fig. 3 ★

Fig. 4

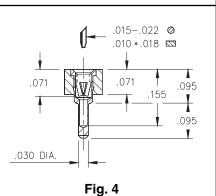
41 & 91 Platings Non-Standard 315-XX-1_ _-41-001000

Specify # of pins 01-64

★ 41 & 91 Platings Non-Standard 315-XX-1_ _-41-003000

Specify # of pins 01-64

Fig. 3



For Electrical,
Mechanical & Environmental
Data, See pg. 4

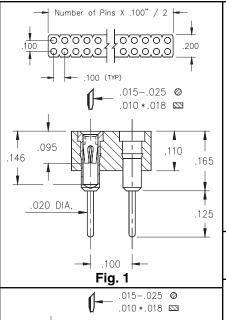
XX=Plating Code See Below

For RoHS compliance select \diamondsuit plating code.

ING CODE XX=	13♦	91	93	99	41 💠	43♦	44♦
	10μ" Au	200µ" Sn/Pb	200µ" Sn/Pb	200µ"Sn/Pb	200μ"Sn	200μ"Sn	200μ"Sn
	30µ" Au	10µ" Au	30µ" Au	200µ"Sn/Pb	10µ" Au	30µ" Au	200µ"Sn
		10μ" Au	10μ" Au 200μ" Sn/Pb	10μ" Au 200μ" Sn/Pb 200μ" Sn/Pb	10μ" Au 200μ" Sn/Pb 200μ" Sn/Pb 200μ" Sn/Pb 200μ" Sn/Pb	10μ" Au 200μ" Sn/Pb 20μ" Sn/Pb 20μ" Sn/Pb 20μ" Sn/Pb 20μ" Sn/Pb 20μ" Sn/Pb 20	10μ" Au 200μ" Sn/Pb 200μ" Sn/Pb 200μ" Sn/Pb 200μ" Sn/Pb 200μ" Sn 200μ" Sn



SINGLE-IN-LINE SOCKETS .100" Grid Solder Tail **Double Row**



- Series 41X double row strip sockets are on .100" grid.
- Various solder tails available: standard length, long for multi-layer boards, very low and ultra low profile. Using Mill-Max #1001, 0134, 0501 or 1534 pins (See pages 132, 133, 136) for details.
- Hi-Rel, 4-finger BeCu #12 & #30 contacts are rated at 3 amps. See page 218 for
- Insulators are high temp. thermoplastic.



Long Solder Tail

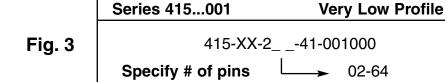
Ordering Information

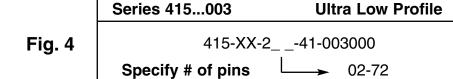
Fig. 1
.015025 Ø .010 *.018 \boxed{\text{S1}} .103 \boxed{\text{.110}} .150 \boxed{\text{.110}} .165
Fig. 2
.015025 Ø .010 * .018 🖾
.096

	Series 410001	Standard Solder Tail
Fig. 1	410-XX-2_	41-001000
	Specify # of pins	02-64

Series 411...001

Fig. 2	411-13-2_	41-00	1000
	Specify # of pins		02-64





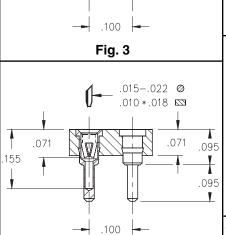


Fig. 4

.030 DIA

.108



200µ" Sn/Pb

30µ" Au

0

Contact (Clip)

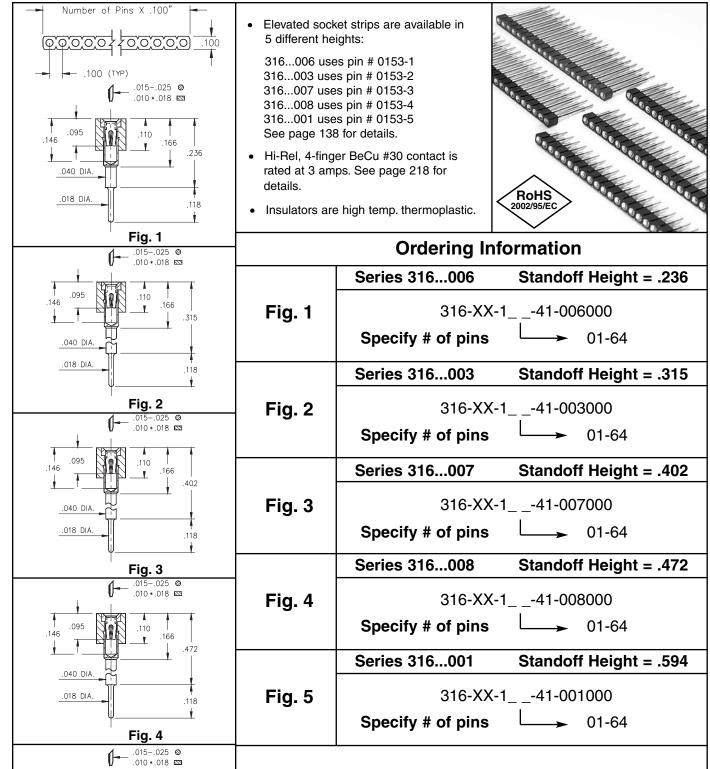
10µ" Au

30µ" Au

200µ"Sn



SINGLE-IN-LINE SOCKETS .100" Grid Elevated Single Row



.040 DIA.

.018 DIA

.166

Fig. 5

For Electrical,

Mechanical & Environmental

Data, See pg. 4

SPECIFY PLATING CODE XX=

Sleeve (Pin)

Contact (Clip)

43♦

200µ"Sn

30µ" Au

For RoHS compliance

select \diamondsuit plating code.

XX=Plating Code

See Below

93

200µ" Sn/Pb



SINGLE-IN-LINE SOCKETS .100" Grid Elevated Double Row

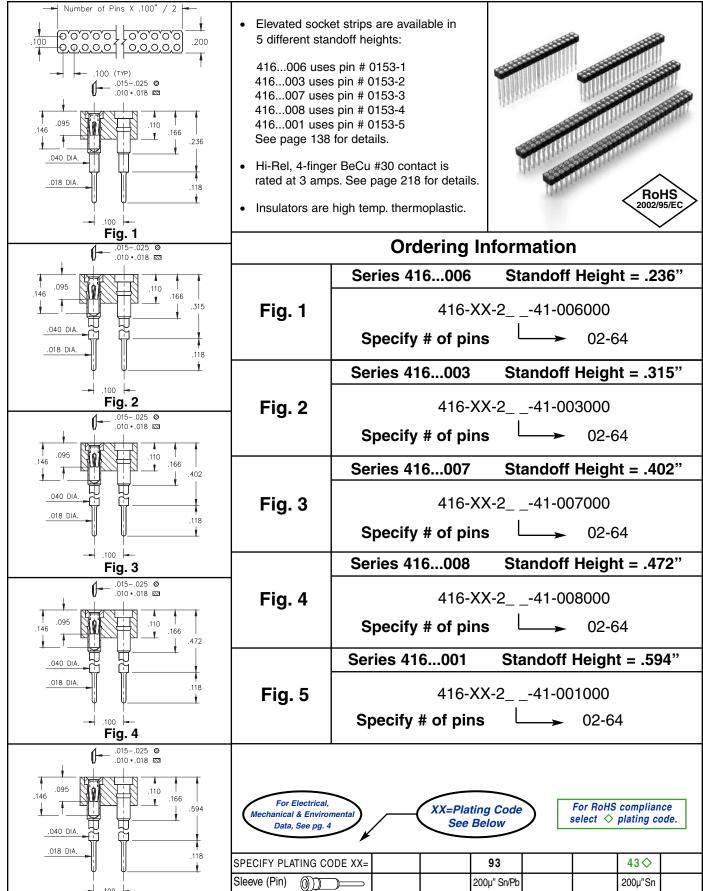


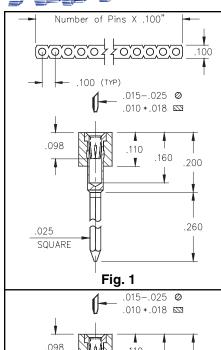
Fig. 5

Contact (Clip)

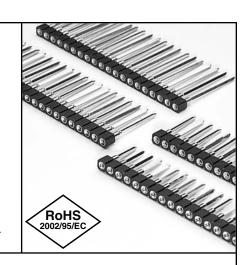
30µ" Au

SINGLE-IN-LINE SOCKETS .100" Grid Wrapost Single Row

Series 321, 322 323, 324



- Wraposts available in 1 4 levels using MM pin numbers:
 - 1-Level uses pin # 0040-1
 - 2-Level uses pin # 0089-2
 - 3-Level uses pin # 0088-3
 - 4-Level uses pin # 0086-4 See page 166 for details.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



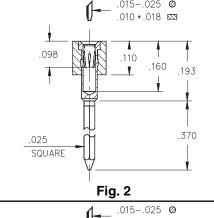
1 Level Wrapost

2 Level Wrapost

3 Level Wrapost

4 Level Wrapost

Ordering Information



.110

.160 .193

.098

.025

SQUARE

Fig. 1 321-13-1__-41-001000

Series 321...001

Series 322...001

Series 323...001

Series 324...002

Specify # of pins 01-64

Fig. 2

322-XX-1_ _-41-001000

Specify # of pins □ → 01-64

.010 *.018 🖾 Fig. 3

.510

323-XX-1_ _-41-001000

Specify # of pins 01-64

Fig. 4

324-XX-1_ _-41-002000

Specify # of pins 01-64

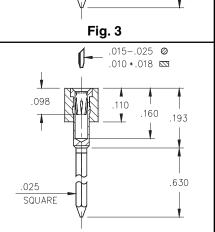


Fig. 4

For Electrical,
Mechanical & Enviromental
Data, See pg. 4

XX=Plating Code See Below

For RoHS compliance select \diamondsuit plating code.

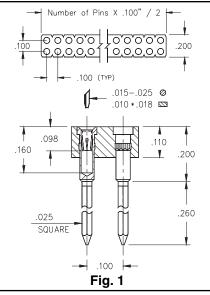
 SPECIFY PLATING CODE XX=
 13 Φ
 93
 43 Φ

 Sleeve (Pin)
 10μ" Au
 200μ" Sn/Pb
 200μ" Sn

 Contact (Clip)
 30μ" Au
 30μ" Au
 30μ" Au

SINGLE-IN-LINE SOCKETS .100" Grid Wrapost Double Row

Series 421, 422 423, 424



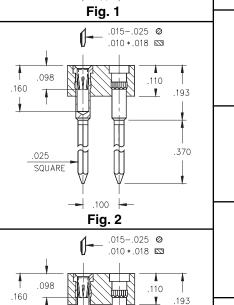
- Wrapost double row strip sockets are available with 1 - 4 level wraposts:
 - 1-Level uses pin # 0040-1 2-Level uses pin # 0089-2 3-Level uses pin # 0088-3
 - 4-Level uses pin # 0086-4 See page 166 for details.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



1 Level Wrapost

2 Level Wrapost

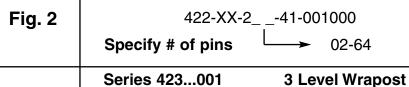
Ordering Information

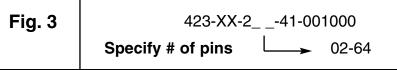


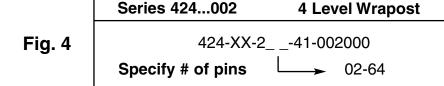
	•
Fig. 1	421-XX-241-001000
	Specify # of pins 02-64

Series 421...001

Series 422...001







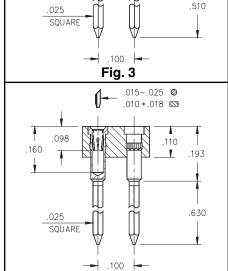


Fig. 4



200µ" Sn/Pb

30µ" Au

00

10µ" Au

30µ" Au

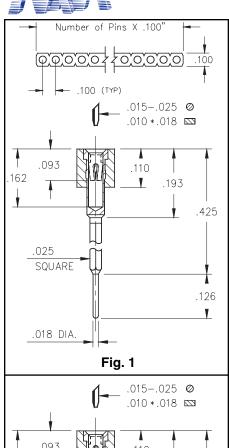
Sleeve (Pin)

Contact (Clip)

200µ"Sn



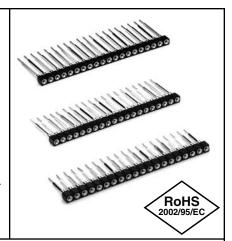
SINGLE-IN-LINE SOCKETS .100" Grid Wrapost with Solder Tail Single Row



 Wrapost / Solder tail combinations are available in 3 lengths using MM pin numbers:

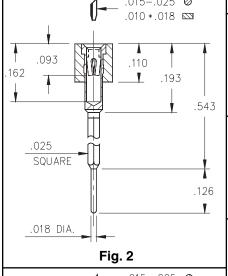
326...001 uses pin # 2601 326...002 uses pin # 2602 326...003 uses pin # 2603 See page 167 for details.

- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



Ordering Information

	Series 326001				
Fig. 1	326-XX-141-001000				
	Specify # of pins 01-64				
Fig. 2	Series 326002				
	326-XX-141-002000				
	Specify # of pins 01-64				
Fig. 3	Series 326003				
	326-XX-141-003000				
	Specify # of pins 01-64				



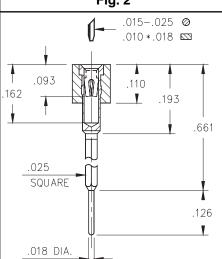
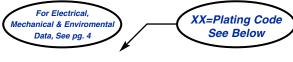


Fig. 3

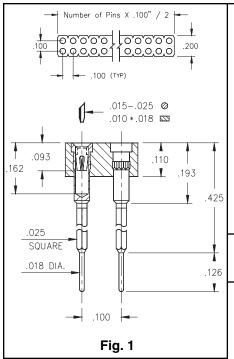


For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=		93		43♦	
Sleeve (Pin)		200μ" Sn/Pb		200µ"Sn	
Contact (Clip)		30µ" Au		30µ" Au	



SINGLE-IN-LINE SOCKETS .100" Grid Wrapost with Solder Tail Double Row



 Wrapost / Solder tail combination for interconnect purposes are available in 3 lengths using pin numbers:

426...001 uses pin # 2601 426...002 uses pin # 2602 426...003 uses pin # 2603 See page 167 for details.

- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



Ordering Information

	Series 426001	1 Level Wrapost			
Fig. 1	426-XX-2	41-001000			
	Specify # of pins	→ 02-64			
	Series 426002	2 Level Wrapost			
Fig. 2	426-XX-241-002000				
	Specify # of pins	→ 02-64			
	Series 426003	3 Level Wrapost			
Fig. 3	426-XX-2	41-003000			
	Specify # of pins	▶ 02-64			

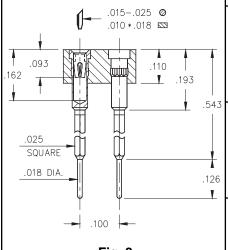
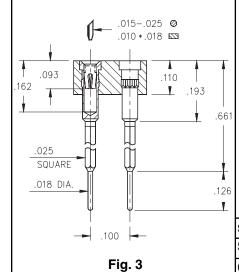


Fig. 2





XX=Plating Code See Below For RoHS compliance select \diamondsuit plating code.

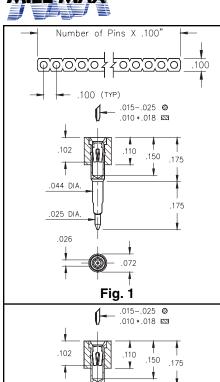
SPECIFY PLATING CODE XX=	13♦	93	43 ♦	
Sleeve (Pin)	10μ" Au	200μ" Sn/Pb	200μ"Sn	
Contact (Clip)	30µ" Au	30µ" Au	30µ" Au	



.044 DIA

.025 DIA

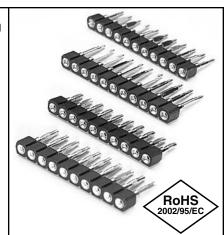
SINGLE-IN-LINE SOCKETS .100" Grid Solderless Press-Fit Single Row



- Unique compliant tail pins conform to the plated through-hole without stressing the inner layers of a multilayer board.
- Recommended plated through-hole for 304 series: .036"-.041" use a 1.1mm drill prior to plating. Using MM #0477 & #0478 pins, see page 133 for details.
- For 346 series: .040"±.003" finished plated through-hole. Using MM #4612 & #4613 pins, see page 133 for details. Patent No. 4,799,904.
- Hi-Rel, 4 finger BeCu #30 contact is rated at 3 amps. See page 218 for details.

Series 304 770

Insulators are high temp. thermoplastic.

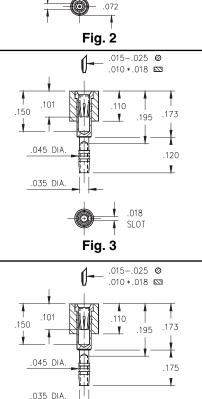


SOI DERI ESS PRESS-FIT

Ordering Information

	361165 304770	30LDLNLL33 FNL33-FII		
	(For .062" Thick Boards)			
Fig. 1	304	4-13-141-770000		
	Specify # of p	oins 01-64		
	Series 304780	SOLDERLESS PRESS-FIT		
Fig. 2	(For .	125" Thick Boards)		
	304	4-13-1 __ -41-780000		
	Specify # of p	oins		
		<u> </u>		

Mill-Max recommends plating Code 13 for Series 304...770 and 304...780



.250

Series 3	46012	COMPLIANT SOLDERLESS PRESS-FIT		
Fig. 3		(For .060100" Thick Boards)		
	346-XX-141-012000			
	Sp	pecify # of pins 01-64		
Series 3	46013	COMPLIANT SOLDERLESS PRESS-FIT		
		(For .090130" Thick Boards)		

Fig. 4 346-XX-1_ _-41-013000
Specify # of pins 01-64

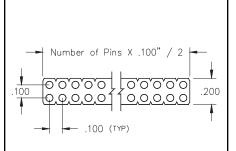


Fig. 4

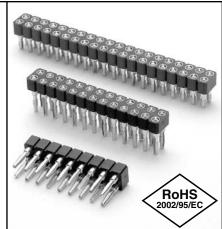
.018

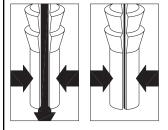


SINGLE-IN-LINE SOCKETS .100" Grid Compliant Tail **Double Row**



- Compliant tail solderless press-fit: MM #4612 or #4613 pins. Use series 446...012 for .060"-.120" thick boards, and series 446...013 for .090"-.130" thick boards. See Page 133 for details.
- Compliant tail receptacles can be inserted and removed without any degradation of the plated through-hole.
- Hi-Rel, 4 finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- · Insulators are high temp. thermoplastic.





APPLICATION OF COMPLIANT TAIL PINS

Mill-Max's patented* compliant tail features precision-machined pins that are hollow and slotted to conform to a .040" ± .003" diameter PTH. As the pin is inserted, the slot compresses to fit the PTH, thus avoiding damage (see illustration at left). The pin's tail has fine serrations that form a perfect "gas tight" connection that doesn't require soldering. And since the pin doesn't damage the hole, compliant tail sockets and connectors can be easily replaced. *Patent No. 4,799,904.

.015-.025 Ø **Ordering Information** .010. * 010. Series 446...012 .173 446-XX-2 -41-012000 Fig. 1 060-100 .120 Specify # of pins 02-64 0.35 DIA .037-.043 Series 446...013 DIA. PLATED THRU HOLE 446-XX-2_ _-41-013000 .018 Fig. 2 SLOT 02-64 Specify # of pins Fig. 1 .015-.025 Ø .010. * .010. .110 .173 .090-.130 175 For Electrical, For RoHS compliance XX=Plating Code .037-.043 .035 DIA. Mechanical & Enviromenta select \diamondsuit plating code. See Below

SLOT

Fig. 2

 \supset

13 ♦

10µ" Au

30µ" Au

93

200µ" Sn/Pb

30µ" Au

200µ"Sn/Pb

200µ"Sn/Pb

Data, See pg. 4

SPECIFY PLATING CODE XX=

Sleeve (Pin)

Contact (Clip)

43 ♦

200µ"Sn

44 🔷

200µ"Sn

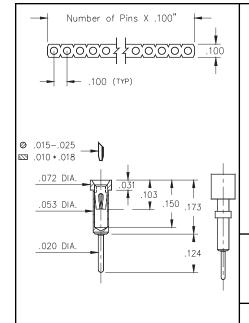
30μ" Au | 200μ"Sn

DIA. PLATED

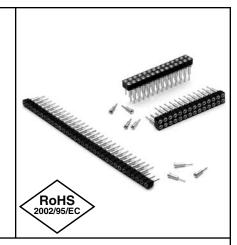
THRU HOLF



SINGLE-IN-LINE SOCKETS .100" Grid Carrier with Solder Tail Single and Double Row



- Standard solder tail receptacles can be mounted as a low profile receptacle or by the solder tail for use in smaller diameter holes.
- Series 712 uses MM #0255 pins.
 See page 136 for details.
- Hi-Rel, 4-finger BeCu #30 contact is rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



Ordering Information

Fig. 1 Single Row (.028 or .055 min. mounting holes)

Specify # of pins

→ 01-64

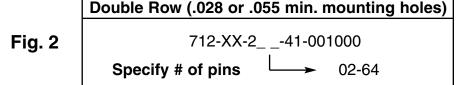


Fig. 1

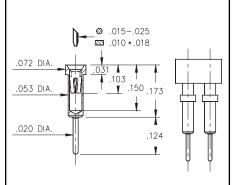
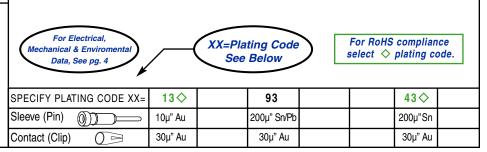
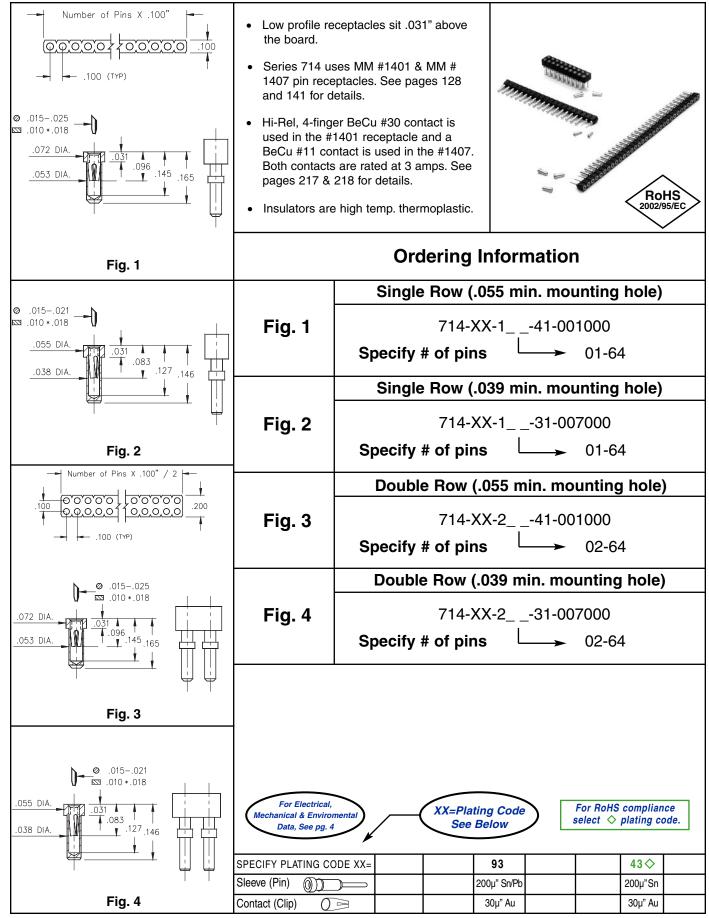


Fig. 2



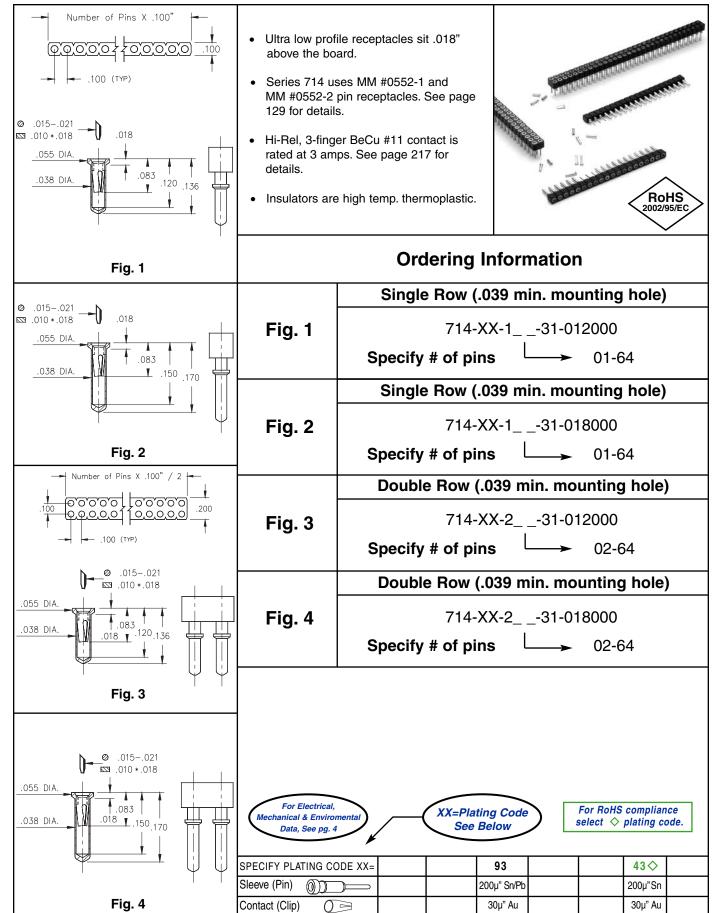


SINGLE-IN-LINE SOCKETS .100" Grid Low Profile Carriers Single and Double Row





SINGLE-IN-LINE SOCKETS .100" Grid Ultra Low Profile Carriers Single and Double Row



HEADER STRIPS .100" Grid (.018" dia.) Pins, Low Profile **Single and Double Row**

Series 335, 364 435, 464

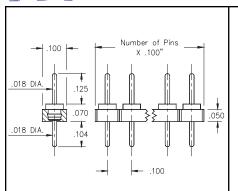
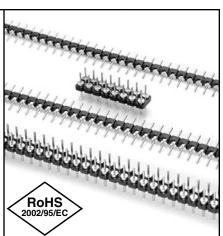


Fig. 1

- Series 335 and 435 single and double row PCB interconnects offer the lowest profile available .070".
- Series 364 and 464 single and double row PCB interconnects offer .085" profile above board.
- Series 335 and 435 use MM #3516 pins. See page 179 for details.
- Series 364 and 464 use MM #6458 pins. See page 180 for details.
- Insulators are high temp. thermoplastic.

Single Row

Double Row

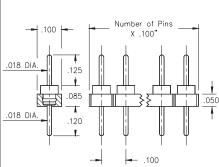


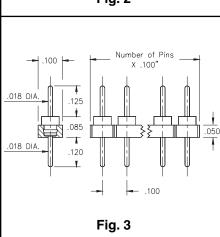
.070" Profile Pin Header

.070" Profile Pin Header

.200 Number of Pins X .100" / 2 .018 DIA.

Fig. 2





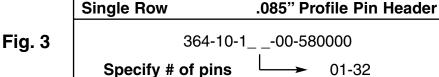
.200 Number of Pins .100 X .100" / 2

Fig. 4

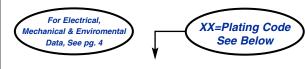
Ordering Information

Fig. 1	335-XX-1	00-16	0000
	Specify # of pins	>	01-32

ig. 2	435-XX-2	00-160000
	Specify # of pins	→ 02-72



	Double Row	.085" Profile Pin Header
ig. 4	464-10-2	200-580000
	Specify # of pins	→ 02-72

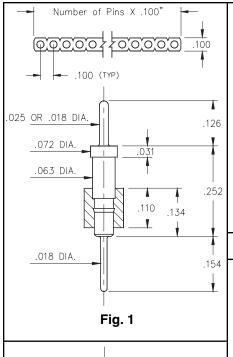


For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=	10♦	90	40♦	
Pin Plating —————	10μ" Au	200μ" Sn/Pb	200μ" Sn	



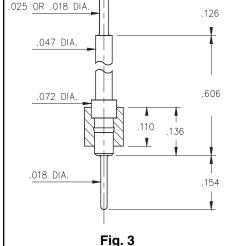
HEADER STRIPS .100" Grid Interconnect **Single Row**



- Series 351 Interconnect header strips come in three lengths with .018" dia. pluggable solder tails at one end and .025" dia. pins at the other, see series: 351...003 uses pin #5503 351...004 uses pin #5504 351...005 uses pin #5505
- .018" pluggable solder tails are available at both ends, please see series: 351...009 uses pin #5509 351...010 uses pin #5510 351...011 uses pin #5511 See pages 179 & 181 for details.
- RoHS

· Insulators are high temp. thermoplastic.

.018 DIA.		Ordering Information
.154		Series 351003 .018 / .025 Solder Tails
Ů		351-10-100-003000
Fig. 1	Fig. 1	Specify # of pins
	. 19. 1	Series 351009 .018 / .018 Solder Tails
.025 OR .018 DIA126		351-10-100-009000
.047 DIA.		Specify # of pins → 01-64
$\stackrel{\smile}{\sim}$		Series 351004 .018 / .025 Solder Tails
.072 DIA331		351-10-100-004000
.110 .136	Fig. 2	Specify # of pins 01-64
	9- =	Series 351010 .018 / .018 Solder Tails
.018 DIA		351-10-100-010000
Ų <u></u>		Specify # of pins 01-64
Fig. 2		Series 351005 .018 / .025 Solder Tails
I		351-10-100-005000
.025 OR .018 DIA	Fig. 3	Specify # of pins 01-64
.047 DIA.	9. 0	Series 351011 .018 / .018 Solder Tails
		351-10-100-011000
.072 DIA606		Specify # of pins 01-64
.110 .136		



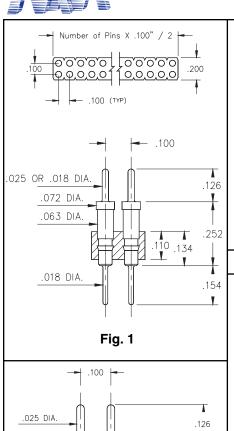
For Electrical, Mechanical & Enviromenta Data, See pg. 4

For RoHS compliance select \diamondsuit plating code.

10♦ PLATING CODE = 10μ" Au Pin Plating



HEADER STRIPS .100" Grid Interconnect Double Row



- Series 451 Interconnect header strips come in three lengths with .018" dia. pluggable solder tails at one end and .025" dia. pins at the other, see series: 451...003 uses pin #5503 451...004 uses pin #5504 451...005 uses pin #5505
- .018" pluggable solder tails are available at both ends, please see series:
 - 451...009 uses pin #5509 451...010 uses pin #5510
 - 451...011 uses pin #5511 See pages 179 & 181 for details.
- Insulators are high temp. thermoplastic.



Ordering Information

T T		Oracining init	omination		
.018 DIA154		Series 451003	.018 / .025 Solder Tails		
Ψ Ψ		451-10-2	200-003000		
Fig. 1	Fig. 1	Specify # of pins	→ 02-64		
	3	Series 451009	.018 / .018 Solder Tails		
.025 DIA.		451-10-2	200-009000		
.047 DIA.		Specify # of pins	→ 02-64		
		Series 451004	.018 / .025 Solder Tails		
.072 DIA331		451-10-2	200-004000		
.110 .136	Fig. 2	Specify # of pins	s 02-64		
.018 DIA.	Fig. 2	Series 451010	.018 / .018 Solder Tails		
154		451-10-	02-64 .018 / .025 Solder Tails 200-004000		
Fig. 2		Specify # of pins	→ 02-64		
- 100 -		Series 451005	.018 / .025 Solder Tails		
1 1		451-10-	200-005000		
.025 DIA126	Fig. 3	Specify # of pins	→ 02-64		
.047 DIA.	9. 9	Series 451011	.018 / .018 Solder Tails		
		451-10-	200-011000		

Fig. 3

.606

.154

.110

For Electrical,

Mechanical & Enviromenta

Data, See pg. 4

PLATING CODE =

Pin Plating

Specify # of pins

10♦

10μ" Au

For RoHS compliance

select \diamondsuit plating code.

.072 DIA

.018 DIA

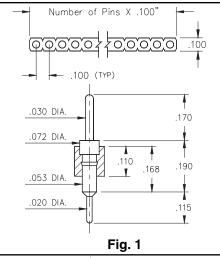


.030 DIA.

.072 DIA

.053 DIA. .020 DIA.

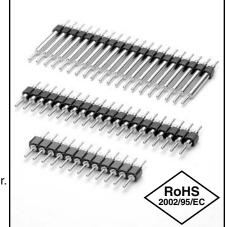
HEADER STRIPS .100" Grid Interconnects **Single Row**



• Series 334 Interconnect header strips are available in 5 lengths:

334...020 uses pin #3402 (L = .190") 334...010 uses pin #3401 (L = .236") 334...050 uses pin #3405 (L = .315") 334...000 uses pin #3400 (L = .606") 334...100 uses pin #3410 (L = 1.070") See pages 182 for details.

- Strips come with .020" pluggable solder tails at one end and .030" tails at the other.
- Insulators are high temp. thermoplastic.



.170 .236 .110

Fig. 2

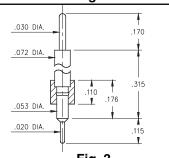
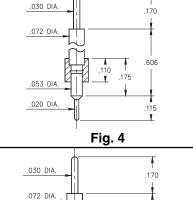


Fig. 3



.110

Fig. 5

Ordering Information

	Series 334020	.020 / .030 Solder Tails	
Fig. 1	334-XX-	100-020000	
•	Specify # of pins	→ 01-64	
	Series 334010	.020 / .030 Solder Tails	
Fig. 2	334-XX-	100-010000	
3. –	Specify # of pins	→ 01-64	
	Series 334050	.020 / .030 Solder Tails	
Fig. 3	334-XX-100-050000		
9. 0	Specify # of pins	01-64	
	Series 334000	.020 / .030 Solder Tails	
Fig. 4	334-XX-	100-000000	
9	Specify # of pins	▶ 01-64	
Fig. 5	Series 334100	.020 / .030 Solder Tails	
	334-XX-	100-100000	
9	Specify # of pins	□ 01-64	



XX=Plating Code See Below

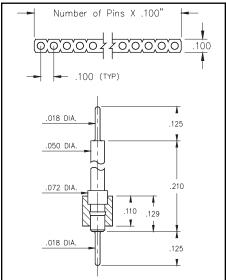
For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=	10♦	90	40♦	
Pin Plating —————	10μ" Au	200μ" Sn/Pb	200μ" Sn	

.020 DIA



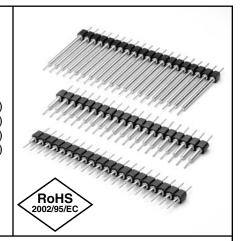
HEADER STRIPS .100" Grid Board Stacking Headers Single Row



 Series 342 Interconnect Header strips come in four heights with .018" dia. pluggable solder tails at both ends.

342...591 uses pin #4259-1 (L = .210") 342...592 uses pin #4259-2 (L = .335") 342...593 uses pin #4259-3 (L = .585") 342...594 uses pin #4259-4 (L = .835") See pages 179 for details.

• Insulators are high temp. thermoplastic.



Ordering Information

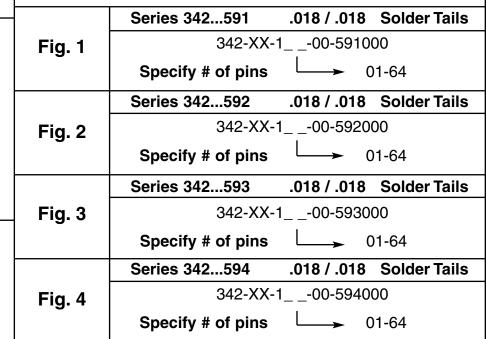
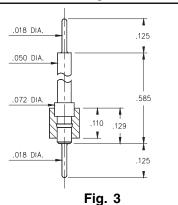
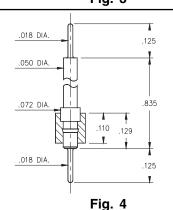
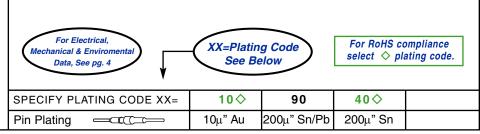


Fig. 2





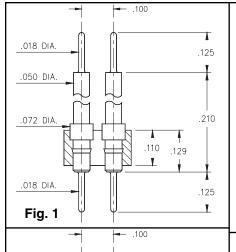




.018 DIA

.018 DIA.

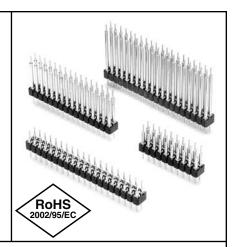
HEADER STRIPS .100" Grid Board Stacking Headers Double Row



 Series 442 Interconnect Header strips come in four heights with .018" dia. pluggable solder tails at both ends.

442...591 uses pin #4259-1 ($L = .210^\circ$) 442...592 uses pin #4259-2 ($L = .335^\circ$) 442...593 uses pin #4259-3 ($L = .585^\circ$) 442...594 uses pin #4259-4 ($L = .835^\circ$) See pages 179 for details.

• Insulators are high temp. thermoplastic.



.018 / .018 Interconnect

.018 / .018 Interconnect

.018 / .018 Interconnect

.018 / .018 Interconnect

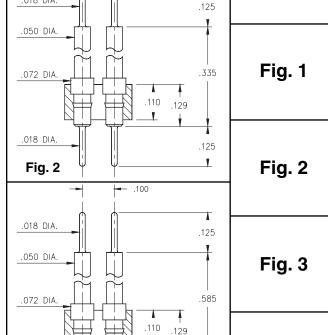
Ordering Information

Series 442...591

Series 442...592

Series 442...593

Series 442...594



.125

Fig. 1 442-XX-2_ _-00-591000
Specify # of pins 02-64

442-XX-2_ _-00-592000

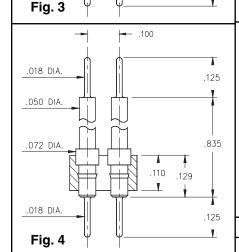
Specify # of pins 02-64

ig. 3 442-XX-2_ _-00-593000
Specify # of pins 02-64

Fig. 4

442-XX-2_ _-00-594000

Specify # of pins 02-64



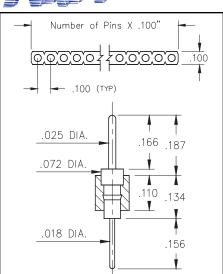
For Electrical,
Mechanical & Environmental
Data, See pg. 4

XX=Plating Code
See Below

For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=	10♦	90	40♦	
Pin Plating —————	10μ" Au	200μ" Sn/Pb	200μ" Sn	

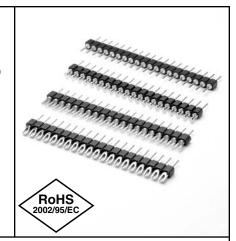
HEADER STRIPS .100" Grid Solder Tail **Single Row**



Series 350, 360, 370 & 380 single row Header strips come with various styles (pin, slotted head, turret and solder cup) with pluggable solder tails.

350...001 uses pin #0290 360...001 uses pin #0282 370...001 uses pin #0700 380...001 uses pin #8000 See pages 182 & 183 for details.

Insulators are high temp. thermoplastic.



Ordering Information

	Series 350001 .025 Pin / .018 Solder Tail
Fig. 1	350-XX-100-001000
1 .9	Specify # of pins → 01-64
	Series 360001 Slotted Head / Solder Tail
Fig. 2	360-XX-100-001000
1 .9	Specify # of pins 01-64
	Series 370001 Turret / Solder Tail
Fig. 3	370-XX-100-001000
	Specify # of pins 01-64
Fig. 4	Series 380001 Solder Cup / Solder Tail
	380-XX-100-001000
9-1	Specify # of pins 01-64

Fig. 1 .100 .126 .072 DIA .134 .018 DIA. .156 Fig. 2

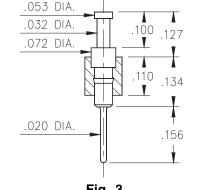
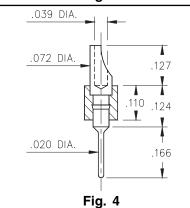
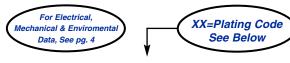


Fig. 3





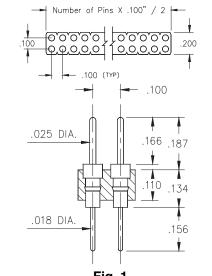
For RoHS compliance select \diamondsuit plating code.

SPECIFY PLATING CODE XX=	10♦	90	40♦	
Pin Plating ————	10μ" Au	200μ" Sn/Pb	200μ" Sn	

470, 480



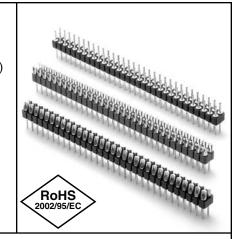




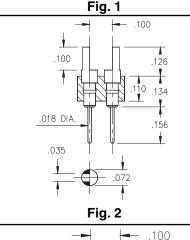
• Series 450, 460, 470 & 480 double row Header strips come with various styles (pin, slotted head, turret and solder cup) with pluggable solder tails.

450...001 uses pin #0290 460...001 uses pin #0282 470...001 uses pin #0700 480...001 uses pin #8000 See pages 182 & 183 for details.

· Insulators are high temp. thermoplastic.



Ordering Information



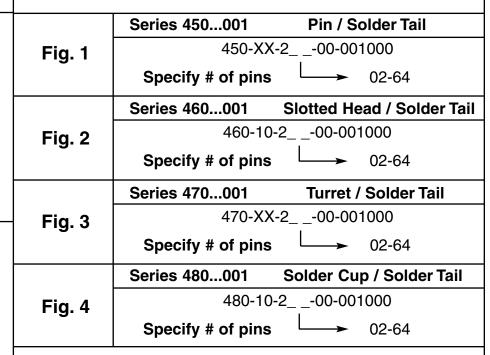
.100 .127

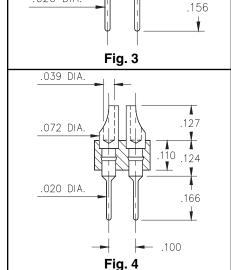
.134

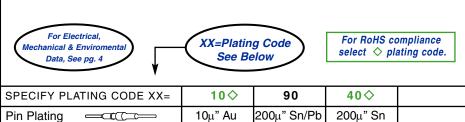
.053 DIA. .032 DIA.

.072 DIA

.020 DIA.

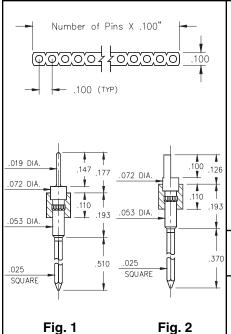






HEADER STRIPS .100" Grid Wrapost **Single Row**





.054 DIA. .126 .033 DIA.

.053 DIA.

.100 .127

.510

Fig. 6

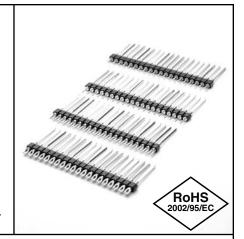
.110

• Series 353, 362, 363, 373, 382 & 383 single row Header strips come with various styles (pin, slotted head, turret and solder cup) with wrapost tails.

353...001 uses pin #5301 362...001 uses pin #1106-2 363...001 uses pin #1106-3 373...001 uses pin #0730-3 382...001 uses pin #8301-2 383...001 uses pin #8301-3

Insulators are high temp. thermoplastic.

See pages 194 & 195 for details.



Ordering Information

	Ordering Information	
	Series 353001 Pin / 3 Level Wrapost	
Fig. 1	353-XX-100-001000	
	Specify # of pins 01-64	
	Series 362001 Slotted Head / 2 Level Wrapos	t
Fig. 2	362-XX-100-001000	
3	Specify # of pins 01-64	
	Series 363001 Slotted Head / 3 Level Wrapos	t
Fig. 3	363-XX-100-001000	
3	Specify # of pins 01-64	
	Series 373001 Turret / 3 Level Wrapost	
Fig. 4	373-XX-100-001000	
1 191 1	Specify # of pins 01-64	
	Series 382001 Solder Cup / 2 Level Wrapos	t
Fig. 5	382-XX-100-001000	
9-	Specify # of pins → 01-64	
	Series 383001 Solder Cup / 3 Level Wrapos	t

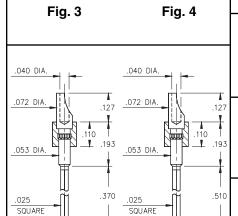


Fig. 5 Fig. 6

For Electrical, Mechanical & Enviromental Data, See pg. 4	XX=Platin See Bo		For RoHS co select \diamondsuit pla	
SPECIFY PLATING CODE XX=	10♦	90	40♦	
Pin Plating ————	10μ" Au	200μ" Sn/Pb	200μ" Sn	

Specify # of pins

383-XX-1_ _-00-001000

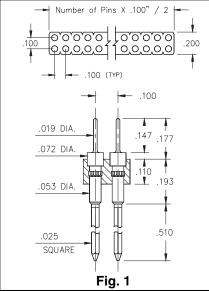
01-64

.053 DIA

SQUARE



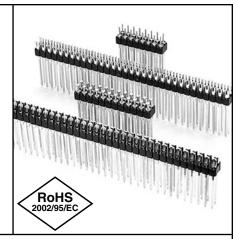
HEADER STRIPS .100" Grid Wrapost Double Row



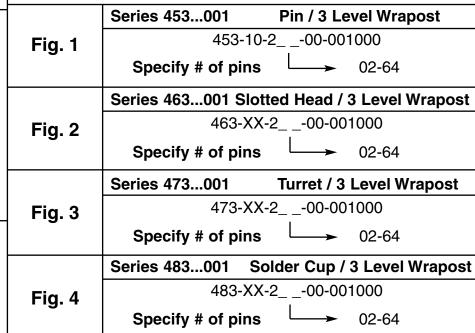
 Series 453, 463, 473, and 483 double row Header strips come with various styles (pin, slotted head, turret and solder cup) with wrapost tails.

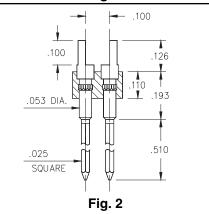
453...001 uses pin #5301 463...001 uses pin #1106-3 473...001 uses pin #0730-3 483...001 uses pin #8301-3 See pages 194 & 195 for details.

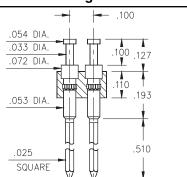
• Insulators are high temp. thermoplastic.



Ordering Information







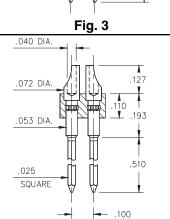
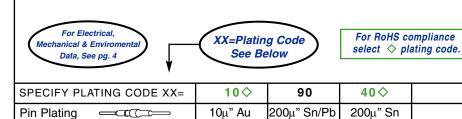


Fig. 4



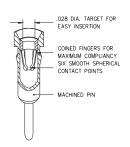


PIN GRID ARRAY SOCKETS Technical Specifications

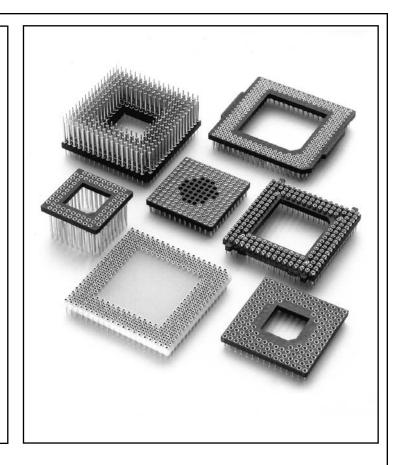
Pin grid array sockets are designed to accept high pin count IC's. They use low force 6-finger contacts to ease insertion/extraction of the device. Standard low force (M-M #32) contact is used for pin counts up to 150, ultra-low force (M-M #35) contact is recommended for 150 pins or more but less than 250 pins. The "ultra lite" (M-M #43) is recommended for 250 pins or more.

CONTACT DETAIL

PGA sockets all have precision-machined pins, this offers the lowest possible profile. The closed bottom design also eliminates flux and solder contamination, and the pins are in-line with contact entry.



Insulator bodies are molded from high temp. PCT polyester suitable for all forms of soldering including wave, infra-red reflow and vapor phase.



TECHNICAL SPECIFICATIONS

Materials

Insulator body:

High Temp. glass-filled thermoplastic polyester (PCT)
Heat deflection temperature (HDT @ 264 PSI) = 255°C(490°F)
Self-extinguishing, rated UL94V-0

Receptacle (Sleeve):

Screw machined brass (ASTM-B16-00), plated $10\mu^{"}$ gold, $200\mu^{"}$ tin or $200\mu^{"}$ tin-lead (SnPb 90/10) over $100\mu^{"}$ nickel.

Pin:

Screw machined brass (ASTM-B16-00), plated 10μ " gold, 200μ " tin or 200μ " tin-lead (SnPb 90/10) over 100μ " nickel.

Contact (clip):

Stamped beryllium-copper (ASTM-B194-01), plated 10μ " or 30μ " gold over 50μ " nickel.

Mechanical Data

-Insertion characteristics:

Measured with a polished steel gauge .018 diameter
Low force M-M#32 (01 suffix) typ. insertion force 50 grams
typ. extraction force 30 grams

Ultra-low force M-M#35 (02 suffix) typ. insertion force 25 grams typ. extraction force 15 grams

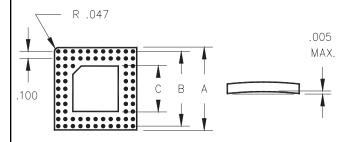
"Ultra lite" M-M#43 (03 suffix) typ. insertion force 12.5 grams typ. extraction force 7.5 grams

-Mechanical life: 100 cycles min.

Electrical & Environmental Data

-See general specifications on page 4.

DIMENSIONS OF PGA SOCKET INSULATORS



DIMENSIONS A, B, and C can be calculated as follows:

N1 = GRID SIZE (# of pins per side, outer most row only for interstitial patterns)

N2 = WINDOW SIZE

 $A = N1 \times .100$ "

 $B = (N1-1) \times .100$ "

 $\mathbf{C} = (N2 \times .100^{\circ}) - .016^{\circ}$



TECHNICAL SPECIFICATIONS FOR 540 SERIES PLCC SOCKETS

MATERIALS:

- Insulator: Glass filled thermoplastic, self-extinguishing rated, UL94V-0, color black.

- Contact: Plated copper alloy overall nickel underplating, tin finish.

MECHANICAL DATA:

- Contact pressure (per contact): 150 grams min.

- Mechanical data (cycles): 50 cycles min.

ELECTRICAL DATA:

- Rated current: SMD types: 1A Thru-hole types: 2A

- Contact resistance: 20 m Ω max. - Insulation resistance: 5,000 M Ω min. - Dielectric strength: 600 VRMS - Capacitance: 2pF max.

ENVIRONMENTAL DATA:

- Operating temperature: -55/+125 °C

- Vibration (No electrical discontinuity

greater than 1µs): 10-2000 HZ, 15 g

- Climactic category (EIA): 365-17A

TECHNICAL SPECIFICATIONS FOR 940 SERIES PLCC SOCKETS

MATERIALS:

- Insulator: PPS Polyphenylene Sulfide, Rated UL94V-0.

- Contact: Phosphor Bronze with a tin finish and nickel underplate.

MECHANICAL DATA:

- Contact pressure (per contact): 150 grams min.

- Mechanical data (cycles): 25 cycles min.

ELECTRICAL DATA:

- Rated current: SMD types: 1A Thru-hole types: 1A

- Contact resistance: 30 m Ω max. - Insulation resistance: 10,000 M Ω min. - Dielectric strength: 600 VAC - Capacitance: 1pF max.

ENVIRONMENTAL DATA:

- Operating temperature: -55/+105 °C

- Vibration (No electrical discontinuity

greater than 1µs): 10-2000 HZ, 15 g

- Climactic category (EIA): 365-17A

TECHNICAL SPECIFICATIONS FOR BGA ADAPTER SYSTEM

After climatic tests: 10,000 M Ω min.

Initial value: 1,000,000 M Ω min.

Materials: - Socket contact: Three finger, stamped beryllium

copper alloy 172, HT (Mill-Max type #04 or #05); plated 10µ" gold over 50µ" nickel.

- Socket shell and adapter pins: Precision machined brass alloy; plated 10µ" gold over 100µ" nickel.

- Insulator material: .047" or .062" thick glass-epoxy type FR-4, rated UL94V-0. TCE = 10-13ppm/°C, $\varepsilon_r = 5.0$

Mechanical:

- Insertion and withdrawal forces (using .010" dia. polished steel gage pin): Insertion: .36N typ. per pin Withdrawal: .20N typ. per pin

- Insertion force of an actual 225 pin device: 90N
- Durability: 100 cycles
- Coplanarity: <.005"

Electrical:

- Current rating (per pin): 1 A
- Working voltage: 100 VRMS/150 VDC max.
- Low level contact resistance: 10 m Ω max.
- Insulation resistance @ 500 VRMS:

- Dielectric withstanding voltage: 500 $V_{\mbox{RMS}}$
- Capacitance between adjacent contacts: 1 pF max.
- Self inductance per pin: 2 nH max.
- Electrical length: 31 pS

Environmental:

- Operating temperature range: -55 °C to +125 °C BGA adapter/socket systems have withstood the following

environmental tests without mechanical or electrical failure:

- Damp heat, steady state: 40 °C, 93% rH, 21 days
- Damp heat, cyclic: 25/55 °C, 6 days
- Dry heat: 100°C, 1,000 hours
- Thermal shock: -55 to +125 °C, 5 cycles
- Random vibration: 50 to 500 Hz, 8g, 20 min. per axis
- Shock: 50 g per axis
- Solderability: 235 °C, 2 seconds
- Resistance to soldering heat: 270 °C, 10 seconds
- Resistance to corrosion:

Salt spray: 48 hours

113

Sulphur dioxide: 96 hours @ 25 ppm SO₂, 25 °C, 75% rH Hydrogen sulphide: 96 hours @ 12 ppm H₂S, 25°C, 75% rH

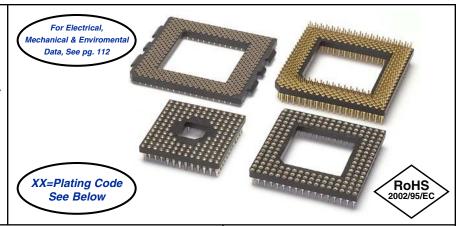


PIN GRID ARRAY SOCKETS .100" and Interstitial Grid **Surface Mount and Through Hole**

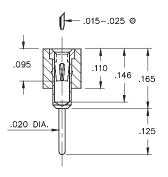
Series 510, 511, 513, 514, 515, 518, 522, 523

- Series 510, 511, 514, 515, 522 & 523 PGA sockets are available on .100" centers.
- Series 513 and 518 PGA sockets are available for Interstitial patterns.
- Choice of three low force clips to cover all applications.
- Hi-Temp PCT polyester insulator material suitable for all forms of soldering.

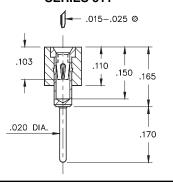
For RoHS compliance select \diamondsuit plating code.



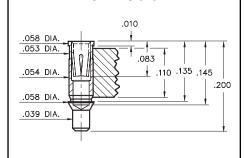
STANDARD SOLDER TAIL **SERIES 510**



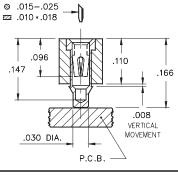
LONG SOLDER TAIL SERIES 511



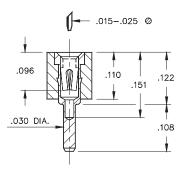
SMT RECEPTACLE SERIES 513



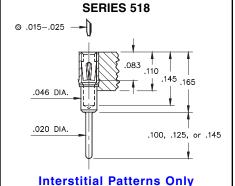
SMT RECEPTACLE SERIES 514



LOW PROFILE SOLDER TAIL **SERIES 515**

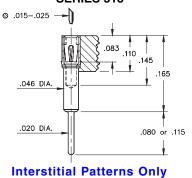


Interstitial Patterns Only SOLDER TAIL (Without Heatsink Tabs)



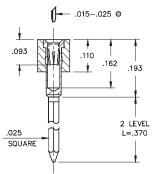
3 LEVEL WRAPOST

SOLDER TAIL (With Heatsink Tabs) SERIES 518

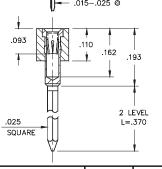


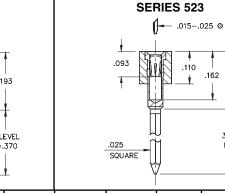
Visit www.mill-max.com/pga To configure a formal Part Number

2 LEVEL WRAPOST



SERIES 522





SPECIFY PLATING CODE XX=	13♦	93		43♦	
Sleeve (Pin)	10µ" Au	200μ" Sn/Pb		200µ"Sn	
Contact (Clip)	30µ" Au	30μ" Au		30µ" Au	

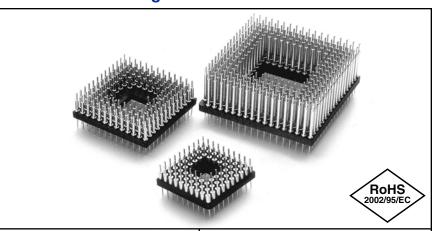
3 LEVEL

I = .510

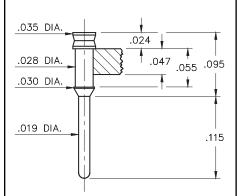
• Series 551 and 599 headers are available on .100" centers.

Series 507 & 550 PGA sockets are available for Interstitial patterns.

 Hi-Temp PCT polyester insulator material suitable for all forms of soldering.

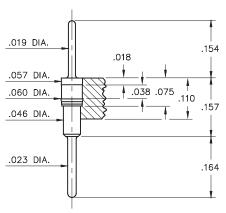


SMT HEADER PIN TYPE 0737 SERIES 507



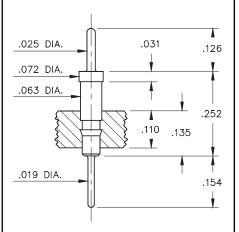
Interstitial Patterns Only

HEADER PIN TYPE 5012 SERIES 550

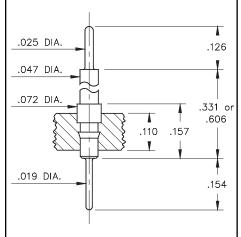


Interstitial Patterns Only

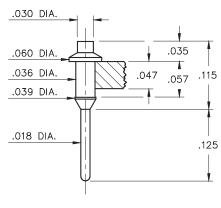
HEADER PIN TYPE 5503 SERIES 551



HEADER PIN TYPE 5504 & 5505 SERIES 551



SMT HEADER PIN TYPE 9976 SERIES 599



For Electrical,
Mechanical & Environmental
Data, See pg. 112

XX=Plating Code See Below

For RoHS compliance select \diamondsuit plating code.

Visit www.mill-max.com/pga To configure a formal Part Number
 SPECIFY PLATING CODE XX=
 10 φ
 90
 40 φ

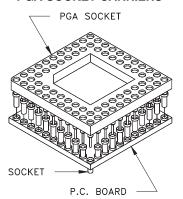
 Pin Plating
 10μ" Au
 200μ" Sn/Pb
 200μ" Sn

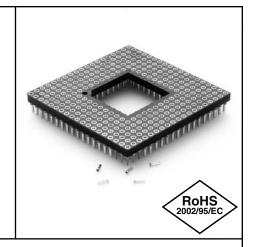


PIN GRID ARRAY SOCKETS .100" and Interstitial Grid Carrier Type

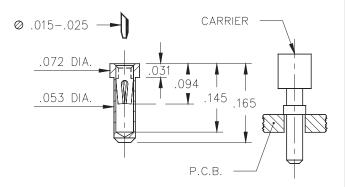
- Series 614 & 605 PGA carrier sockets offer 4 receptacle styles.
- Many combinations of receptacles and clips to cover all applications.
- Hi-Temp PCT polyester insulator material suitable for all forms of soldering.
- Carrier sockets provide a convenient way of loading groups of receptacles onto a PC board.

APPLICATION OF PGA SOCKET CARRIERS



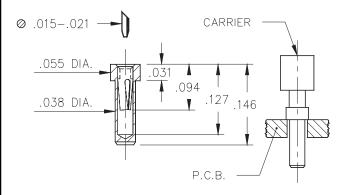


LOW PROFILE SOCKET SERIES 614...001, 002, 003

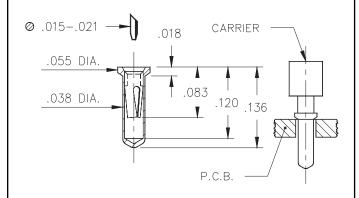


For .100" Grid Only

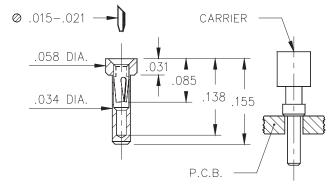
MINIATURE SOCKET SERIES 614...007



LOWEST PROFILE SOCKET SERIES 614...012



REDUCED BARREL SOCKET SERIES 605...048





XX=Plating Code See Below

For RoHS compliance select \diamondsuit plating code.

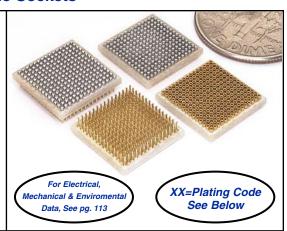
Visit www.mill-max.com/pgacarrier To configure a formal Part Number

SPECIFY PLATING CODE XX=	13♦	93		43♦	
Sleeve (Pin)	10µ" Au	200µ" Sr	Pb	200µ"Sn	
Contact (Clip)	30µ" Au	30μ" <i>Α</i>	1	30µ" Au	

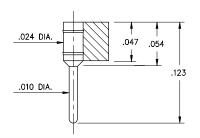


BALL GRID ARRAYS Series 540, 579, 582, 587, 599 For 0,8mm Grid, 1mm Grid and .050"Grid **Male Pin Adapters & Female Sockets**

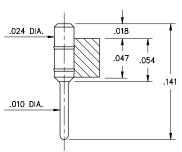
- BGA adapter/socket systems are a reliable way to make BGAs pluggable. They may also be used as a high density board-to-board interconnect.
- The BGA device for a 0,8mm or 1mm grid is soldered to a 9929 adapter (or a 7929 adapter is soldered to a PCB), then either one can be plugged into a 9942 (0.8mm grid) or 9928 (1mm grid) surface mount socket.
- The BGA device for a .050" grid is soldered to a 8737/4048 adapter (or a 4098/4054 adapter is soldered to a PCB), then either one can be plugged into a 8214 surface mount socket.
- Both socket and adapter have the same footprint as the BGA device.
- Insertion force is .4N per pin for standard pins 7929/9929, 8737/4098. Tapered EZ-IN pins 4048/4054 reduce insertion force to only .08N, and are recommended for pin counts greater than 500.
- Insulator material is FR-4 epoxy having a TCE to match the BGA device and circuit board.



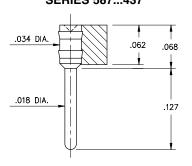




PCB MOUNT TYPE 7929 SERIES 579...429

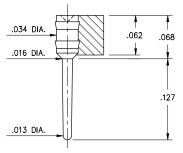


BGA MOUNT TYPE 8737 SERIES 587...437



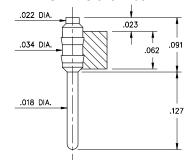
For 0,8mm & 1mm Grid Only

EZ-IN BGA MOUNT TYPE 4048 SERIES 540...448

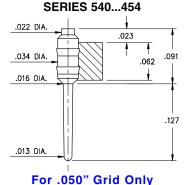


STANDARD PCB MOUNT TYPE 4098 SERIES 540...498

For 0,8mm & 1mm Grid Only

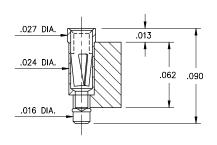


For .050" Grid Only **EZ-IN PCB MOUNT TYPE 4054**



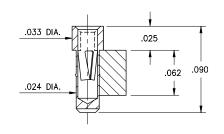
For .050" Grid Only

SURFACE MOUNT TYPE 9942 SERIES 599...442

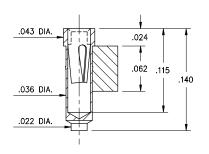


SURFACE MOUNT TYPE 9928 SERIES 599...428

For .050" Grid Only



SURFACE MOUNT TYPE 8214 SERIES 582...414



For .050" Grid Only

For 0,8mm Grid Only

Visit www.mill-max.com/bga To configure a formal Part Number

For 1mm Grid Only

SPECIFY PLATING CODE XX=	11♦	PLATING COL	DE XX=
Sleeve (Receptacle)	⊃ 10μ" Au	Pin Plating	
Contact (Internal Clip)	10μ" Au		

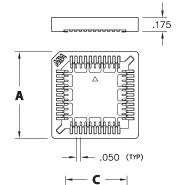
10 ♦

10µ" Au



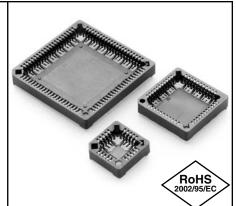
.030

STANDARD PLCC SOCKETS **Surface Mount**



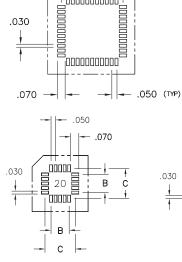
_000000000000

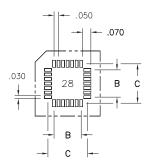
- Note: Not end stackable.
- Accepts JEDEC PLCCs MO-047 and MO-052.
- Low profile for high density PC board stacking.
- Standoffs provide clearance for heat dissipation and cleaning.
- Contacts are plated with 150μ" tin.
- Insulator material is glass reinforced PPS.

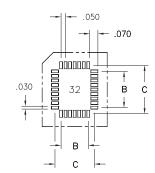


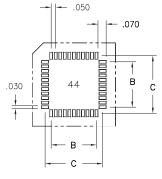
For Electrical, Mechanical & Enviromenta Data, See pg. 113

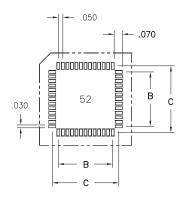
PCB LAYOUT FOR SURFACE MOUNT

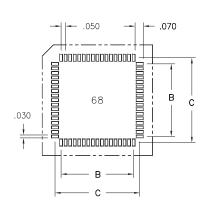


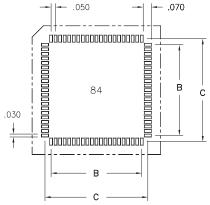










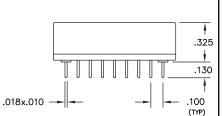


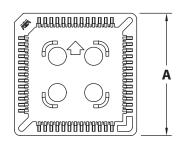
RECTANGULAR

No. of Contacts	Ordering Information	- A -	- B -	- C -	Qty. Tube	per Reel
20	940-44-020-17-40000X	0.613	0.200	0.334	32	470
28	940-44-028-17-40000X	0.713	0.300	0.434	27	390
32*	940-44-032-17-40000X*	.813 / .713	.400 / .300	.534 / .434	24	390
44	940-44-044-17-40000X	0.900	0.500	0.634	21	250
52	940-44-052-17-40000X	1.013	0.600	0.734	19	250
68	940-44-068-17-40000X	1.213	0.800	0.934	16	220
84	940-44-084-17-40000X Packaging Codes: X = 0 (Tubes) X = 4 (Tape & Reel)	1.413	1.000	1.134	14	200



STANDARD PLCC SOCKETS Through Board Mount





- Note: Not end stackable.
- Accepts JEDEC PLCCs MS-016 & MS-018 leaded plastic substrates.
- Internal standoffs insure proper positioning of chip carrier in socket.
- Standoffs provide clearance for heat dissipation and cleaning.
- Contacts are plated with 150 μ " tin.
- Insulator material is glass reinforced PPS.

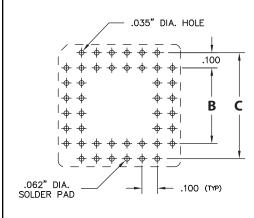


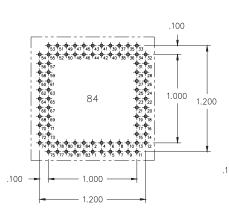
PRINTED CIRCUIT DRILLING PATTERNS

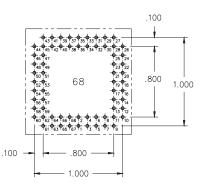
(TOP VIEW)

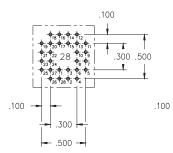
.035" dia. min. mounting holes

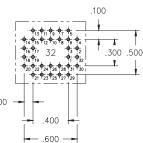


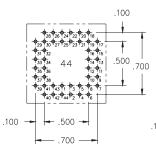


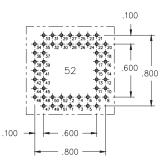












No. of Contacts	Ordering Information	- A -	- B -	- C -	Quantity per Tube
20	940-44-020-24-000000	0.613	0.200	0.400	38
28	940-44-028-24-000000	0.713	0.300	0.500	33
32*	940-44-032-24-000000*	.813 / .713	.400 / .300	.600 / .500	29
44	940-44-044-24-000000	0.913	0.500	0.700	26
52	940-44-052-24-000000	1.013	0.600	0.800	23
68	940-44-068-24-000000	1.213	0.800	1.000	19
84	940-44-084-24-000000	1.413	1.000	1.200	16
100	940- <u>44</u> -100-24-00000	1.603	1.200	1.400	25
	Plating Code 44 \diamondsuit = 150 μ " Sn *RECTANGULAR				

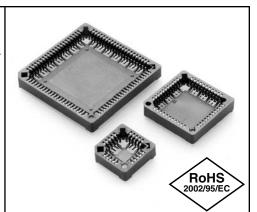


Α2

.051

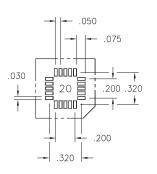
COMPACT PLCC SOCKETS Surface Mount

- Note: End stackable.
- Designed for JEDEC type devices.
- Open frame design in solder area improves results of IR soldering and facilitates visual inspection of solder pads.
- Contacts are plated with 150μ" tin.
- The insulator is molded PPS (Ryton R-4).



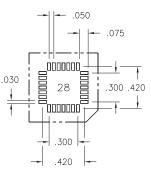
PCB LAYOUT FOR SURFACE MOUNT



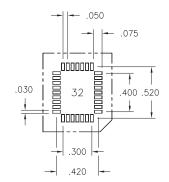


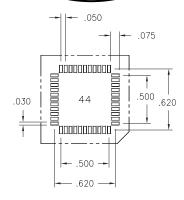
.050 —

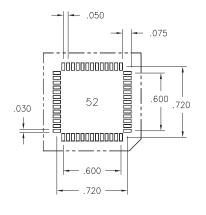
C1

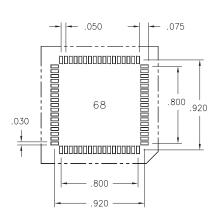


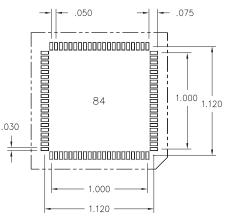
C2











* RECTANGULAR

No. of Contacts	Ordering Information	- A1 -	- A2 -	- C1 -	- C2 -	- E -	- H -	Qty. per Tube	Tape Width mm	Qty. per Reel
20	540-44-020-17-40000X	0.200	0.200	0.585	0.585	0.657	0.180	34	24	490
28	540-44-028-17-40000X	0.300	0.300	0.685	0.685	0.799	0.180	29	32	400
32*	540-44-032-17-40000X*	0.300	0.400	0.670	0.770	0.885	0.148	26	32	400
44	540-44-044-17-40000X	0.500	0.500	0.885	0.885	1.082	0.180	22	44	250
52	540-44-052-17-40000X	0.600	0.600	1.000	1.000	1.224	0.180	20	44	250
68	540-44-068-17-40000X	0.800	0.800	1.202	1.202	1.507	0.180	16	44	220
84	540-44-084-17-40000 <u>X</u>	1.000	1.000	1.400	1.400	1.791	0.180	14	56	200
	Packaging Codes: $X = 0$ (Tubes) $X = 4$ (Tape & Reel)									



MISCELLANEOUS CONNECTORS Mini Universal Serial Bus Surface Mount Sockets

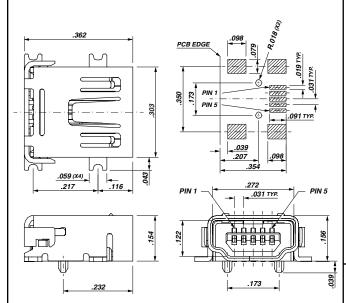


Fig. 1

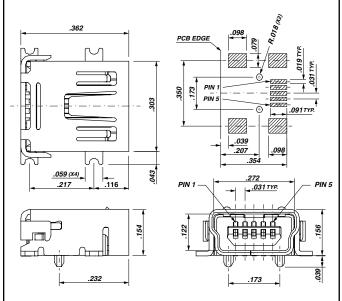
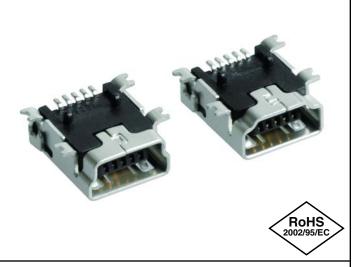


Fig. 2

Applications:

- Cell phones
- Digital still cameras
- Digital video cameras
- PDAs
- MP3 Players
- Other portable and hand-held devices



Features

- Mini USB receptacles for surface mount.
- 5 Pin (one ID Pin), 0.8mm pitch, mini USB connector.
- Reduced mounting space.
- · Fully Shielded.
- Fully compliant with current USB 2.0 specifications.
- Smaller and lighter than existing USB connectors for portable and handheld devices.
- Packaged on Tape & Reel 700 parts per reel.

Ordering Information:

Figure 1: Mini Type A Recep., Single, Surface Mount

896-43-005-00-100001

Figure 2: Mini Type B Recep., Single, Surface Mount

897-43-005-00-100001

Specifications

Materials:

Terminals: Copper Alloy, Tin Plated Contacts: Copper Alloy, 30 $\mu^{\text{\tiny{n}}}$ Gold Plated

Casing & Shield: Stainless Steel

Insulator material: High temp. thermoplastic rated UL94V-0

Ratings:

Voltage: 30VAC (rms)

Current: 1A max. per contact for 30°C temperature rise All housing materials rated for "lead-free" soldering up to 260°C

Electrical:

Contact resistance: $50m\Omega$ max. Insulation resistance: $100M\Omega$ min.

Dielectric withstanding voltage: 100VAC at sea level

Capacitance: 2pF max.

Mechanical:

Random vibration: No discontinuity >1 μ s per EIA 364-28, cond. V, letter A Physical shock: No discontinuity >1 μ s per EIA 364-27, condition H

Durability: 5000 cycles min. per EIA 364-09 Mating force: 35 Newtons max. per EIA 364-13

Unmating force: Initial - 7 Newtons min. per EIA 364-13

After test - 3 Newtons min. per EIA 364-13

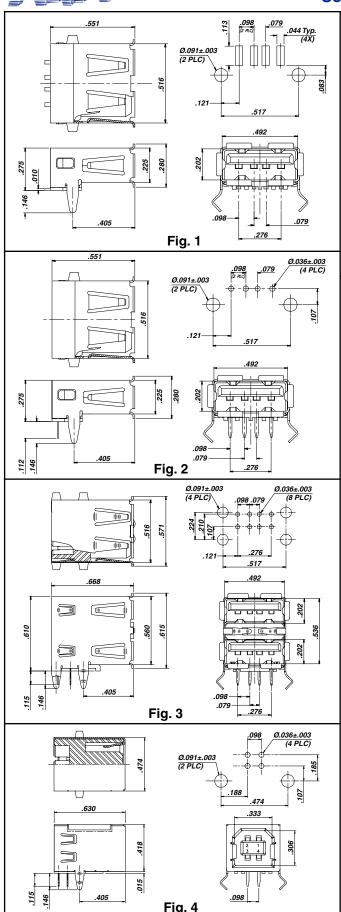
Cable Pull-out force per EIA 364-38

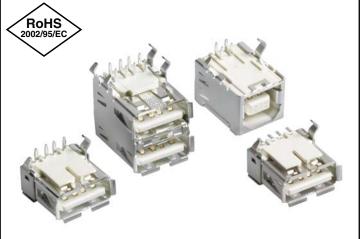
Environmental:

Thermal shock per EIA 364-32, condition I Humidity per EIA 364-31, method III, condition A Temperature life per EIA 364-17, condition 3, method A Solderability per EIA 364-52, category 2



MISCELLANEOUS CONNECTORS Universal Serial Bus Sockets





Features

- USB receptacles for through-hole & surface mount.
- Plug retention tabs.
- Kinked locating legs for secure PCB retention.
- Fully Shielded.
- Fully compatible with USB 1.0 & 2.0 specifications.
- Passes 16MHz Signal Attentuation per ASTM-D-4566.
- Packaged in trays, 150 pieces per tray.

Ordering Information

Figure 1: Type A Receptacle, Single, Surface Mount 896-43-004-00-000000

Figure 2: Type A Receptacle, Single, Through Hole 896-43-004-90-00000

Figure 3: Type A Receptacle, Double, Through Hole 896-43-008-90-000000

Figure 4: Type B Receptacle, Single, Through Hole 897-43-004-90-000000

Specifications

Materials:

Terminals: Copper Alloy, Tin Plated Contacts: Copper Alloy, 30 µ" Gold Plated Casing & Shield: Stainless Steel

Insulator material: High temp. thermoplastic rated UL94V-0

Ratings:

Current: 1A max. per contact for 30°C temperature rise All housing materials rated for "lead-free" soldering up to 260°C

Electrical:

Contact resistance: 30mΩ max. Insulation resistance: $1000M\Omega$ min.

Dielectric withstanding voltage: 750VAC at sea level

Capacitance: 2pF max.

Mechanical:

Random vibration: No discontinuity >1 μ s per EIA 364-28, cond. V, letter A Physical shock: No discontinuity >1µs per EIA 364-27, condition H Durability: 1500 cycles min. per EIA 364-09

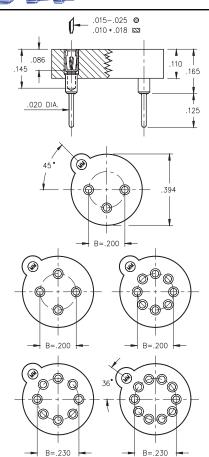
Mating force: 35 Newtons max. per EIA 364-13 Unmating force: 10 Newtons min. per EIA 364-13

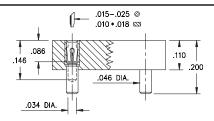
Environmental:

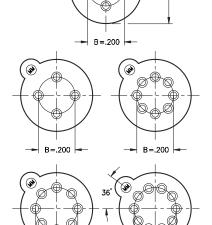
Thermal shock per EIA 364-32, condition I Humidity per EIA 364-31, method II, condition A Temperature life per EIA 364-17, condition 3, method A



TRANSISTOR SOCKETS **Surface Mount & Through-Hole Mount**

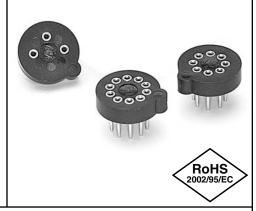






B=.230

- Series 917 TO package sockets are available in 3, 4, 8 and 10 positions.
- Two 8 pin versions feature pin centers on .200" or .230" circle.
- Series 917_005 use MM #1802 pins, see page 140 for details. Receptacles use Hi-Rel, 4 finger #30 contact rated at 3 amps. See page 218 for details.
- Series 917_001 use MM #1701 pins, see page 140 for details. Receptacles use Hi-Rel, 4 finger #30 contact rated at 3 amps. See page 218 for details.
- Insulators are high temp. thermoplastic.



Ordering Information

Transistor Sockets (Through-Hole Mount)

Туре	Circle Dia.	No. of Pins	Ordering Information
TO-5	0.200	3	917-XX-103-41-005000
TO-5	0.200	4	917-XX-104-41-005000
TO-5	0.200	8	917-XX-108-41-005000
TO-100	0.230	8	917-XX-208-41-005000
TO-100	0.230	10	917-XX-210-41-005000

Transistor Sockets (Surface Mount)

Туре	Circle Dia.	No. of Pins	Ordering Information
TO-5	0.200	3	917-43-103-41-001000
TO-5	0.200	4	917-43-104-41-001000
TO-5	0.200	8	917-43-108-41-001000
TO-100	0.230	8	917-43-208-41-001000
TO-100	0.230	10	917-43-210-41-001000

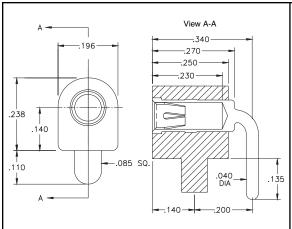
For RoHS compliance XX=Plating Code Mechanical & Environmental select \diamondsuit plating code. See Below Data, See pg. 4 SPECIFY PLATING CODE XX= 93 43 ♦ Sleeve (Pin) 200µ" Sn/Pb 200µ"Sn 30 µ" Au 30 μ" Au Contact (Clip)

B = .230

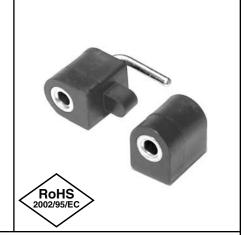
For Electrical,



MISCELLANEOUS SOCKETS Right Angle Socket Test Point

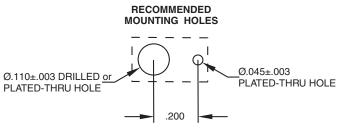


- Available to accept 3 pin sizes: 1, 1.5, & 2mm.
- Uses Hi-Temp PCT polyester insulator.
- Standard Insulator color is black.



Pin Size	Ordering Information
1.0mm	395-XX-101-34-34X000
1.5mm	395-XX-101-03-38X000
2.0mm	395-XX-101-07-35X000
2.011111	395-88-101-07-358000

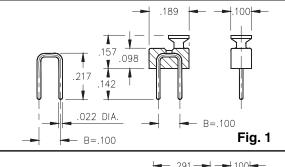
Insulator Color Options X= 0 - Black

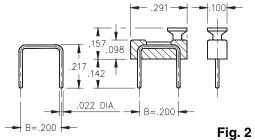


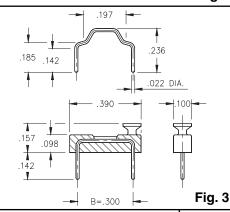




MISCELLANEOUS CONNECTORS Male Shorting Jumpers & Microphone Sockets

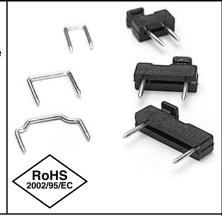






- Male shorting jumpers are available with or without insulator and have .022" diameter pins with .100", .200" or .300" center spacing.
- Insulator materials are not high temperature.

For Electrical,
Mechanical & Enviromental
Data, See pg. 4



Ordering Information

	Male Shorting	Jumper .100" Spacing			
Fig. 1	Color / Style	Plating 10μ" Au ♦			
	Black	999-11-210-10-000000			
	Not Insulated	999-11-110-10-000000			
	Male Shorting	Jumper .200" Spacing			
Fig. 2	Color / Style	Plating 10μ" Au ♦			
	Black	999-11-220-10-000000			
	Not Insulated	999-11-112-10-000000			
	Male Shorting Jumper .300" Spacing				
Fig. 3	Color / Style	Plating 10μ" Au ♦			
	Black	999-11-230-10-000000			
	Not Insulated	999-11-113-10-000000			

Series 388 microphone socket is a bottom entry socket for microphones having Ø.018" pins on .075" centers.
 Designed to be surface mount and

.024

.030 I

.026

.115

- Designed to be surface mount and intrusive reflow soldered.
- Insulator is high temp. Nylon 46, rated UL 94 V-0.
- Series 388 use MM #8874 pins. See page 130 for details.



Microphone Socket

Ordering Information

XX=Plating Code See Below 388-XX-102-11-740800 (Discrete socket)

Plating Code

388-XX-102-11-740799

(Supplied on 12mm wide carrier tape per EIA-481: 6,500 per 13" reel)

SPECIFY PLATING CODE XX=		99		44♦
Sleeve (Pin)		200µ"Sn/Pb		200µ"Sn
Contact (Clip)		200µ"Sn/Pb		200µ"Sn

.060 DIA. ± .003 PTH

.200

.075

.047 DIA

.055 DIA

.067

PCB FOOTPRINT





THE BASIC RECEPTACLE

The basic conducting element used in printed circuit board (PCB) connections is the pin receptacle. The Mill-Max pin receptacle is typically used to make devices on the PC board pluggable while maintaining a low profile, or as the contact in a cable assembly. The machined shell or housing of pin receptacles is available in various styles depending on the application. The terminal end of pin receptacles has many variations: a round solder tail, a press-fit tail, a surface mount tail, crimp tail, solder-cup tail, swage tail or no tail.

Inside every Mill-Max receptacle is a contact clip. A contact clip is a conductive, multi-finger, progressive-die stamping that engages, scores and holds the mated pin, making an electrical and gas-tight connection at 3, 4 or 6 points of contact (depending upon the selected contact).

Mill-Max currently offers 34 styles of contacts to engage pins from .008" to .102" in diameter. A convenient contact selector chart is located on page 214 showing the different specifications of each contact.



Pin receptacles can be utilized as discrete connectors for the plugging and unplugging of components on pc boards. They can be utilized individually or in random arrays where the usage is small. They can be handled and loaded manually in preparation for soldering or, with a different style shell, for press-fitting. When a customer requires volume placement of Mill-Max receptacles, socket carriers or tape and reel packaging are tremendous labor-saving solutions for our customer.

In addition to the products found on the following pages, Mill-Max offers the following stock materials and diameters available for manufacture:

BRASS Alloy 360, 1/2 hard: .062/.072/.078/.093/.125/.156/.187/.250 diameters

BRASS Alloy 360, 1/4 hard: .072/.078 diameters

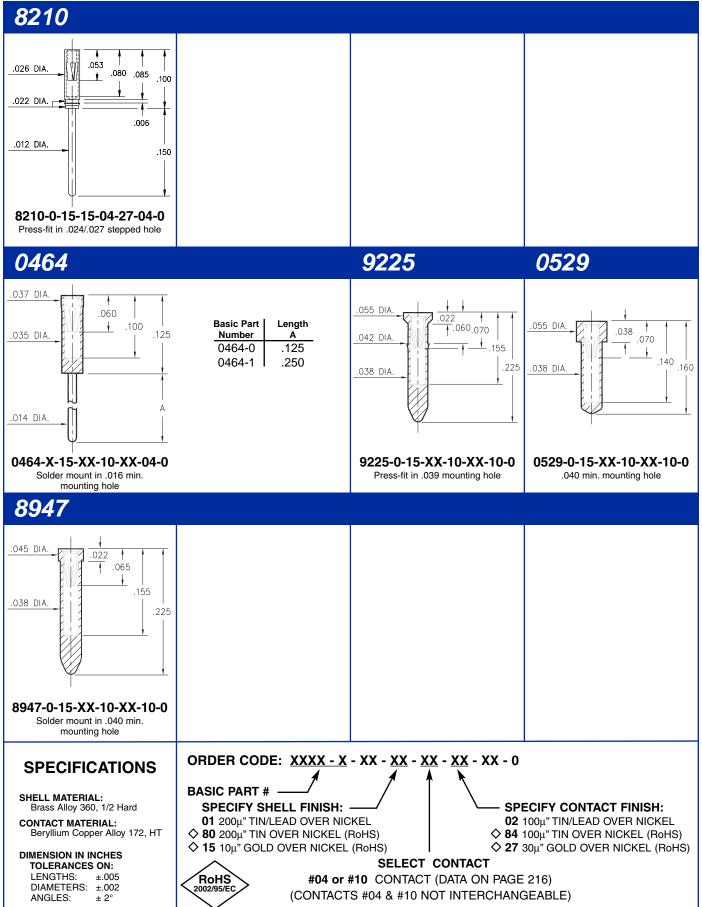
BRASS TUBING: .072 O.D.x.020 I.D./ .072 O.D.x.025 I.D. PHOSPHOR BRONZE Alloy 544 .062/.072/.078 diameters TELLURIUM COPPER Alloy 145 .079/.093/.125/.156 diameters

Mill-Max will gladly quote application specific products. Please complete the specification sheet on page 213 or send us your own drawings. We assure you of a fast response.



for .008" - .013" diameter pins (#04 contact) and .012" - .017" diameter pins (#10 contact) (see specific contact range on page 216)

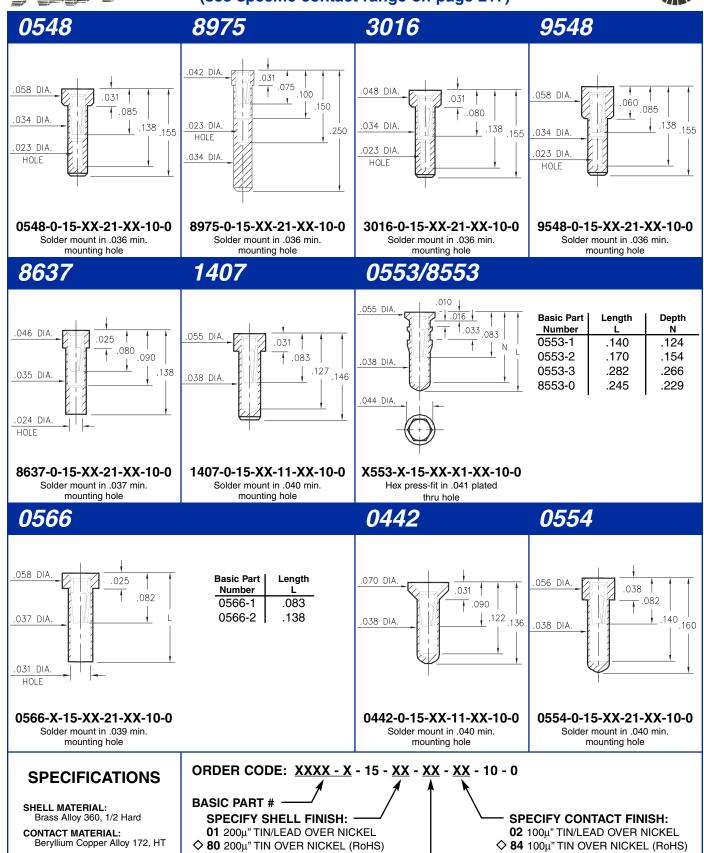






for .015" - .020" diameter pins (#11 contact) and .015" - .022" diameter pins (#21 contact) (see specific contact range on page 217)





±.005

DIMENSION IN INCHES TOLERANCES ON: LENGTHS:

DIAMETERS: ±.002

ANGLES:

SELECT CONTACT

#11 or #21 CONTACT (DATA ON PAGE 217)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

RoHS

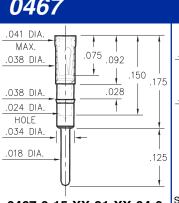
♦ 27 30µ" GOLD OVER NICKEL (RoHS)



for .015" - .018" diameter pins (#09 contact) for .015" - .020" diameter pins (#11 contact) and .015" - .022" diameter pins (#21 contact) (see specific contact range on pages 216 & 217)







.055 DIA. .018 .083 .038 DIA Ν

Basic Part Number	Length L	Depth N
0552-1	.136	.120
0552-2	.170	.150

.016 .056 DIA .059 .038 DIA .170 .031 DIA. HOLE

5522-0-15-XX-09-XX-10-0 Solder mount in .040 min. mounting hole

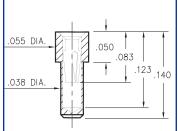
0467-0-15-XX-21-XX-04-0 Press-fit in .037 mounting hole

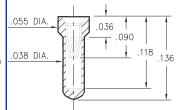
0552-X-15-XX-X1-XX-10-0 Solder mount in .040 min. mounting hole Also available on 16mm wide carrier tape: 1,500 parts per 13" reel. Order as: 0552-X-57-XX-X1-XX-10-0

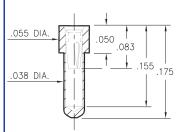
6214

2086

5522







.041 DIA MAX. .062 .076 .043 DIA .160 .175 .039 DIA .180 .018 DIA.

0569-0-15-XX-X1-XX-10-0 Solder mount in .040 min

mounting hole

6023-0-15-XX-21-XX-10-0

Solder mount in .040 min mounting hole

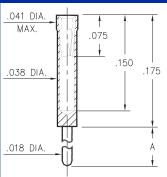
6214-0-15-XX-21-XX-10-0

Solder mount in .040 min mounting hole

2086-0-15-XX-21-XX-04-0 Press-fit in .040 mounting hole

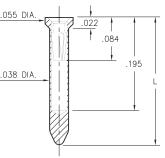
0461

0569



Basic Part Number	Length A
0461-0	.400
0461-1	.275
0461-2	.180
0461-3	.125
0461-4	.060
0461-5	.440

.022 084



Basic Part Length Number 8579-0 .234 8579-1 .295

0461-X-15-XX-X1-XX-04-0

Solder mount in .020 min. mounting hole

8579-0-15-XX-X1-XX-10-0

Solder mount in .040 min mounting hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 15 - XX - XX - XX - XX - 0

BASIC PART #

SPECIFY SHELL FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200μ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)



SPECIFY CONTACT FINISH:

- 02 100μ" TIN/LEAD OVER NICKEL
- ♦ 84 100µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30µ" GOLD OVER NICKEL (RoHS)



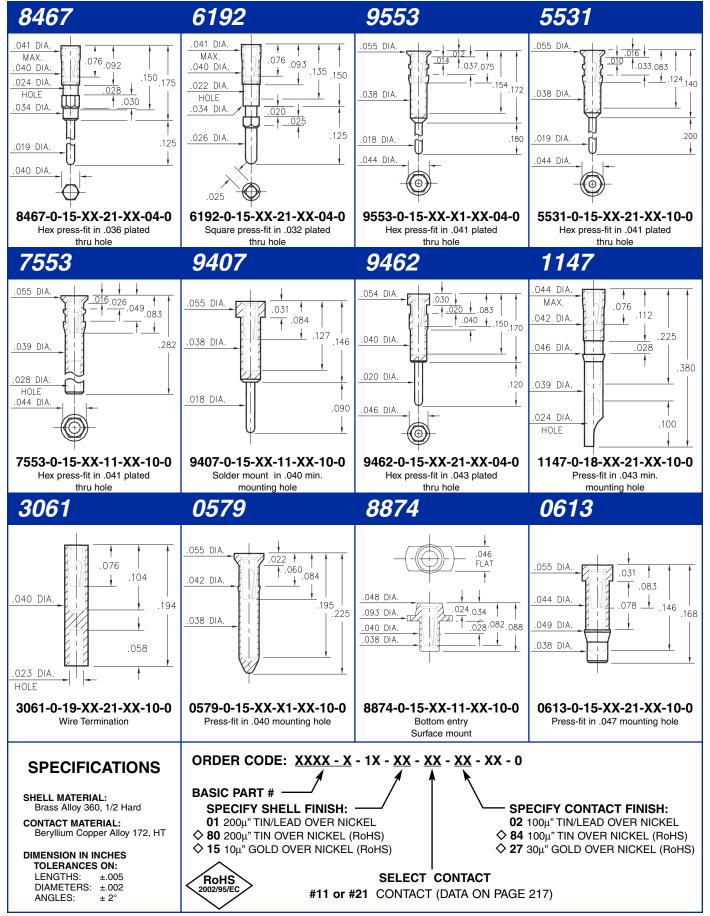
SELECT CONTACT

#09, #11 or #21 CONTACT (DATA ON PAGE 217)



for .015" - .020" diameter pins (#11 contact) and .015" - .022" diameter pins (#21 contact) (see specific contact range on page 217)

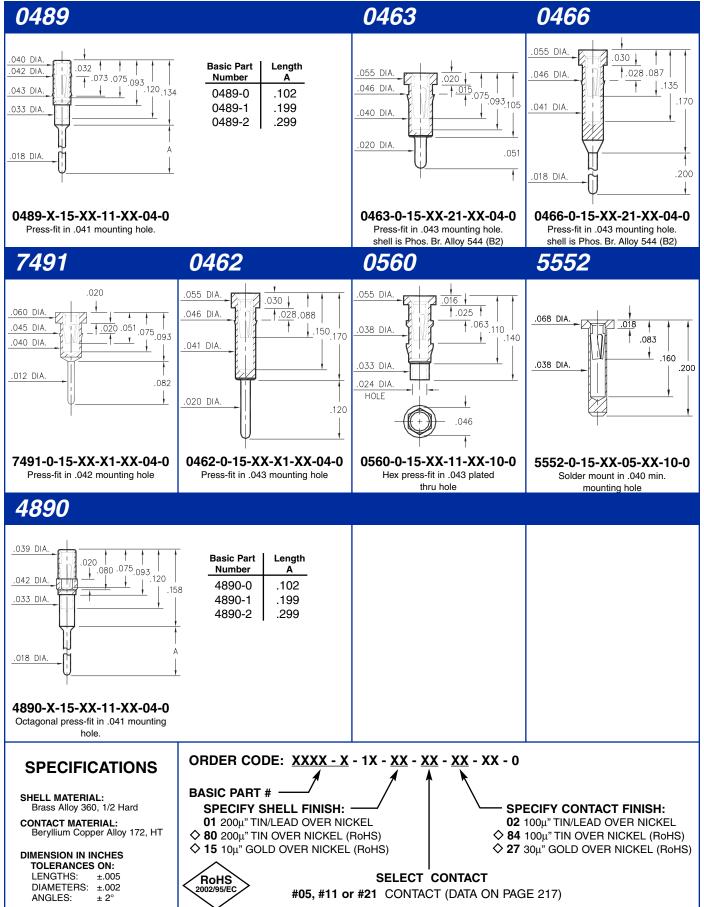






for .015" - .020" diameter pins (#11 contact) and .015" - .022" diameter pins (#05 & #21 contacts) (see specific contact range on page 217)

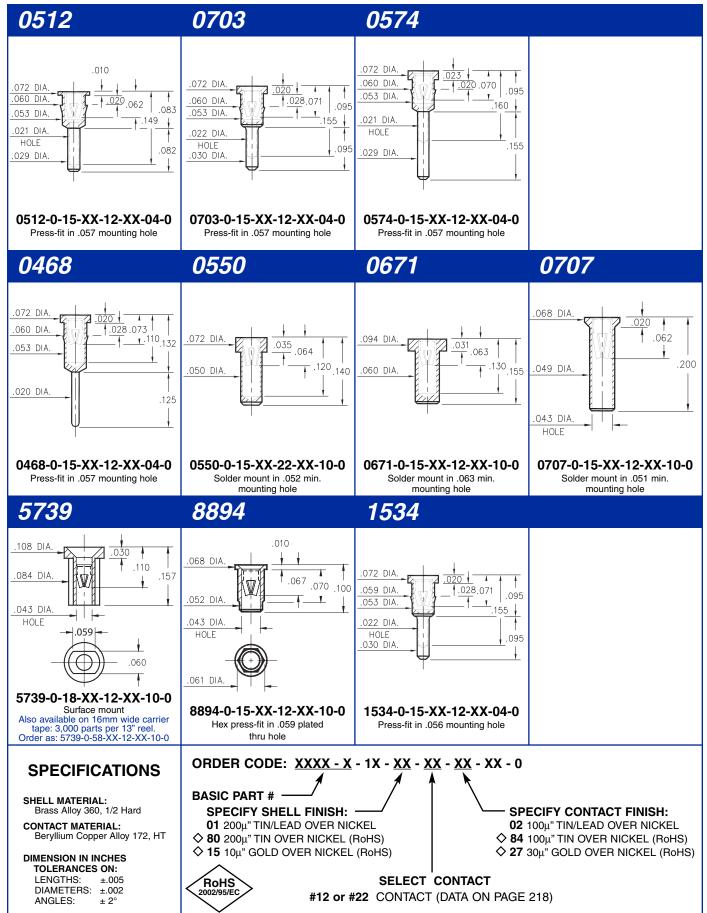






PIN RECEPTACLES for .015" - .022" diameter pins

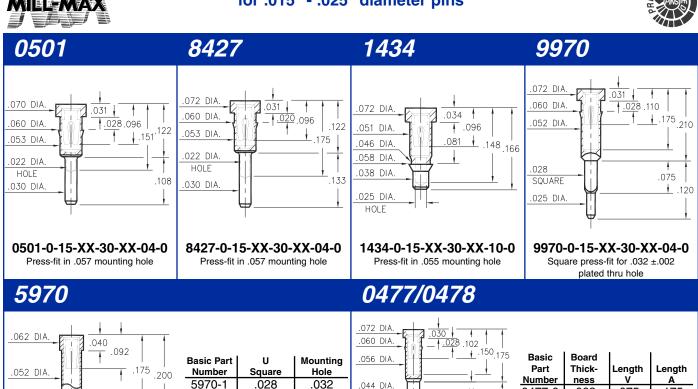






PIN RECEPTACLES for .015" - .025" diameter pins





5970-X-15-XX-32-XX-04-0

SQUARE

.025 DIA.

.075

.120

Square press-fit for .032 or .039 ±.002 plated thru hole

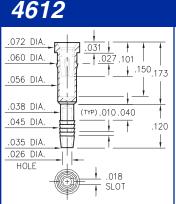
.044 DIA .036 DIA .025 DIA

Basic Part Number	Board Thick- ness	Length V	Length A
0477-0	.062	.075	.175
0478-0	.125	.140	.250

047X-0-18-XX-30-XX-04-0

0680

Solderless press-fit in .038 +.003 / -.002 plated thru hole (use 1.1mm drill prior to plating)



4612-0-31-XX-30-XX-04-0 Compliant press-fit in .040 ±.003 plated hole. For $.060 \rightarrow .100$ thick board

072 DIA. .060 DIA. .027 .101 1.150.173 .056 DIA .038 DIA .050 .045 DIA .175 .035 DIA. .026 DIA .010 (TYP) HOLE .018 SLOT

.034

.039

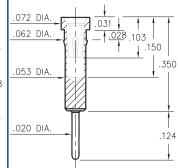
5970-2

4613

4613-0-31-XX-30-XX-04-0 Compliant press-fit in .040 ±.003 plated hole. For $.090 \rightarrow .130$ thick board

.068 DIA .083 .120 .138 .049 DIA

0680-0-15-XX-32-XX-10-0 Solder mount in .051 min. mounting hole



0149

0149-0-15-XX-30-XX-04-0 Press-fit in .059 mounting hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - XX - XX - XX - XX - XX - 0

BASIC PART # **SPECIFY SHELL FINISH:**

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200μ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

RoHS

SPECIFY CONTACT FINISH:

- 02 100μ" TIN/LEAD OVER NICKEL
- ♦ 84 100µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30µ" GOLD OVER NICKEL (RoHS)

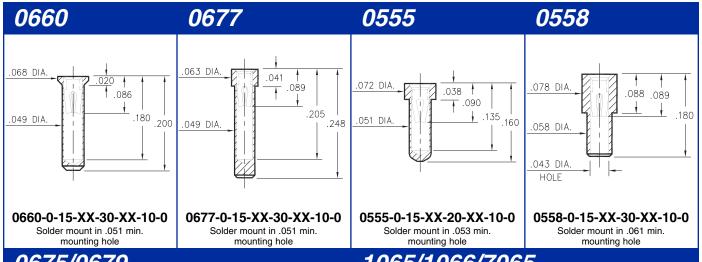
SELECT CONTACT

#30 or #32 CONTACT (DATA ON PAGES 218 & 219)



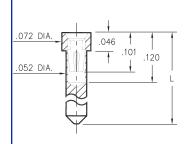
PIN RECEPTACLES for .015" - .025" diameter pins





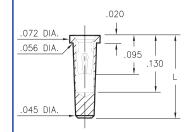
0675/0679

1065/1066/7065



Basic Part	Length
Number	L
0675-0	.145
0679-0	.203

0667



Basic Part	Length
Number	L
1065-0	.190
1066-0	.160
7065-0	.181

067X-0-15-XX-30-XX-10-0

Solder mount in .054 min. mounting hole

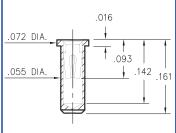
กลรว

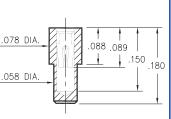
X06X-0-15-XX-30-XX-10-0

0665

Solder mount in .055 min. mounting hole

0002	
.017 .072 DIA088 .084 .147 .166	<u>).</u>





.070 DIA. .018 | .010 | .080 | .163 | .050 DIA. .058 DIA.

4286

0682-0-15-XX-32-XX-10-0

Solder mount in .056 min. mounting hole

0667-0-15-XX-30-XX-10-0

Solder mount in .057 min. mounting hole

0665-0-15-XX-30-XX-10-0

Solder mount in .061 min. mounting hole

4286-0-15-XX-30-XX-10-0

Hex press-fit in .055 plated thru hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ±.002°

ORDER CODE: XXXX - X - 15 - XX - XX - XX - 10 - 0 BASIC PART

SPECIFY SHELL FINISH: 01 200μ" TIN/LEAD OVER NICKEL \$ 80 200μ" TIN OVER NICKEL (RoHS) \$ 15 10μ" GOLD OVER NICKEL (RoHS)

- SPECIFY CONTACT FINISH:

- $\boldsymbol{02}$ 100 $\!\mu^{\!\scriptscriptstyle 0}$ TIN/LEAD OVER NICKEL
- ♦ 84 100µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30μ" GOLD OVER NICKEL (RoHS)

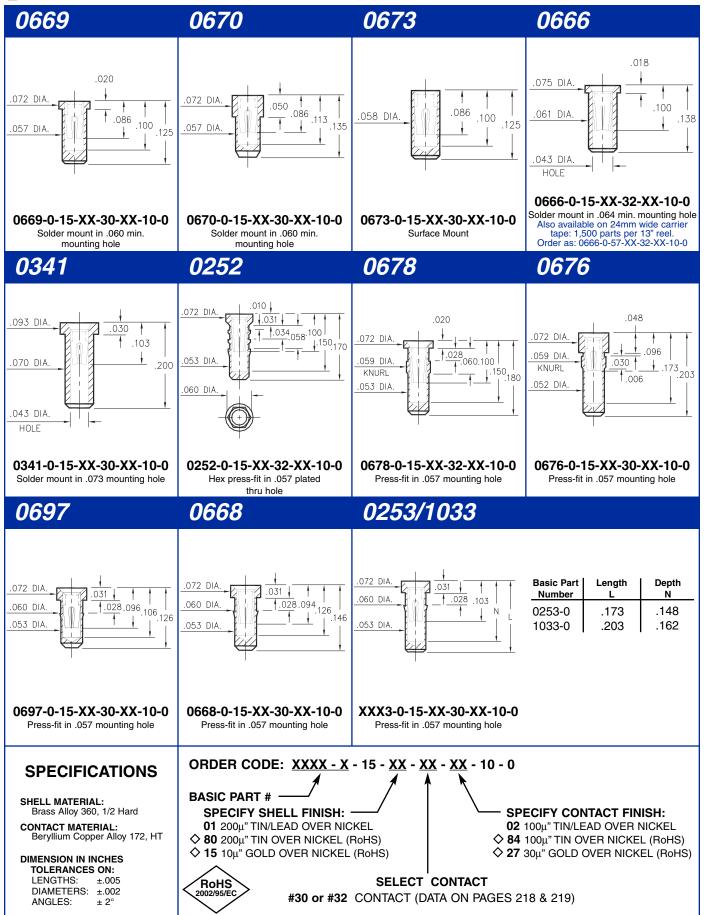


SELECT CONTACT

#30 or #32 CONTACT (DATA ON PAGES 218 & 219)

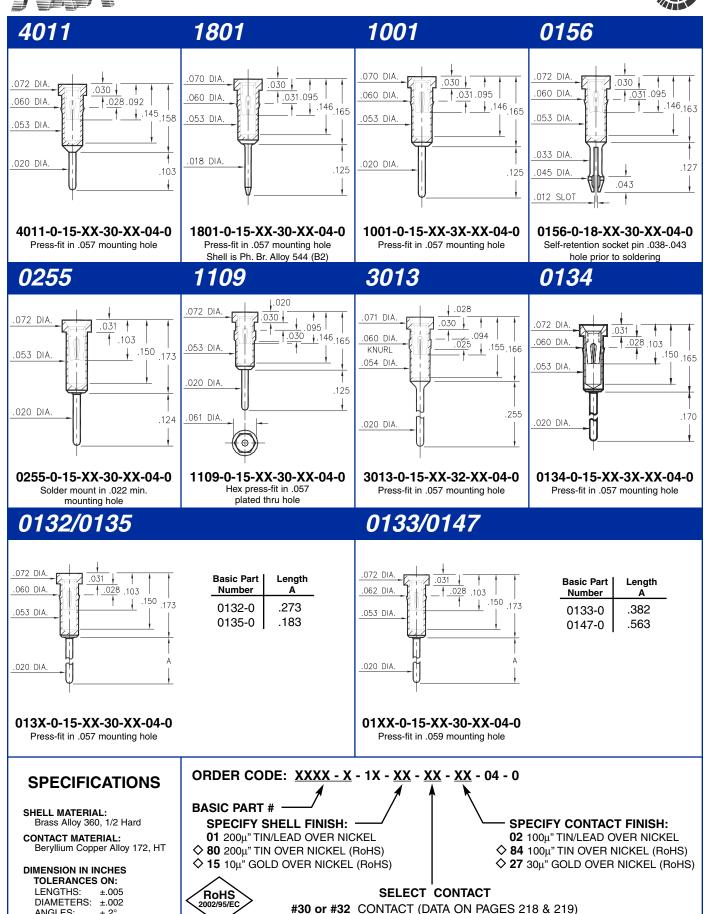












ANGLES:





1005/1013/8898

____028 .095

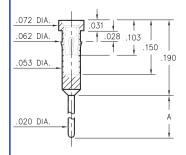
146 152

.030

Basic Part Length Number Α 1005-0 .138 1013-0 .165 8898-0 .224

NOTE: 8898 is not annealed & not suitable for auto-clinching

0145/0146



Basic Part Length Number 0145-0 .300 0146-0 .410

014X-0-15-XX-30-XX-04-0

1103

Press-fit in .059 mounting hole

XXXX-0-15-XX-3X-XX-04-0

.072 DIA

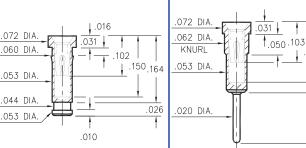
.060 DIA

05.3 DIA

.020 DIA.

Press-fit in .057 mounting hole 1/4 hard brass shell for auto-clinching

0556 4378



4378-0-15-XX-30-XX-10-0 Press-fit in .057 mounting hole

.147 .123

0556-0-15-XX-30-XX-04-0

Press-fit in .059 mounting hole

.030 .094 .060 DIA. 1.144.165 KNURL .053 DIA .217 .018 DIA.

1103-0-15-XX-30-XX-04-0

Press-fit in .057 mounting hole

.072 DIA. .040 .095 .138 .156 .050 DIA

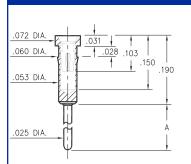
9234

5660

9234-0-15-XX-30-XX-10-0

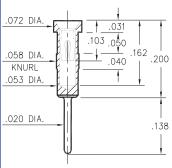
Solder mount in .052 min. mounting hole

0136/37/38/39/41/48/52



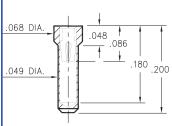
Basic Part Number	Length A
0136-0	1.215
0137-0	.560
0138-0	.210
0139-0	.635
0141-0	.700
0148-0	.455
0152-0	.410

0447



0447-0-15-XX-30-XX-04-0

Press-fit in .056 mounting hole



5660-0-15-XX-30-XX-10-0

Solder mount in .051 min. mounting hole

SPECIFICATIONS

01XX-0-15-XX-30-XX-04-0

Press-fit in .057 mounting hole

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 15 - XX - XX - XX - XX - 0

BASIC PART #

SPECIFY SHELL FINISH: 01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200μ" TIN OVER NICKEL (RoHS) ♦ 15 10µ" GOLD OVER NICKEL (RoHS) RoHS

SPECIFY CONTACT FINISH:

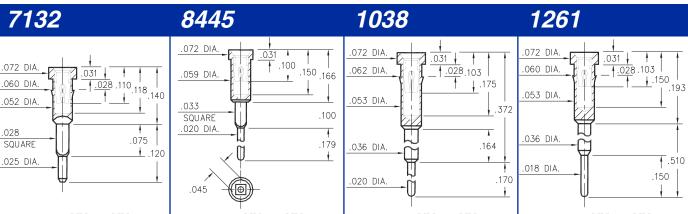
- 02 100μ" TIN/LEAD OVER NICKEL
- ♦ 84 100µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30µ" GOLD OVER NICKEL (RoHS)

SELECT CONTACT

#30 or #32 CONTACT (DATA ON PAGES 218 & 219)







7132-0-15-XX-30-XX-04-0

Square press-fit for .032 ±.002 plated thru hole

8445-0-15-XX-30-XX-04-0

Square press-fit for .039 ±.002 plated thru hole

1038-0-15-XX-30-XX-04-0

Press-fit in .059 mounting hole

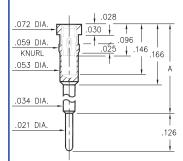
1602/1610

1261-0-15-XX-30-XX-04-0 Press-fit in .057 mounting hole

0153

.072 DIA .031 032 .095 .060 DIA. .146 .166 .053 DIA .040 DIA. .018 DIA .118

Basic Part Number	Height A
0153-1	.236
0153-2	.315
0153-3	.402
0153-4	.472
0153-5	.594
0153-6	.699



Basic Part	Height
Number	A
1602-0	.441
1610-0	.642

0153-X-15-XX-30-XX-04-0

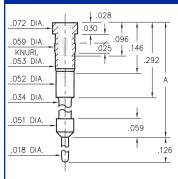
Press-fit in .057 mounting hole

16XX-0-15-XX-30-XX-04-0

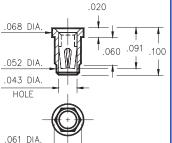
8252

Press-fit in .057 mounting hole

0903/0904

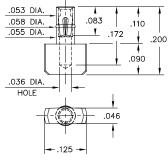


Basic Part	Height
Number	Α
0903-0	.841
0904-0	1.141



8252-0-15-XX-30-XX-10-0 Press-fit in .057 plated thru hole

4078



4078-0-15-XX-30-XX-40-0 Press-fit in .057 mounting hole

090X-0-15-XX-30-XX-04-0

Press-fit in .057 mounting hole

ORDER CODE: XXXX - X - 15 - XX - 30 - XX - XX - 0

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

BASIC PART #

SPECIFY SHELL FINISH:

01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200μ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

RoHS

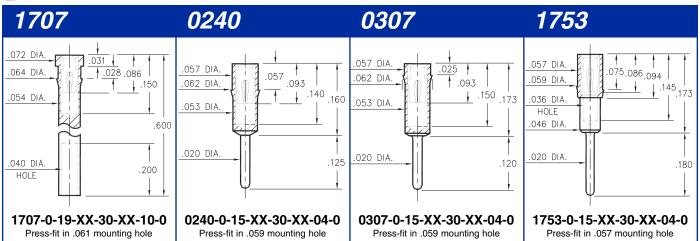
SPECIFY CONTACT FINISH:

- 02 100μ" TIN/LEAD OVER NICKEL
- ♦ 84 100µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30µ" GOLD OVER NICKEL (RoHS)

CONTACT #30 CONTACT (DATA ON PAGES 218)



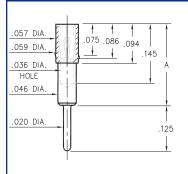




0672

0498

1705/1706/1762



Basic Part	Height
Number	A
1705-0	.165
1706-0	.218
1762-0	.300

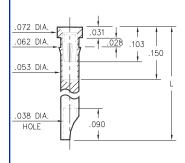
05.3 DIA 086 .105 .135 .070 DIA .045 DIA .035 DIA HOLE

Basic Part Number	Board Thickness	Length V
0672-1	.031	.052
0672-2	.062	.084
0672-3	.094	.115
0672-4	.125	.146

17XX-0-15-XX-3X-XX-04-0 Press-fit in .057 mounting hole

0672-X-15-XX-30-XX-10-0 Swage mount in .049 hole

1024/1104



Basic Part Number	Length L
1024-0	.290
1104-0	.450

.072 DIA .050 .100 .060 DIA .032 ↓ .175 .265 .053 DIA. .020 DIA .125

0498-0-15-XX-35-XX-04-0 Press-fit in .057 mounting hole

016 .072 DIA .060 DIA .028.085 .120 .150 .054 DIA 1.180 .025 DIA. HOLE .036 DIA .110 .052 DIA .010

8131

8131-0-15-XX-30-XX-10-0 Press-fit in .057 mounting hole

SPECIFICATIONS

1XX4-0-18-XX-30-XX-10-0

Press-fit in .059 mounting hole

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 1X - XX - XX - XX - XX - 0

BASIC PART

SPECIFY SHELL FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200μ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

SPECIFY CONTACT FINISH: 02 100μ" TIN/LEAD OVER NICKEL

♦ 84 100µ" TIN OVER NICKEL (RoHS) ♦ 27 30µ" GOLD OVER NICKEL (RoHS)



SELECT CONTACT #30 or #35 CONTACT (DATA ON PAGES 218 & 219)



056 DIA

.058 DIA.

.036 DIA.

HOLE

.046 DIA

.020 DIA.

PIN RECEPTACLES for .015" - .025" diameter pins

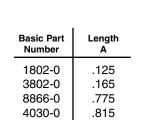




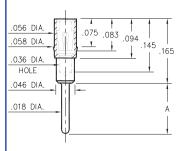
.145

165

.075 .083 .094



1803/1805



Basic Part	Length
Number	A
1803-0	.145
1805-0	.213

XXXX-0-15-XX-43-XX-04-0

Press-fit in .057 mounting hole

180X-0-15-XX-43-XX-04-0

Press-fit in .057 mounting hole

1808

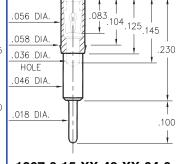
4622

1804/1806

.056 DIA.	075 097
.058 DIA.	.075 .083 .094 .145
.036 DIA.	.250
HOLE .046 DIA.	-
	<u> </u>
.018 DIA.	Į.
	A
(<u> </u>

Basic Part	Length
Number	A
1804-0	.080
1806-0	.115

.075.083.094 .056 DIA .145 165 .058 DIA .036 DIA HOLE .046 DIA .018 DIA .100



1807

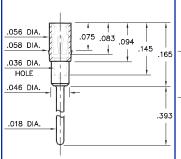
180X-0-15-XX-43-XX-04-0

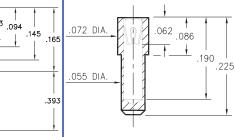
Press-fit in .057 mounting hole

1808-0-15-XX-43-XX-04-0 Press-fit in .057 mounting hole

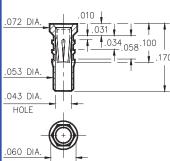
1807-0-15-XX-43-XX-04-0 Press-fit in .057 mounting hole

3805 8830





.019 .068 DIA .060 .086 .100 1 .178 .050 DIA .030 DIA HOLE .056 DIA



3805-0-15-XX-43-XX-04-0

Press-fit in .057 mounting hole

8830-0-15-XX-22-XX-10-0

Solder mount in .057 min. mounting hole

4622-0-15-XX-30-XX-10-0

Hex press-fit in .053 plated thru hole

6252-0-15-XX-32-XX-10-0

Hex press-fit in .057 plated thru hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 15 - XX - XX - XX - XX - 0

BASIC PART # **SPECIFY SHELL FINISH:**

01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200μ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

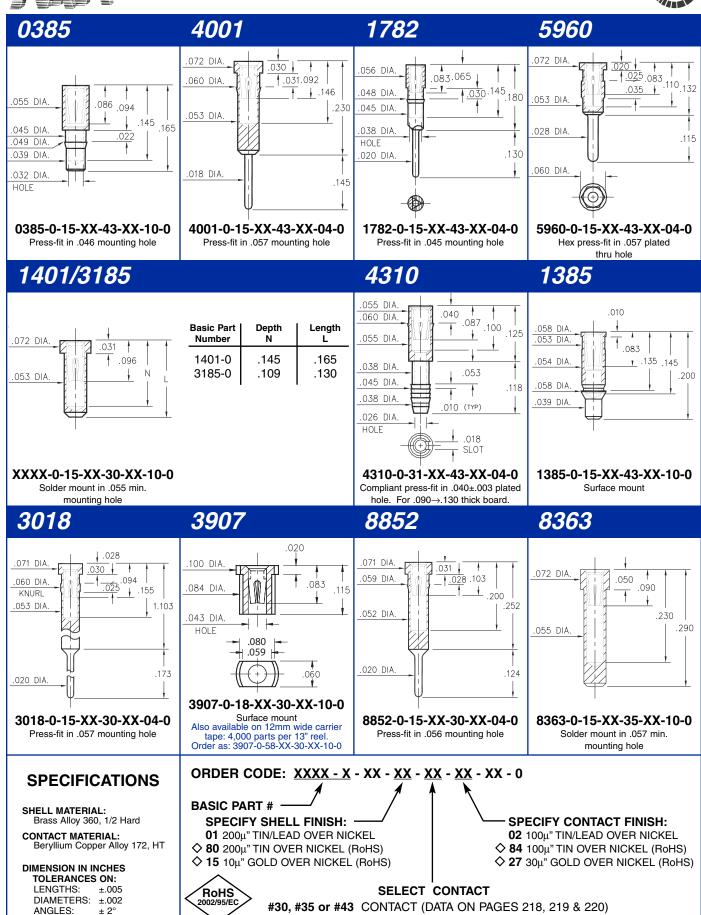
SPECIFY CONTACT FINISH:

- 02 100μ" TIN/LEAD OVER NICKEL
- ♦ 84 100µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30µ" GOLD OVER NICKEL (RoHS)

SELECT CONTACT #22, #30, #32 or #43 CONTACT (DATA ON PAGES 218,219 & 220)

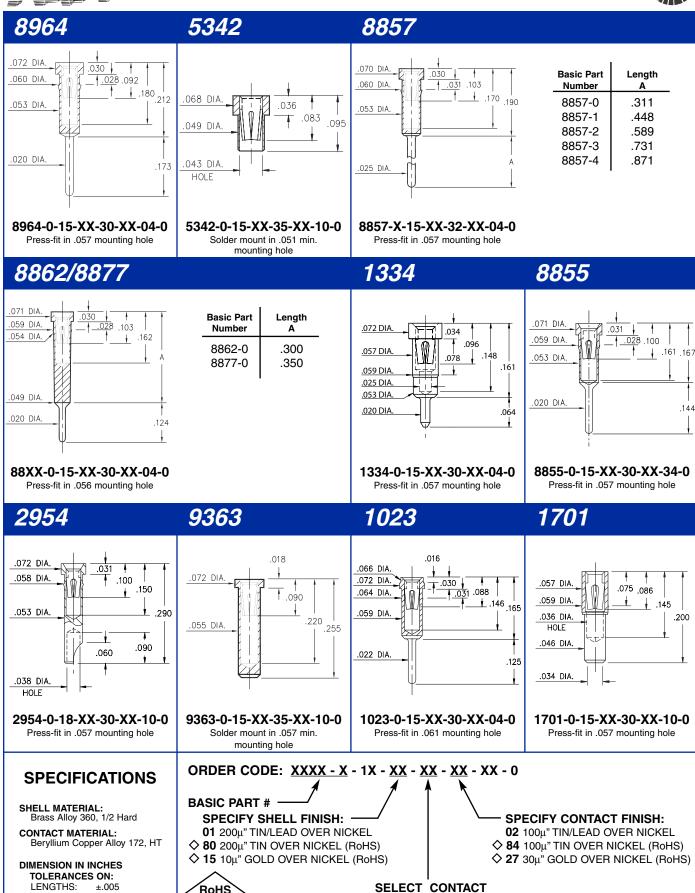












± 2°

DIAMETERS: ±.002

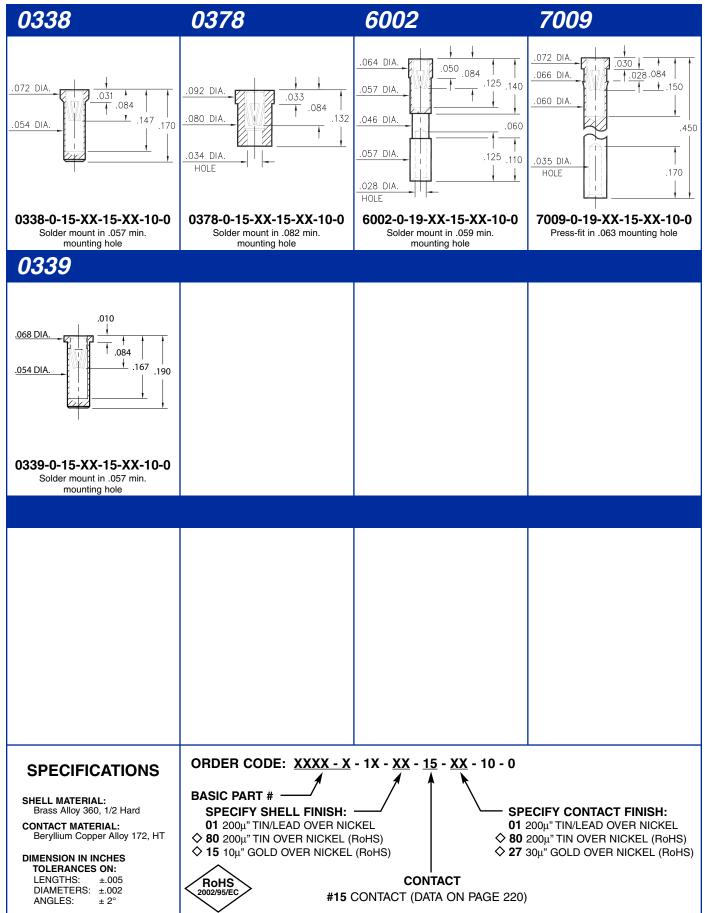
ANGLES:

RoHS

#30, #32 or #35 CONTACT (DATA ON PAGES 218 & 219)

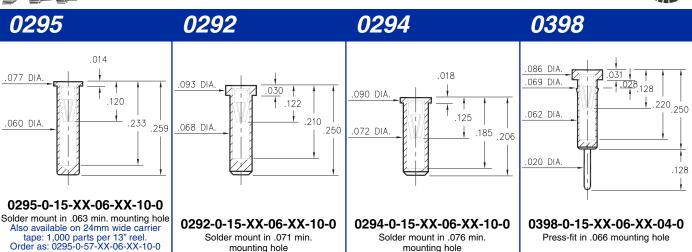




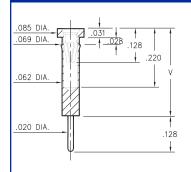






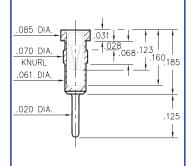


0397 0297



Basic Part	Length
Number	V
0397-0	.353
0397-1	.333
0397-2	.413

mounting hole

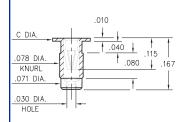


mounting hole

0397-X-15-XX-06-XX-04-0 0297-0-15-XX-06-XX-04-0 Press-fit in .067 mounting hole

9019/9039

Press-fit in .066 mounting hole



Basic Part	Head Dia.
Number	C
9019-0	.125
9039-0	.100

90X9-X-19-XX-06-XX-10-0

Press-fit in .075 mounting hole

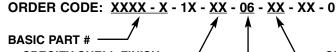
SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL:
Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:



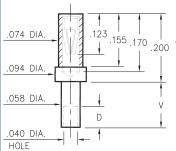
SPECIFY CONTACT FINISH: SPECIFY SHELL FINISH: 01 200μ" TIN/LEAD OVER NICKEL 01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200μ" TIN OVER NICKEL (RoHS) ♦ 80 200µ" TIN OVER NICKEL (RoHS) ♦ 15 10µ" GOLD OVER NICKEL (RoHS) ♦ 27 30µ" GOLD OVER NICKEL (RoHS) **CONTACT** RoHS

#06 CONTACT (DATA ON PAGE 220)

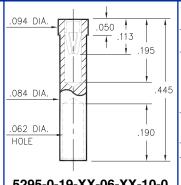








Basic	Board	l 1	
Part	Thick-	Length	Depth
Number	ness	٧	D
0326-1	.031	.062	.040
0326-2	.062	.094	.062
0326-3	.094	.125	.062
0326-4	.125	.156	.062



.102 DIA .100 .138 .093 DIA .495 .530 .028 .085 DIA. .040 DIA .020 .100 .066 DIA

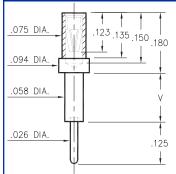
0326-X-19-XX-06-XX-10-0

Swage mount in .060 hole

5295-0-19-XX-06-XX-10-0 Solder mount in .086 min. mounting hole

0396-0-15-XX-06-XX-10-0 Press-fit in .090 mounting hole

0298 8864 9293



Board Thick- ness	Length V
.031	.051
.062	.082
.094	.113
.125	.145
	Thick- ness .031 .062 .094

.016.020 .085 DIA ₮.060.120 .061 DIA .051 DIA. HOLE .071 DIA 9293-0-15-XX-06-XX-10-0

.040 .070 .118 .070 DIA KNURL .290 340 .062 DIA. .040 DIA .083 .103 .060 DIA.

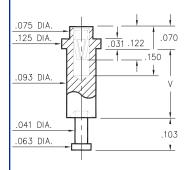
0298-X-15-XX-06-XX-10-0

Swage mount in .060 hole

Hex press-fit in .067 plated thru hole

8864-0-15-XX-06-XX-10-0 Press-fit in.067 mounting hole

0664



Basic Part Number	Board Thick- ness	Length V
0664-1	.094	.125
0664-2	.125	.156
0664-3	.188	.219

0664-X-15-XX-06-XX-10-0

Swage mount in .096 hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 1X - XX - 06 - XX - 10 - 0

♦ 80 200μ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

RoHS

BASIC PART # **SPECIFY CONTACT FINISH: SPECIFY SHELL FINISH:** 01 200μ" TIN/LEAD OVER NICKEL

01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200µ" TIN OVER NICKEL (RoHS)

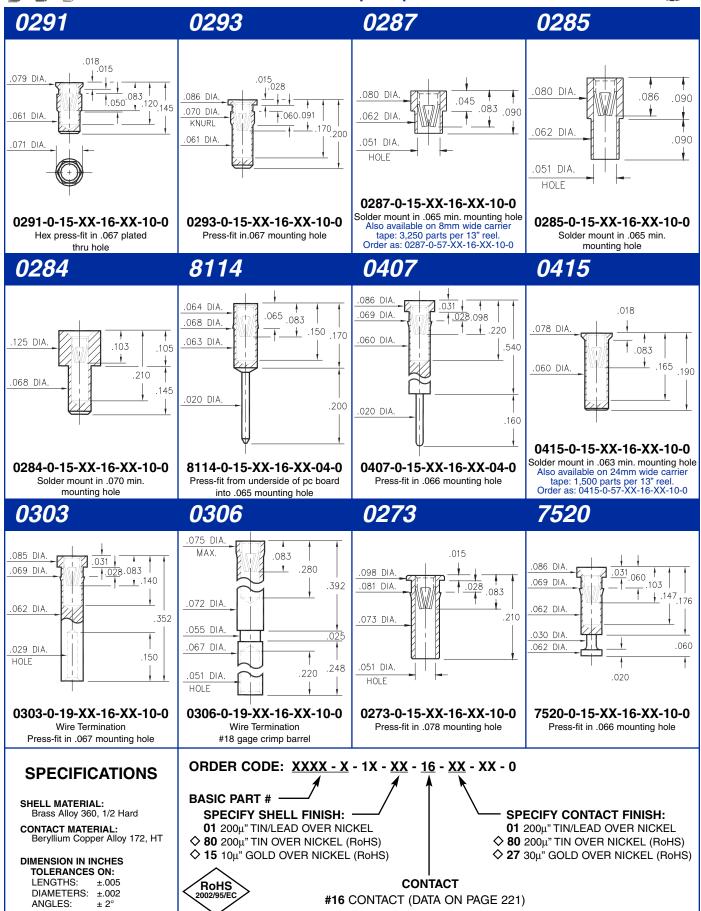
♦ 27 30µ" GOLD OVER NICKEL (RoHS)

CONTACT #06 CONTACT (DATA ON PAGE 220)



PIN RECEPTACLES for .022" - .034" diameter pins and .025" square pins

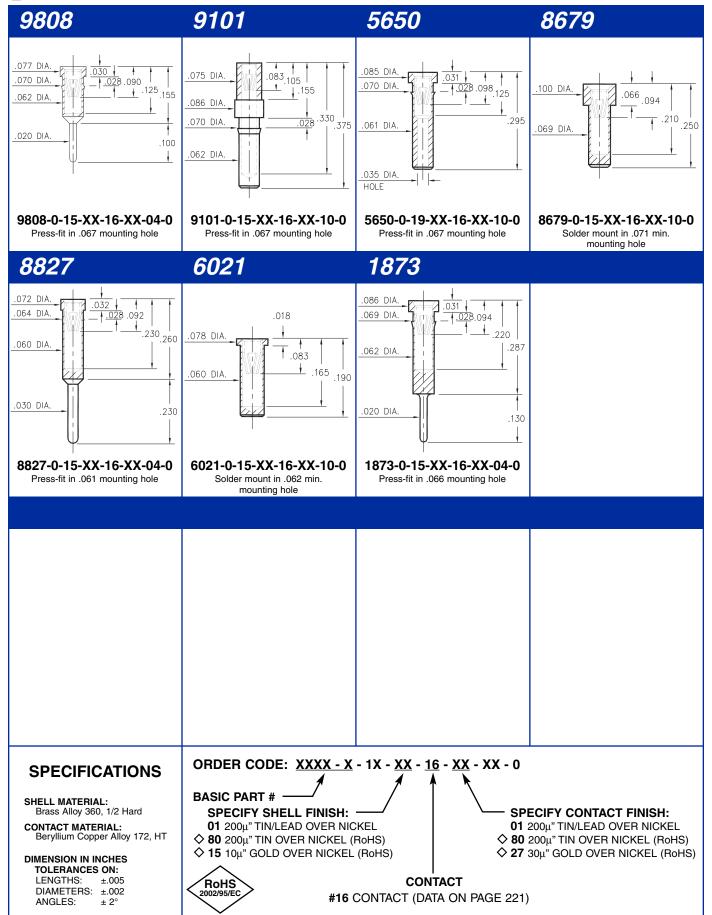






PIN RECEPTACLES for .022" - .034" diameter pins and .025" square pins

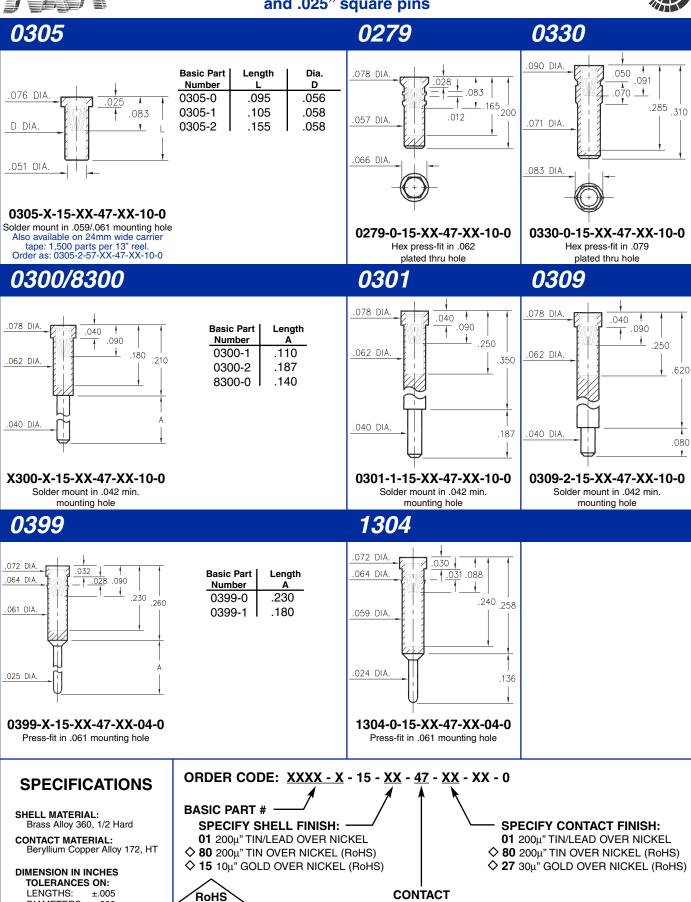






PIN RECEPTACLES for .025" - .037" diameter pins and .025" square pins





DIAMETERS: ±.002

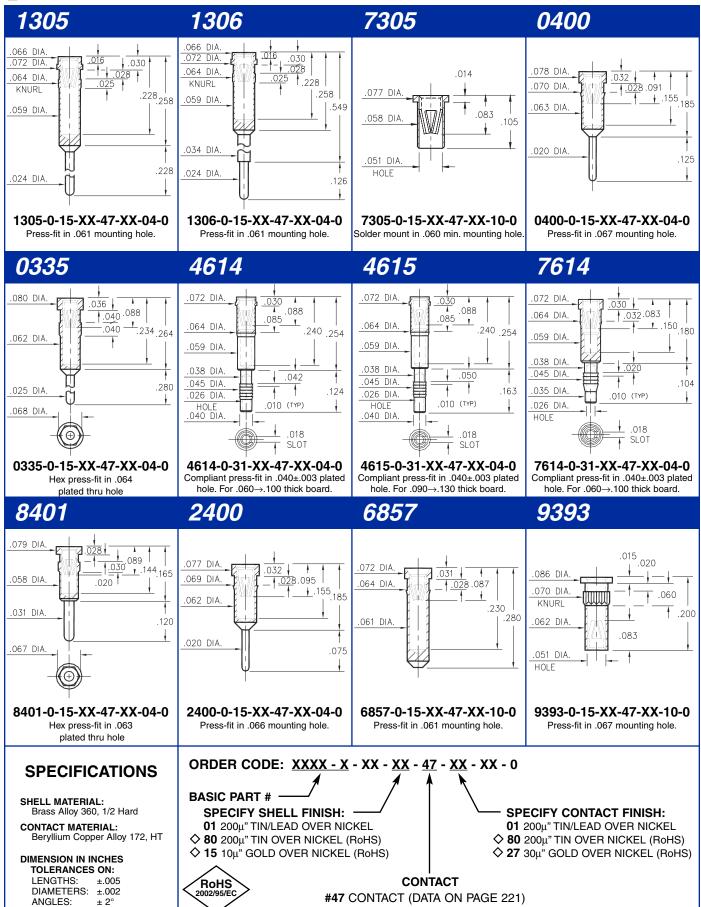
ANGLES:

#47 CONTACT (DATA ON PAGE 221)



PIN RECEPTACLES for .025" - .037" diameter pins and .025" square pins





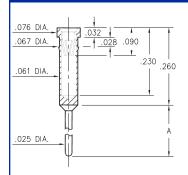


PIN RECEPTACLES for .025" - .037" diameter pins and .025" square pins

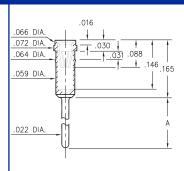




1303/8303



Basic Part Number	Length A
0401-0	.340
6401-0	.540



Basic Part Length Number 1303-0 .125 8303-0 l .800

X401-0-15-XX-47-XX-04-0

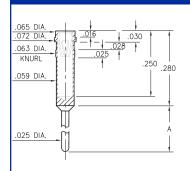
Press-fit in .064 mounting hole

X303-0-15-XX-47-XX-04-0

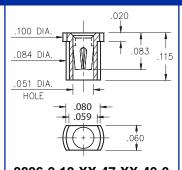
Press-fit in .061 mounting hole

4095

8806



Basic Part Length Number 4095-0 .635



8806-0-18-XX-47-XX-40-0

Surface mount

Also available on 12mm wide carrier tape: 4,000 parts per 13" reel. Order as: 8806-0-58-XX-47-XX-40-0

409X-0-15-XX-47-XX-04-0

Press-fit in .061 mounting hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL:
Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 1X - XX - 47 - XX - XX - 0

BASIC PART #

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

RoHS

SPECIFY SHELL FINISH: 01 200μ" TIN/LEAD OVER NICKEL

SPECIFY CONTACT FINISH:

01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 27 30μ" GOLD OVER NICKEL (RoHS)

CONTACT #47 CONTACT (DATA ON PAGE 221)



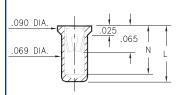
7405

0319

3520



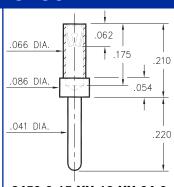




Basic Part Number	Length L	Depth N
0331-0	.150	.127
9353-0	.170	.147

.090 DIA .087 DIA. _______.028 .071 220 .375 .078 DIA. .090 .040 .035 DIA. HOLE

7405-0-18-XX-18-XX-10-0 Press-fit in .084 mounting hole



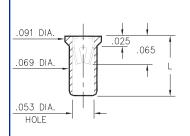
3450

3450-0-15-XX-18-XX-04-0 Solder mount in .043 min. mounting hole

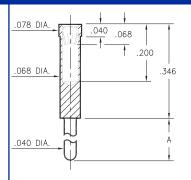
X3XX-X-15-XX-18-XX-10-0

Solder mount in .071 min. mounting hole

9354/7406



Basic Part	Length
Number	L
7406-0	.120
9354-0	.170



Basic Part	Length
Number	Α
0319-0	.240
0319-1	.280

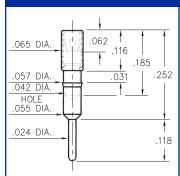
XXXX-0-15-XX-18-XX-10-0

Solder mount in .071 min. mounting hole

0319-X-15-XX-18-XX-04-0

Solder mount in .042 min. mounting hole

1313



1313-0-15-XX-18-XX-04-0

Press-fit in .056 mounting hole

.105 DIA .071 .090 DIA. .200 .054 DIA. HOLE - .078 ⊢ -1.057 .070

6628

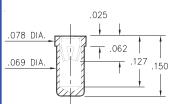
6628-0-18-XX-18-XX-10-0

Surface mount
Also available on 12mm wide carrier tape: 3,700 parts per 13" reel. Order as: 6628-0-58-XX-18-XX-10-0

.088 DIA .040 .083 .095 .068 DIA 1 .054 DIA HOLE

3520-0-15-XX-18-XX-10-0

Solder mount in .070 min. mounting hole



8331

8331-0-15-XX-18-XX-10-0

Solder mount in .071 min. mounting hole

SPECIFICATIONS

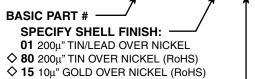
SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL:
Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 1X - XX - 18 - XX - XX - 0



SPECIFY CONTACT FINISH:

- 01 200μ" TIN/LEAD OVER NICKEL
- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30µ" GOLD OVER NICKEL (RoHS)

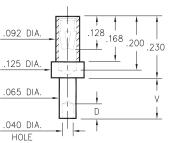
RoHS

CONTACT #18 CONTACT (DATA ON PAGE 222)





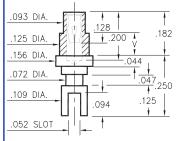




0344-X-19-XX-34-XX-10-0

Swage mount in .067 hole

Basic Part Number	Board Thick-	Length	Depth
	ness	V	
0344-1	.031	.062	.040
0344-2	.062	.094	.062
0344-3	.094	.125	.062
0344-4	.125	.156	.062

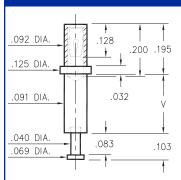


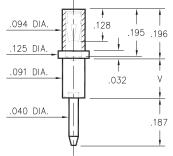
Basic Part Number	Board Thickness	Length V
0349-2	.062	.094
0349-3	.094	.125
0349-4	.125	.156

0349-X-31-XX-34-XX-10-0

Swage mount in .129 hole

0323/0324





Number	Board Thickness	Length V
032X-1	.031	.062
032X-2	.062	.094
032X-3	.094	.125
032X-4	.125	.156
032X-5	.188	.219

.118 .090 DIA .200 224 .102 DIA .029 DIA HOLE .0.31 .077 DIA .282 .306 .105 DIA .075 .113 .086 DIA .049 DIA.

0348

0323-X-15-XX-34-XX-10-0

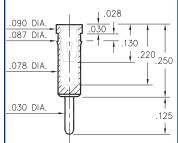
Swage mount in .094 hole

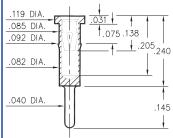
0324-X-15-XX-34-XX-10-0

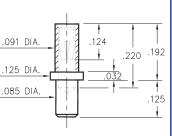
Swage mount in .094 hole

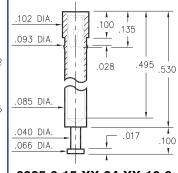
0348-0-33-XX-34-XX-10-0 #20A Crimp Barrel

0405 0322 0325 0336









0405-0-15-XX-34-XX-04-0

Press-fit in .084 mounting hole

0336-0-15-XX-34-XX-04-0

Press-fit in .089 mounting hole

0322-0-15-XX-34-XX-10-0

Solder mount in .089 min. mounting hole

0325-0-15-XX-34-XX-10-0 Press-fit in .090 mounting hole

ORDER CODE: XXXX - X - XX - XX - 34 - XX - XX - 0 **SPECIFICATIONS**

RoHS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

BASIC PART # **SPECIFY SHELL FINISH:**

01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200μ" TIN OVER NICKEL (RoHS) ♦ 15 10µ" GOLD OVER NICKEL (RoHS)

SPECIFY CONTACT FINISH:

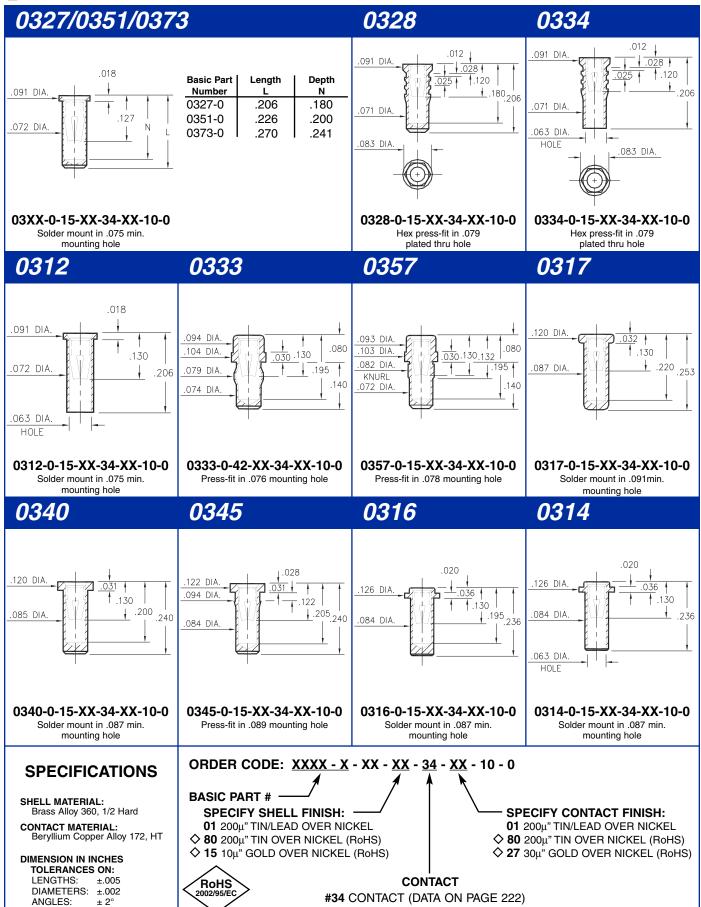
01 200μ" TIN/LEAD OVER NICKEL

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30µ" GOLD OVER NICKEL (RoHS)

CONTACT #34 CONTACT (DATA ON PAGE 222)

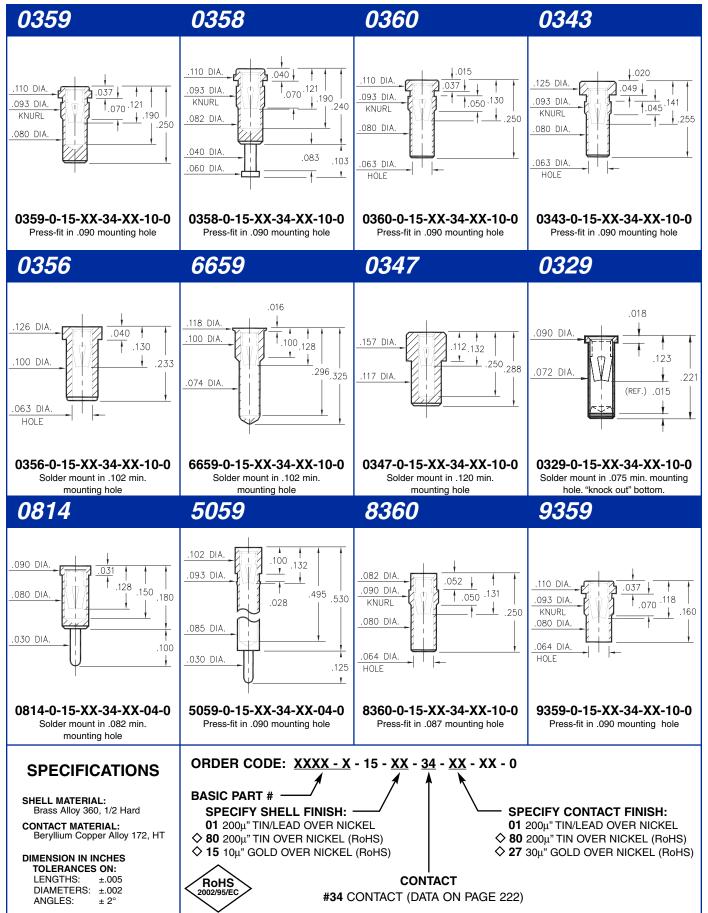








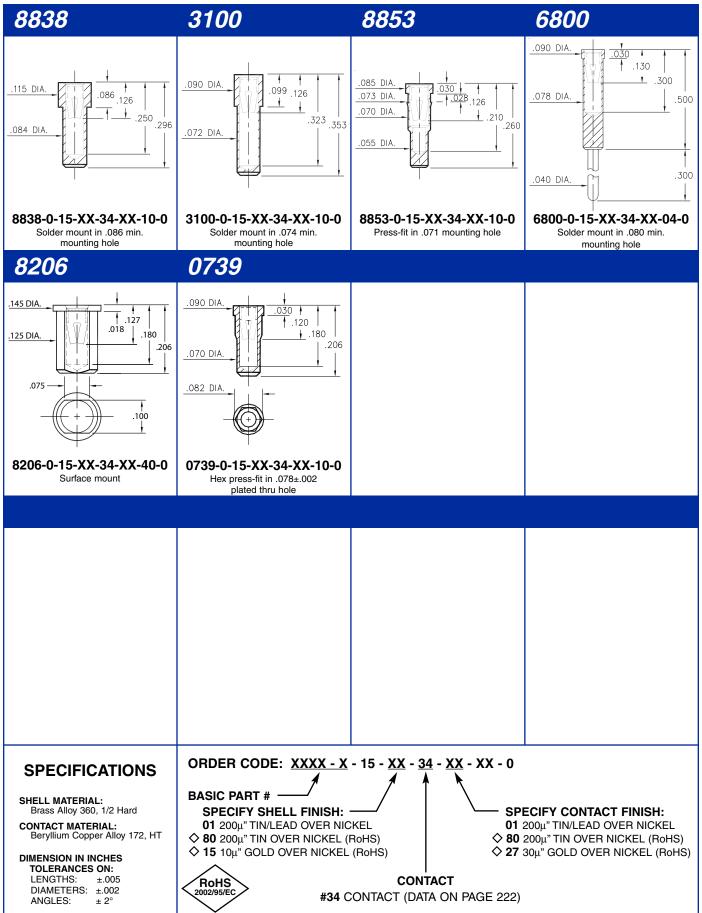






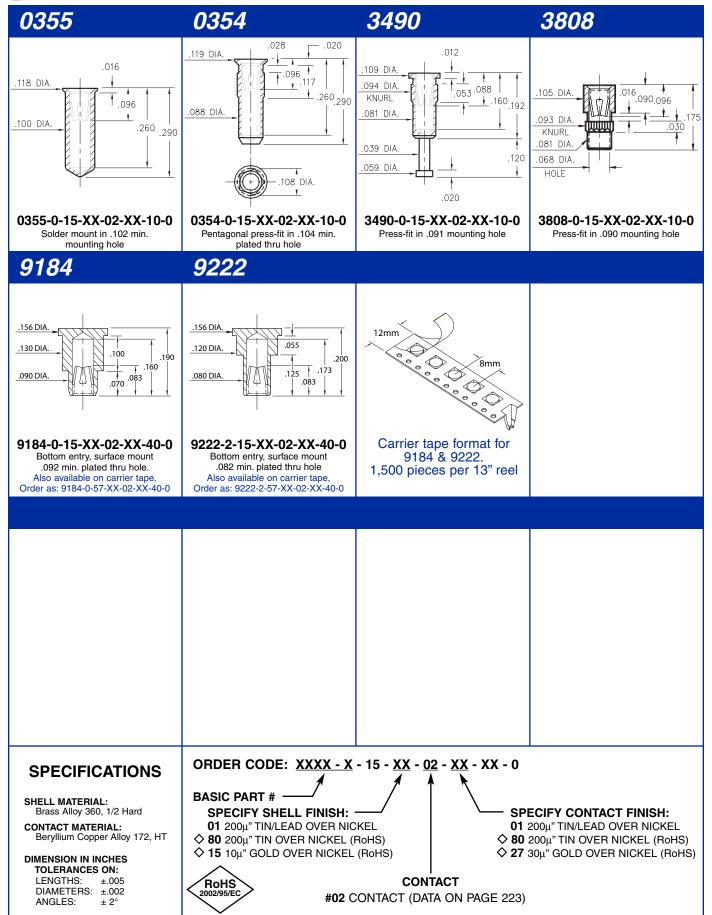
PIN RECEPTACLES for .032" - .046" diameter pins (#34 contact)











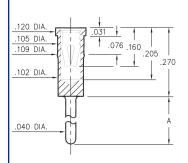


for .040" - .060" diameter pins (#03 contact) and .059" - .063" diameter pins (#42 contact)

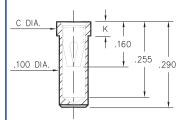


0433/8433

0435/0436



Basic Part Number	Length A
0433-0	.120
8433-0	.330



Basic Part Number	Dia. C	Length K
0435-0	.118	.050
0436-0	.125	.070

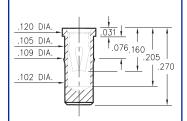
X433-0-15-XX-03-XX-04-0 Press-fit in .106 mounting hole

0435-0-15-XX-03-XX-10-0

Solder mount in .102 min. mounting hole Also available on 24mm wide carrier tape: 950 parts per 13" reel. Order as: 0435-0-57-XX-03-XX-10-0

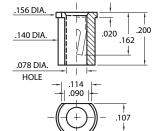
0434

4064 0342



0434-0-15-XX-03-XX-10-0

Press-fit in .106 mounting hole



4064-0-18-XX-03-XX-40-0

Surface mount

Also available on 16mm wide carrier tape: 2,400 parts per 13" reel. Order as: 4064-0-58-XX-03-XX-40-0

.106 DIA .050 .150 .210 .084 DIA .094 DIA.

0342-0-15-XX-42-XX-10-0

Hex press-fit in .090±.002 plated thru hole

- 0342 receptacle uses Mill-Max's new #42 Contact. This receptacle will accept the Ø.061±.002 power pins of 1/4 brick DC/DC converters.
- #42 contact can be ordered in standard receptacles that use #03 contact; or it can be specified as the spring element inside custom made receptacles.

Mechanical Data #42 Contact:

Insertion/Extraction Force with a Ø.061 (nominal) pin:

First Cycle		2nd & Subsequent Cycles	
Insertion Force	Extraction Force	Insertion Force	Extraction Force
20N	6N	10N	6N

Compliancy Test (the "spring back" characteristic of the contact to accept Ø.059 small pin after insertion of a Ø.063 large pin) :

Initial Cycle with Ø.059 pin		Second Cycle with Ø.063 pin		Third Cycle with Ø.059 pin	
Ins. Force	Ext. Force	Ins. Force	Ext. Force	Ins. Force	Ext. Force
18N	6N	22N	7N	3N	2N

(Insertion/Extraction Forces are in Newtons and measured with polished steel gage pins having elliptical shaped tips).

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 1X - XX - XX - XX - XX - 0

BASIC PART #

SPECIFY SHELL FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

SPECIFY CONTACT FINISH:

- 01 200μ" TIN/LEAD OVER NICKEL
- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30µ" GOLD OVER NICKEL (RoHS)

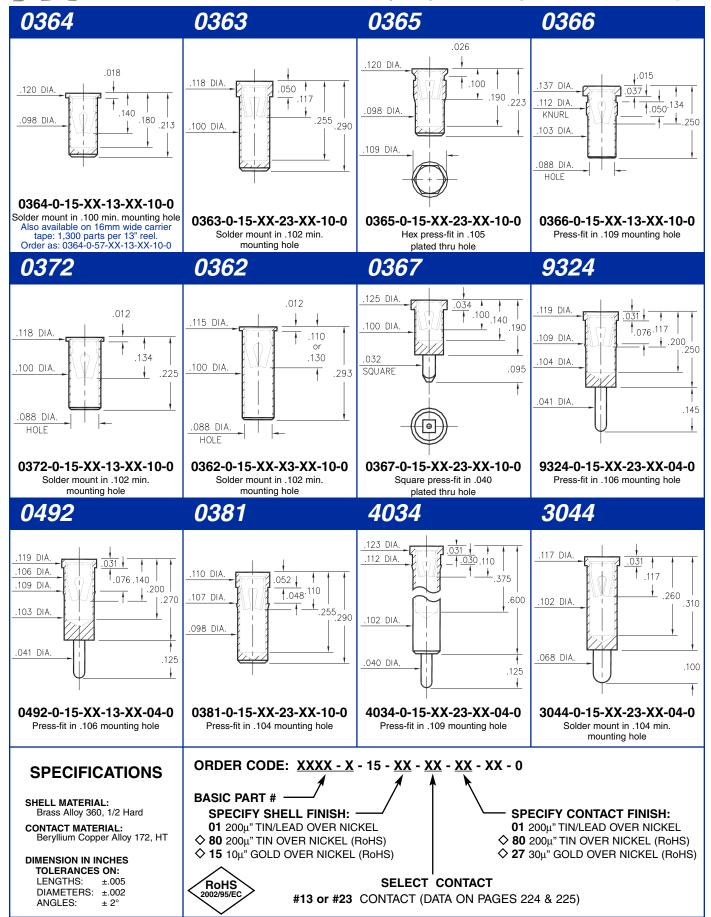


SELECT CONTACT #03 or #42 CONTACT (DATA ON PAGE 224)



for .048" - .064" diameter pins (#13 contact) and .045" - .065" diameter pins (#23 contact)

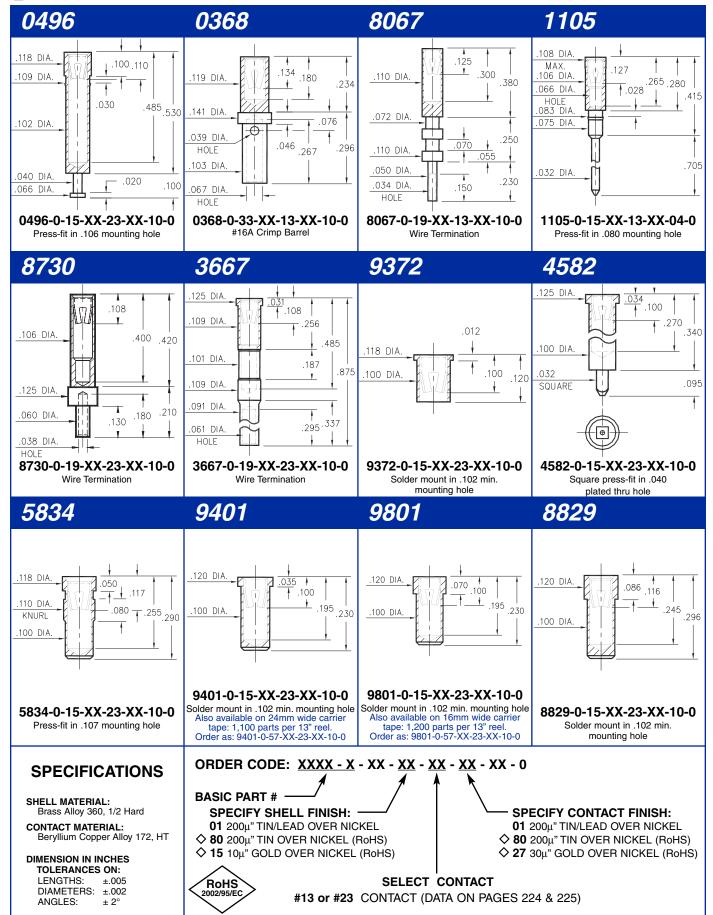






for .048" - .064" diameter pins (#13 contact) and .045" - .065" diameter pins (#23 contact)

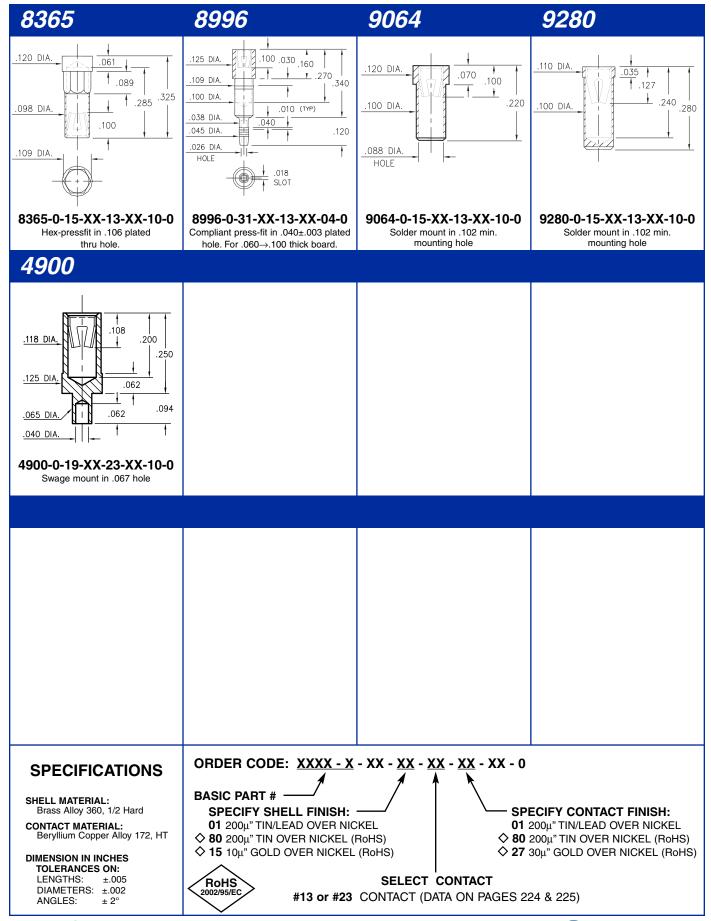






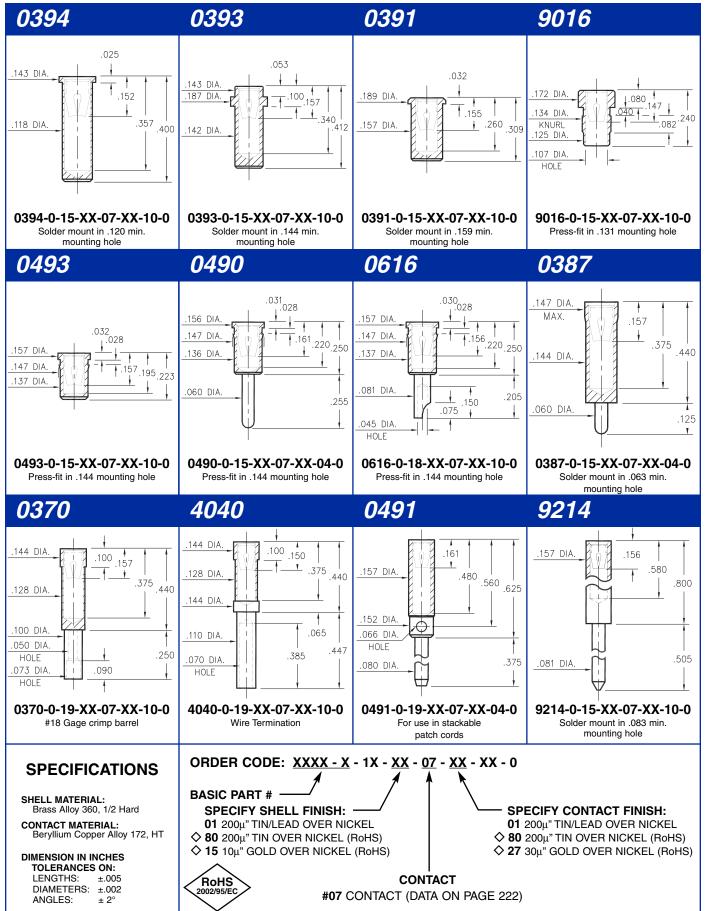
for .048" - .064" diameter pins (#13 contact) for .045" - .065" diameter pins (#23 contact)







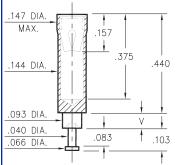




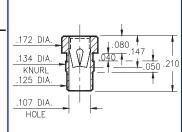








Basic Part Number	Board Thickness	Length V
0395-1	.031	.062
0395-2	.062	.094
0395-3	.094	.125
0395-4	.125	.156
0395-5	.188	.219



8016-0-15-XX-07-XX-10-0

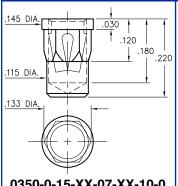
Press-fit in .131 mounting hole

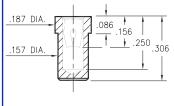
0395-X-15-XX-07-XX-10-0

Swage mount in .096 hole

0350

8837





0350-0-15-XX-07-XX-10-0

Hex press-fit in .129±.002 plated thru hole

8837-0-15-XX-14-XX-10-0

Solder mount in .159 min. mounting hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ± 2°

ORDER CODE: XXXX - X - 15 - XX - XX - XX - 10 - 0

BASIC PART # **SPECIFY SHELL FINISH:** 01 200 μ " TIN/LEAD OVER NICKEL ♦ 80 200µ" TIN OVER NICKEL (RoHS) ♦ 15 10µ" GOLD OVER NICKEL (RoHS)

SPECIFY CONTACT FINISH:

01 200μ" TIN/LEAD OVER NICKEL

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 27 30μ" GOLD OVER NICKEL (RoHS)

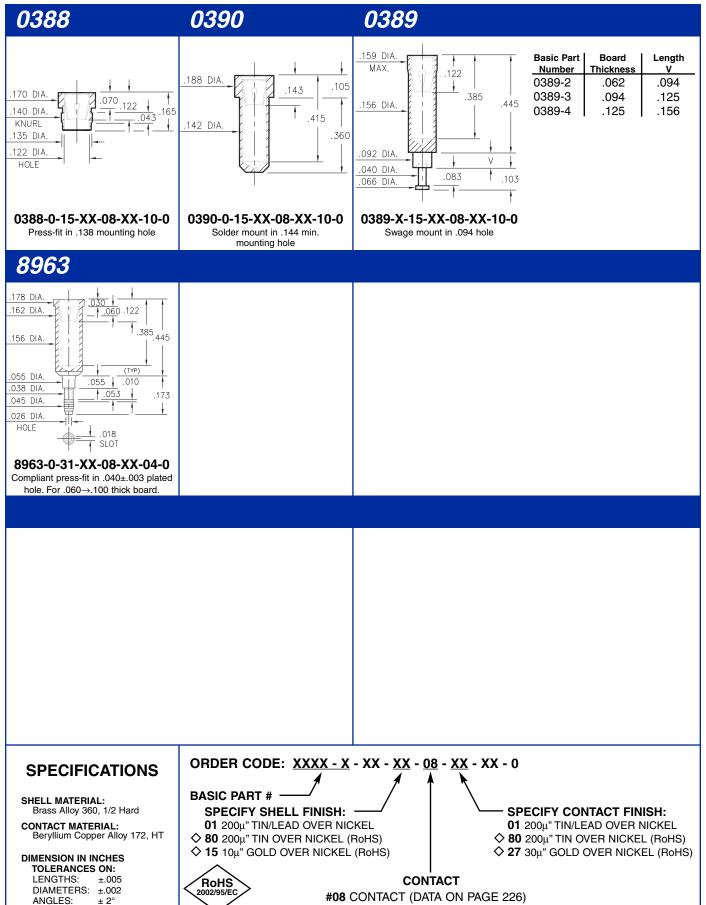


SELECT CONTACT

#07 or #14 CONTACT (DATA ON PAGES 225 & 226)









PIN RECEPTACLES With Organic Fibre Plug[®] Solder Barrier (see specific contact range on pages 216, 217, 218 & 221)



- These through-hole (tubular) receptacles are designed for hand, wave or reflow* soldering. The ORGANIC FIBRE PLUG® barrier prevents solder, paste or flux from contaminating the spring contact.
- After soldering, the OFP[®] barrier is pushed out of the receptacle when the device is plugged in.
- All parts are available as discrete receptacles; but for SMT assembly, certain receptacles are supplied on carrier tape per EIA-481 to feed industry standard pick and place machines.

*Intrusive reflow (also called "pin-in-paste") is a technique of using conventional through-hole components in a reflow soldering process. The receptacles are placed into plated through-holes in the circuit board (solder paste has previous-



ly been screen printed on pads adjacent to the holes) and the board is reflowed in the same pass as other SMT components. Solder will fill the plated through-holes and achieve solder joints as reliable as wave soldering. The OFP[®] barrier prevents solder paste from being picked-up inside the contact during pick in place assembly. "Overprinting" paste on the solder mask can be used to adjust the volume of paste required to fill each hole.

5359 0577 4015 3435 .0.30 .048 DIA .058 DIA 020 .088 .025 .064 DIA .130 .061 DIA .052 DIA .038 DIA .086 .089 .100 .060 .210 .040 DIA 100 .071 .043 DIA .028 DIA .031 DIA .043 DIA .009 .009 009 .036 DIA 009 5359-0-XX-XX-10-XX-10-0 0577-0-XX-XX-21-XX-10-0 4015-0-XX-XX-30-XX-10-0 3435-0-XX-XX-47-XX-04-0 Solder mount in Ø.043±.003 PTH. Solder mount in Ø.045±.003 PTH. Solder mount in Ø.057±.003 PTH. Solder mount in Ø.046±.003 PTH. #30 Contact for Ø.015-.025 pins. **#10** Contact for Ø.012-.017 pins. #21 Contact for Ø.015-.022 pins. #47 Contact for Ø.025-.036 and Also available on 16mm wide carrier Also available on 12mm wide carrier Also available on 8mm wide carrier .025" square pins. tape: 3,000 parts per 13" reel. tape: 3,000 parts per 13" reel. tape: 5,500 parts per 13" reel. ORDER CODE: XXXX - 0 - XX - XX - XX - XX - XX - 0 **SPECIFICATIONS** SHELL MATERIAL: Brass Alloy 360, 1/2 Hard BASIC PART # -CONTACT MATERIAL: SPECIFY PACKAGING: SPECIFY CONTACT FINISH: Beryllium Copper Alloy 172, HT 43 Discrete Receptacles ♦ 27 30μ" GOLD OVER NICKEL (RoHS) SOLDER BARRIER: Organic Fibre Plug® 67 Supplied on 13" Reels 02 100μ" TIN/LEAD OVER NICKEL **DIMENSION IN INCHES** SPECIFY SHELL FINISH: ♦ 84 100µ" TIN OVER NICKEL (RoHS) TOLERANCES ON: 01 200μ" TIN/LEAD OVER NICKEL LENGTHS: ±.005 DIAMETERS: ±.002 CONTACT ♦ 80 200µ" TIN OVER NICKEL (RoHS)

± 2°

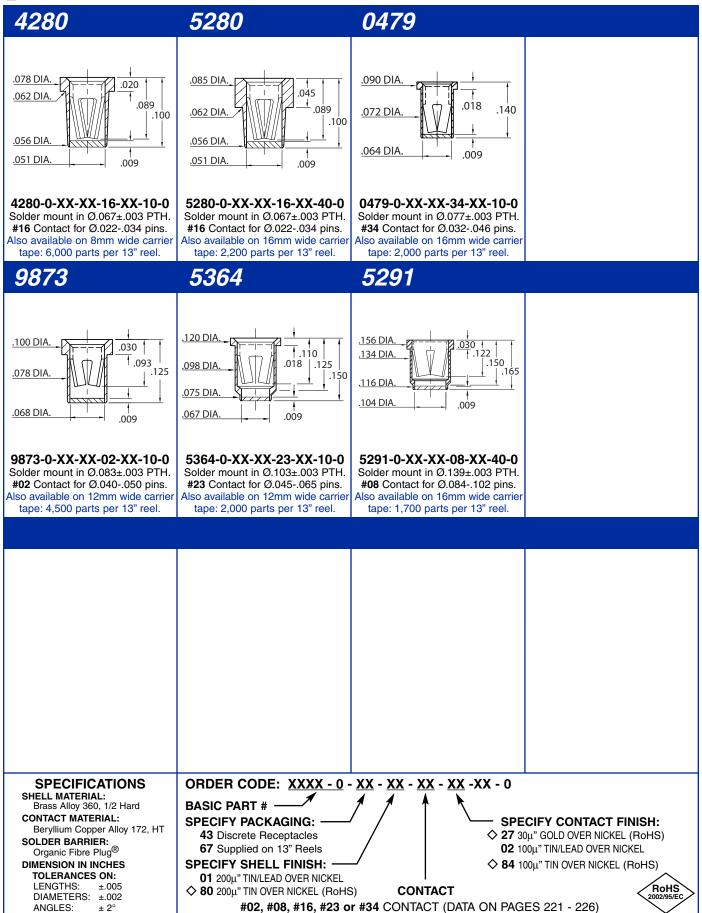
ANGLES:

#10, #21, #30 or #47 CONTACT (DATA ON PAGES 216, 217, 218 & 221)



PIN RECEPTACLES With Organic Fibre Plug[®] Solder Barrier (see specific contact range on pages 221 - 226)







.056 DIA.

.059 DIA.

.030 DIA.

HOLE .045 DIA

.025

SQUARE

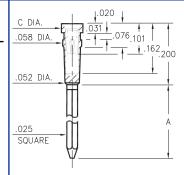
WRAPOST RECEPTACLES for .015" - .025" diameter pins



1702/1703

Basic Part # of Length Number Wraps .370 1702-2 2 .510 1703-3 3

0038⇒0040/0066⇒0068



Basic Part #	# of Wraps	Length A	Dia. C
0040-1	1	.260	
0039-2	2	.360	.072
0038-3	3	.500	
0068-1	1	.260	
0067-2	2	.360	.062
0066-3	3	.500	

170X-X-17-XX-30-XX-02-0

Press-fit in .057 mounting hole

00XX-X-17-XX-30-XX-02-0

Press-fit in .055 mounting hole

0086/0088/0089

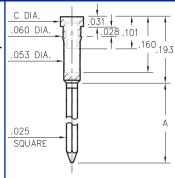
.075 .086 .094

1.145.165

.071 DIA.	031
.060 DIA. KNURL	028.053.096
.053 DIA.	- 193
.025 SQUARE	-
	Ψ

Basic Part Number	# of Wraps	Length A
0089-2	2	.370
0088-3	3	.510
0086-4	4	.630

1030⇒1036



Basic Part #	# of Wraps	Length A	Dia. C
1032-1	1	.260	
1031-2	2	.360	.072
1030-3	3	.510	
1036-1	1	.260	
1035-2	2	.360	.062
1034-3	3	.510	

008X-X-17-XX-3X-XX-02-0

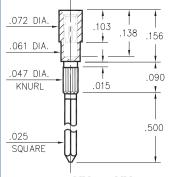
Press-fit in .057 mounting hole

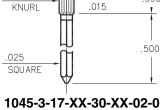
103X-X-17-XX-3X-XX-02-0

Press-fit in .057 mounting hole

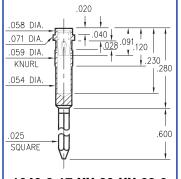
1045

1040





Press-fit in .043 mounting hole



1040-3-17-XX-30-XX-02-0

Press-fit in .056 mounting hole

SPECIFICATIONS

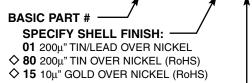
SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 17 - XX - XX - XX - 02 - 0



SPECIFY CONTACT FINISH:

02 100μ" TIN/LEAD OVER NICKEL

♦ 84 100µ" TIN OVER NICKEL (RoHS)

♦ 27 30µ" GOLD OVER NICKEL (RoHS)



SELECT CONTACT

#30 or #32 CONTACT (DATA ON PAGES 218 & 219)







.072 DIA

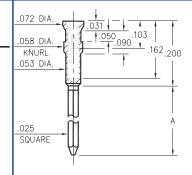
.058 DIA

KNURL .053 DIA

.025 SQUARE

.020 7 .031 \ Basic Part # of Length .045 .103 Number **Wraps** 162.200 0444-1 .260 1 0444-2 2 .370 0444-3 3 .505

0445



 Basic Part Number
 # of Wraps
 Length A

 0445-3
 3
 .505

044X-X-17-XX-30-XX-02-0

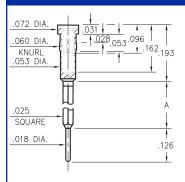
Press-fit in .056 mounting hole

0444-X-17-XX-30-XX-02-0

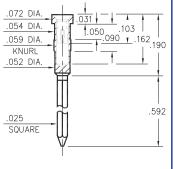
Press-fit in .056 mounting hole

2601 ⇒ *2603*

1047



Basic Part Number	# of Wraps	Length A
2601-0	1	.232
2602-0	2	.350
2603-0	3	.468



1047-3-17-XX-30-XX-02-0

Press-fit in .056 mounting hole

260X-X-17-XX-30-XX-02-0

Press-fit in .057 mounting hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL:
Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: $\pm .005$ DIAMETERS: $\pm .002$ ANGLES: $\pm 2^{\circ}$ ORDER CODE: XXXX - X - 17 - XX - 30 - XX - 02 - 0

BASIC PART # ——/
SPECIFY SHELL FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

RoHS 2002/95/EC - SPECIFY CONTACT FINISH:

02 100μ" TIN/LEAD OVER NICKEL

♦ 84 100µ" TIN OVER NICKEL (RoHS)

♦ 27 30μ" GOLD OVER NICKEL (RoHS)

CONTACT (DATA ON PAGE 218)



WRAPOST RECEPTACLES

for .022" - .032" diameter pins (#06 contact) and .022" - .034" diameter pins (#16 contact)





.070 DIA.

KNURI

.061 DIA

.025

SQUARE

Basic Part Number # of Wraps Length A 2297-2 2 .370 2297-3 3 .430

.084 DIA. .124 .139 .084 DIA. .062 .153 .074 DIA. .153

 Basic Part Number
 # of Wraps
 Length A

 0280-2
 2
 .360

 0280-3
 3
 .510

2297-X-17-XX-16-XX-02-0

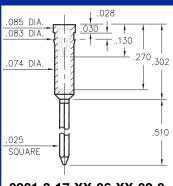
Press-fit in .067 mounting hole

1.040 .090

____.150 .175

0280-X-17-XX-06-XX-02-0Press-fit in .081 mounting hole

0281



0281-3-17-XX-06-XX-02-0

Press-fit in .080 mounting hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL: Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: $\pm .005$ DIAMETERS: $\pm .002$ ANGLES: $\pm 2^{\circ}$ ORDER CODE: XXXX - X - 17 - XX - XX - XX - 02 - 0

BASIC PART # ——

SPECIFY SHELL FINISH: —

01 200 μ " TIN/LEAD OVER NICKEL \diamondsuit 80 200 μ " TIN OVER NICKEL (RoHS)

♦ 15 10μ" GOLD OVER NICKEL (RoHS)

RoHS 2002/95/EC - SPECIFY CONTACT FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 27 30μ" GOLD OVER NICKEL (RoHS)

SELECT CONTACT

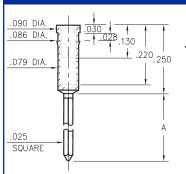
#06 or #16 CONTACT (DATA ON PAGES 220 & 221)



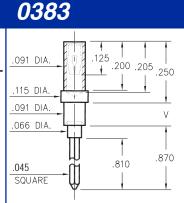
WRAPOST RECEPTACLES for .032" - .046" diameter pins







Basic Part Number	# of Wraps	Length A
1053-2	2	.360
1052-3	3	.515



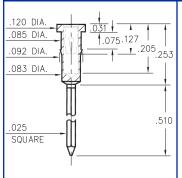
Length **Basic Part Board** Number **Thickness** 0383-1 .094 .062 0383-2 .094 .125 0383-3 .125 .156

0383-X-17-XX-34-XX-02-0 Swage mount in .094 hole

105X-X-17-XX-34-XX-02-0

Press-fit in .083 mounting hole

0382



0382-3-17-XX-34-XX-02-0

Press-fit in .089 mounting hole

SPECIFICATIONS

SHELL MATERIAL: Brass Alloy 360, 1/2 Hard

CONTACT MATERIAL:
Beryllium Copper Alloy 172, HT

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 17 - XX - 34 - XX - 02 - 0

SPECIFY SHELL FINISH:

01 200 μ " TIN/LEAD OVER NICKEL

 \diamondsuit **80** 200 μ " TIN OVER NICKEL (RoHS)

♦ 15 10µ" GOLD OVER NICKEL (RoHS)

RoHS

BASIC PART #

SPECIFY CONTACT FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 27 30μ" GOLD OVER NICKEL (RoHS)

CONTACT #34 CONTACT (DATA ON PAGE 222)

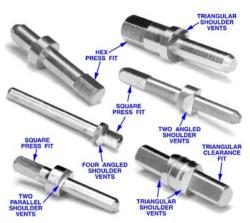


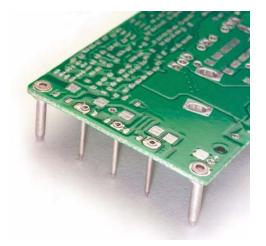


THE BASIC PIN

Mill-Max printed circuit pins are machined individual pins used for various plug-in applications and are functionally the dynamic building blocks within an interconnect system. Turret, slotted, wrapost and pin types are available. They are commonly fastened to printed circuit boards by being press-fit, swaged (riveted) or soldered.

PCB pins serve not only as a conductive path for an electrical circuit, but provide strength to an assembly module as a mechanical interface. Mill-Max Mfg. Corp. has developed thousands of state-of-the-art "basic pin" designs, featuring pin barrel geometries for our customers who require outside-the-box solutions to their interconnect needs.





In addition to the products found on the following pages Mill-Max offers the following stock materials and diameters available for manufacture:

BRASS Alloy 360, 1/2 hard: .062/.072/.078/.093/.125/

.156/.187/.250 diameters

BRASS Alloy 360, 1/4 hard: .072/.078 diameters

BRASS TUBING: .072 O.D.x.020 I.D./ .072 O.D.x.025 I.D. PHOSPHOR BRONZE Alloy 544: .062/.072/.078 diameters

TELLURIUM COPPER Alloy 145: .079/.093/.125/

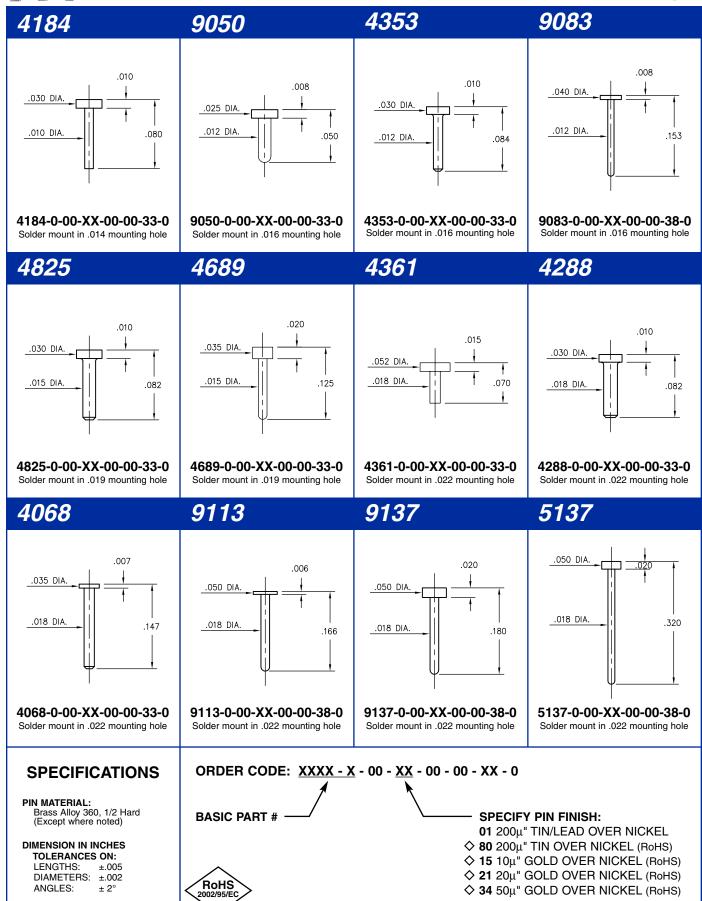
.156 diameters

Mill-Max will gladly quote application specific products. Please complete the specification sheet on page 213 or send us your own drawings. We assure you a fast response.



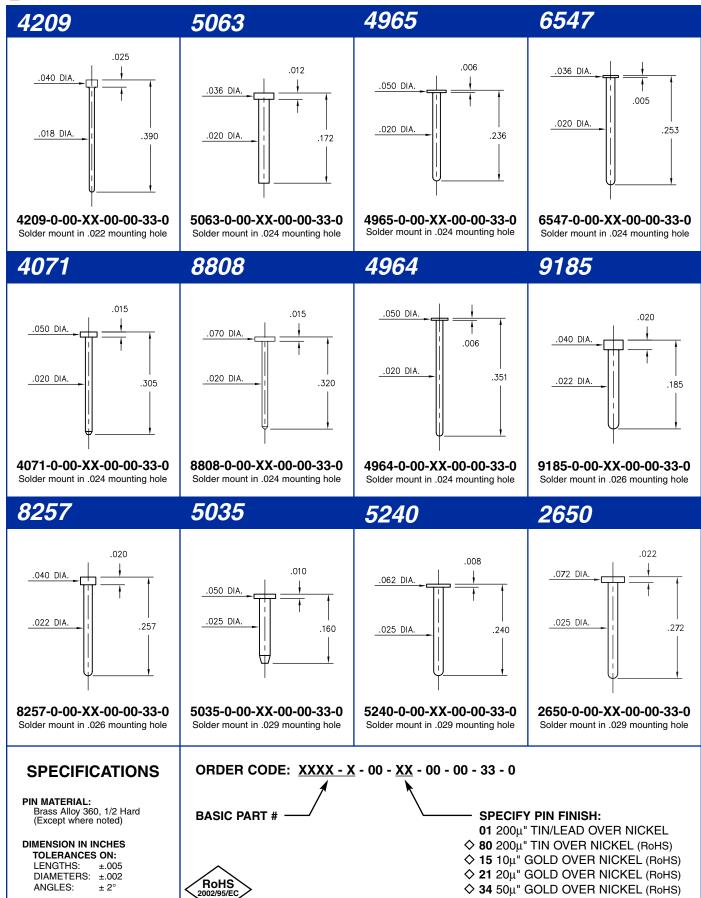






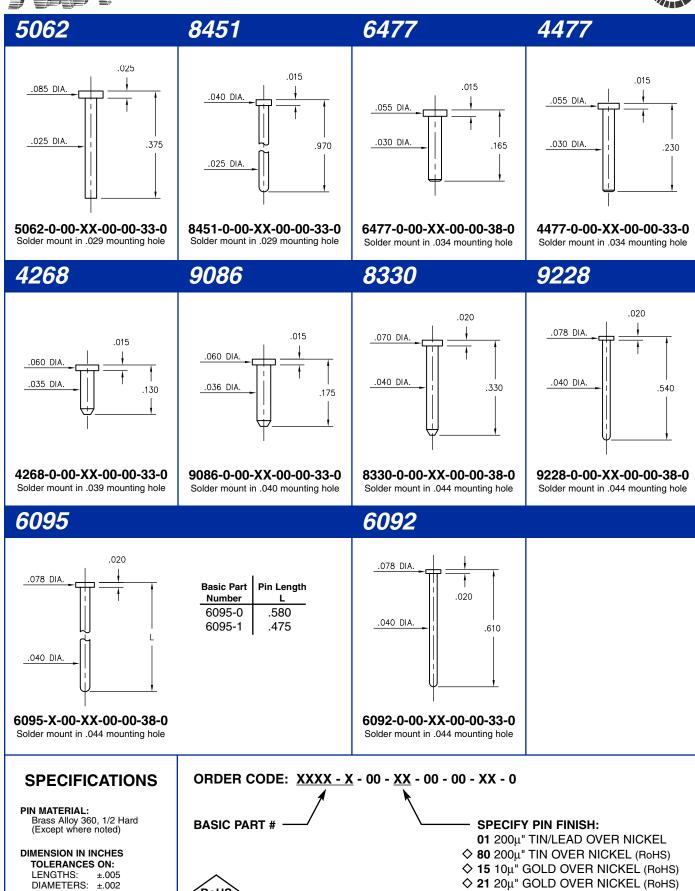












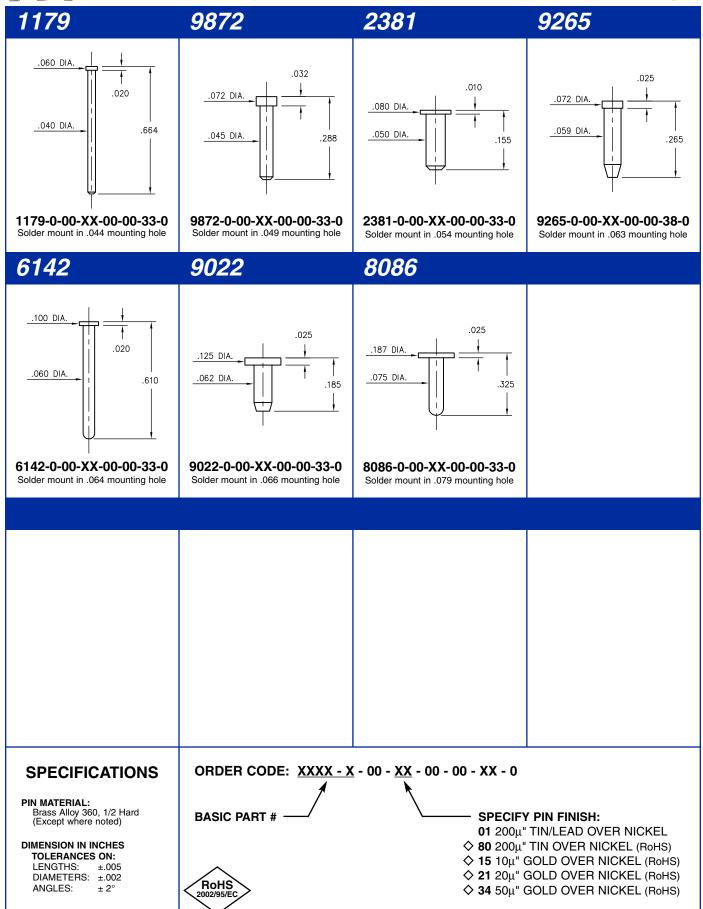
ANGLES:

RoHS

♦ 34 50µ" GOLD OVER NICKEL (RoHS)

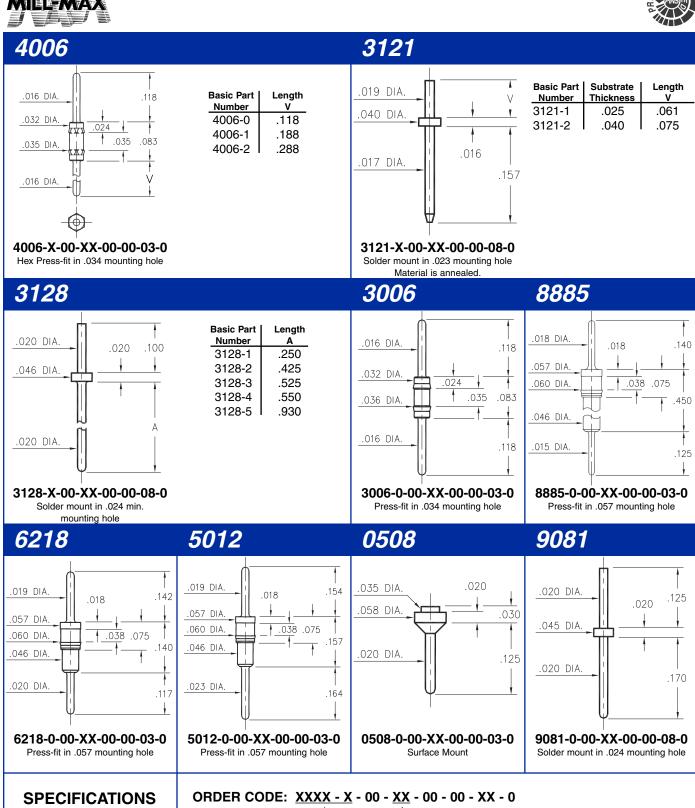












PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except where noted)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

BASIC PART #

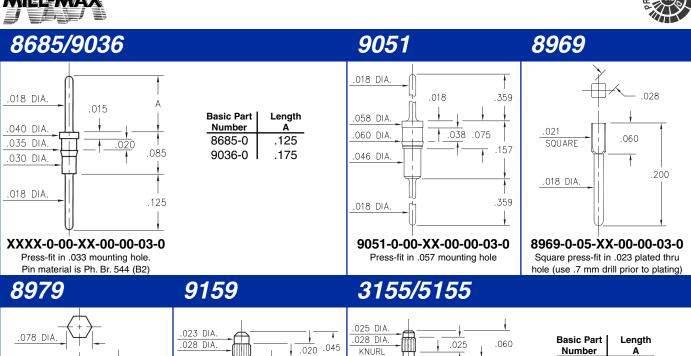
RoHS

SPECIFY PIN FINISH:

- 01 200μ" TIN/LEAD OVER NICKEL
- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)







8979-0-00-XX-00-00-03-0

.040 DIA.

HOLE

.0375 DIA.

_.035 DIA.

(3X)

.0375 DIA.

.012 DIA.

.020 .045 .045 DIA. .010 .010 .018 DIA. .156

9159-0-00-XX-00-00-03-0 Press-fit in .026 mounting hole

KNURL .045 DIA .050 .015 .018 DIA.

X155-0-00-XX-00-00-03-0 Press-fit in .026 mounting hole Pin material is Ph. Br. 544 (B2)

Hex press-fit in .074 plated thru hole



.100

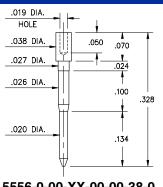
200 .400

.100

.075

.060

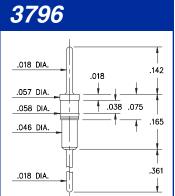
381



5556-0-00-XX-00-00-38-0 Wire termination

.018 DIA .142 .018 .057 DIA .038 .075 .058 DIA. .165 .046 DIA .205 .018 DIA.

3790-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole



3155-0

5155-0

.180

.130

3796-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

SPECIFICATIONS

4194-0-00-XX-00-00-08-0

Wire termination and

Press-fit in .036 hole

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except where noted)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 0X - XX - 00 - 00 - XX - 0

BASIC PART #



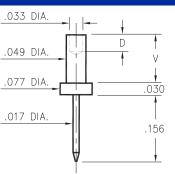
SPECIFY PIN FINISH:

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS) ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)



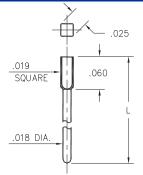






Basic Part Number	Board Thick- ness	Length V	Length D
3116-1	.031	.051	.035
3116-2	.062	.082	.062
3116-3	.094	.113	.062
3116-4	.125	.145	.062

5435



Basic Part	Length
Number	L
5435-0	.303
5435-1	.200
5435-2	.413

5435-X-05-XX-00-00-03-0

Square press-fit in .022 plated thru hole

3116-X-00-XX-00-00-08-0

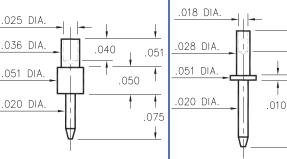
Swage mount in .052 hole

3135

3210

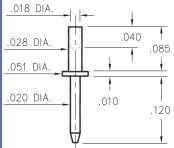


3147



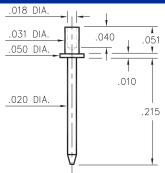
3135-1-00-XX-00-00-08-0

Swage mount in .040 hole. For .031 thick board.



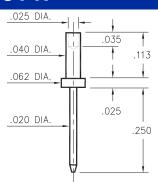
3210-2-00-XX-00-00-08-0

Swage mount in .031 hole. For .062 thick board.



3129-1-00-XX-00-00-08-0

Swage mount in .035 hole. For .031 thick board.



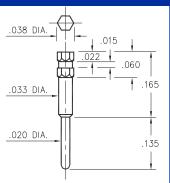
3147-3-00-XX-00-00-08-0

Swage mount in .043 hole. For .094 thick board.

4366

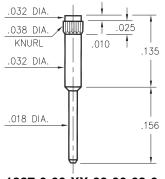
1267

1130



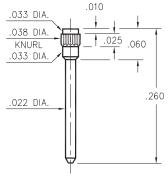
4366-0-00-XX-00-00-03-0

Hex press-fit in .034 plated thru hole



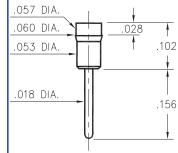
1267-0-00-XX-00-00-03-0

Press-fit in .035 mounting hole



7827-0-00-XX-00-00-03-0

Press-fit in .035 mounting hole



1130-0-00-XX-00-00-03-0

Press-fit in .057 mounting hole Pin material is Ph Br. 544 (B2)

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except Swage pins which are annealed)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005
DIAMETERS: ±.002 ANGLES: $\pm 2^{\circ}$

BASIC PART

ORDER CODE: XXXX - X - 0X - XX - 00 - 00 - XX - 0

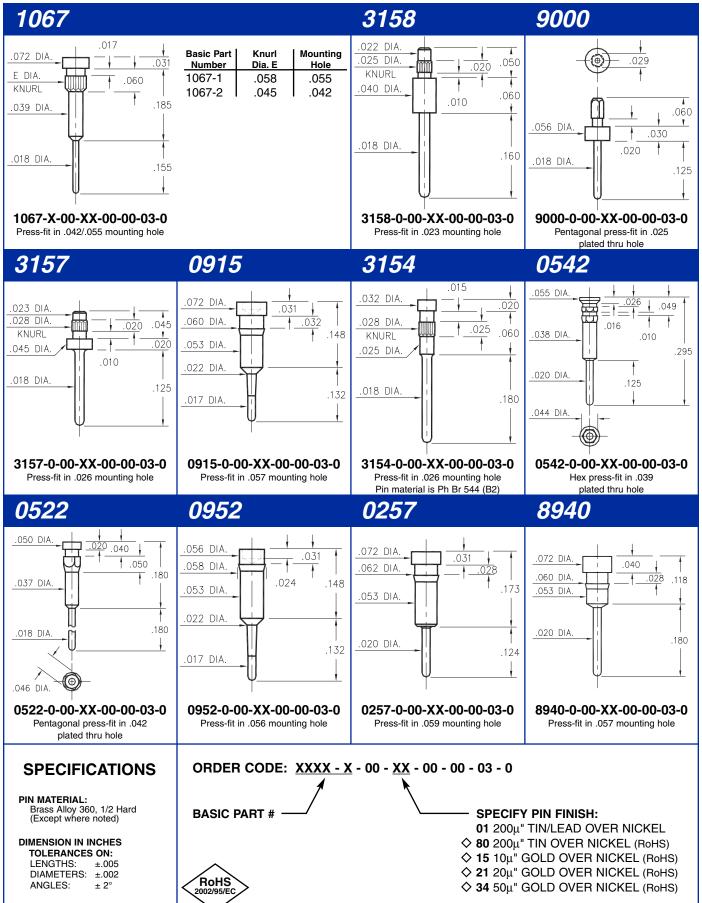
RoHS

SPECIFY PIN FINISH: 01 200μ" TIN/LEAD OVER NICKEL

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10μ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)

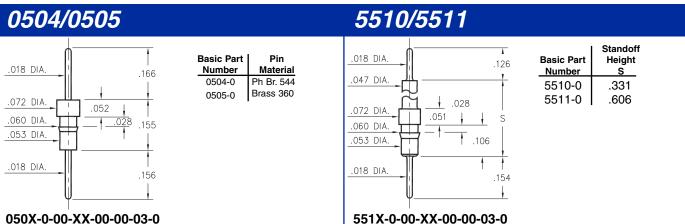


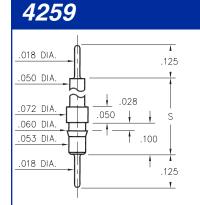








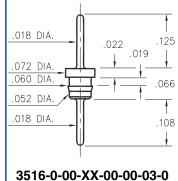




Press-fit in .057 mounting hole

Basic Part Number	Standoff Height S
4259-1	.210
4259-2	.335
4259-3	.585
4259-4	.835

3404



Press-fit in .057 mounting hole

3516

.025 DIA. .130
.071 DIA. .059 DIA. .263
.054 DIA. .020 DIA. .145

Press-fit in .056 mounting hole

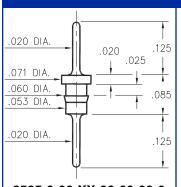
8859

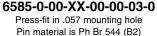
4259-X-00-XX-00-00-03-0Press-fit in .057 mounting hole

6585

3516-0-00-XX-00-00-03-Press-fit in .057 mounting hole

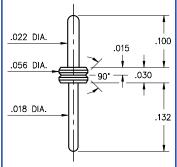
3169





.018 DIA. .142
.072 DIA. .035 | .131
.053 DIA. .121

3404-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole



3169-0-00-15-00-00-03-0 V-Groove Header Pin Also available on Kapton Tape

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except where noted)

DIMENSION IN INCHES TOLERANCES ON:

 $\begin{array}{ll} \text{LENGTHS:} & \pm .005 \\ \text{DIAMETERS:} & \pm .002 \\ \text{ANGLES:} & \pm 2^{\circ} \end{array}$

ORDER CODE: <u>XXXX - X</u> - 00 - <u>XX</u> - 00 - 00 - 03 - 0

BASIC PART # _____ SI



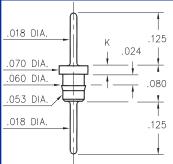
SPECIFY PIN FINISH:

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10μ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- \diamondsuit 34 50 μ " GOLD OVER NICKEL (RoHS)

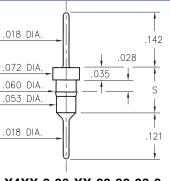








Basic Part Number	Length K	
1752-0	.020	
6458-0	.035	



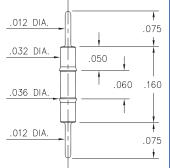
Basic Part Length Number S 3413-0 .118 8404-0 .131

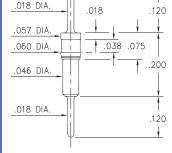
XXXX-0-00-XX-00-00-03-0

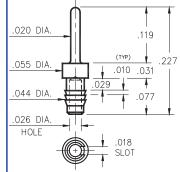
Press-fit in .057 mounting hole

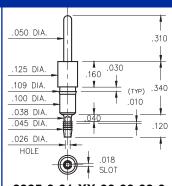
X4XX-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

2617 8995 9075 9218









9075-0-00-XX-00-00-03-0

Press-fit in .034 mounting hole

9218-0-00-XX-00-00-03-0

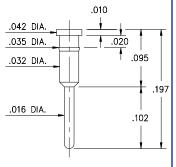
Press-fit in .057 mounting hole

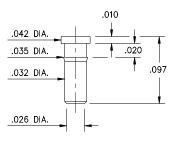
2617-0-01-XX-00-00-03-0 Compliant press-fit in .040 ±.003 hole. For .060 \rightarrow .100 thick board

8995-0-01-XX-00-00-03-0 Compliant press-fit in .040 ±.003 hole. For $.060 \rightarrow .100$ thick board

1933

1935





1933-0-00-XX-00-00-03-0

Press-fit in .034 mounting hole

1935-0-00-XX-00-00-03-0

Press-fit in .034 mounting hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except where noted)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ±2°

ORDER CODE: XXXX - X - 0X - XX - 00 - 00 - 03 - 0

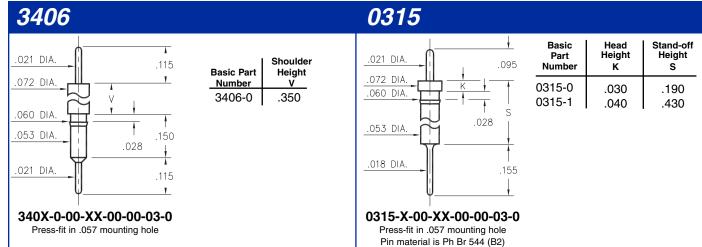
BASIC PART # SPECIFY PIN FINISH:

RoHS

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)

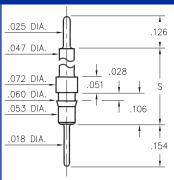






H DIA. .126 .072 DIA. .063 DIA. .053 DIA. .053 DIA. .106

	Pin
Basic Part	Diameter
Number	Н
5503-0	.025
5509-0	.018



5504/5505

Basic Part Number	Standoff Height S
5504-0	.331
5505-0	606

550X-0-00-XX-00-00-03-0Press-fit in .057 mounting hole

.154

.018 DIA

550X-0-00-XX-00-00-03-0Press-fit in .057 mounting hole

5011

.018 DIA. .142 .072 DIA. .060 DIA. .159

	Pin
Basic Part	Length
Number	Α
3409-1	.210
3409-2	.420



5113

.018 DIA

.072 DIA

.060 DIA

KNURL

.053 DIA

3409-X-00-XX-00-00-03-0Press-fit in .057 mounting hole **5011-0-00-X**Press-fit in .057

5**011-0-00-XX-00-00-03-0**Press-fit in .057 mounting hole

5113-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

.157

.120

.279

.126

SPECIFICATIONS ORDER CODE: <u>XXXX - X</u> - 00 - <u>XX</u> - 00 - 00 - 03 - 0

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except where noted)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ± 2°

ORDER CODE: <u>XXXX - X</u> - 00 - <u>XX</u> - 00 - 00 - 03 -

BASIC PART # SP

RoHS 2002/95/EC

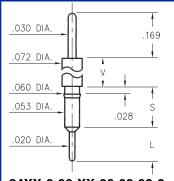
SPECIFY PIN FINISH: 01 200μ" TIN/LEAD OVER NICKEL

- ♦ 80 200μ" TIN OVER NICKEL (RoHS)
- ♦ 15 10μ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20μ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)



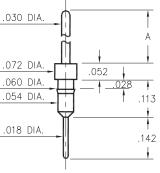






Basic Part Number	Shoulder Height V	Length S	Length L
3402-0	.052	.138	.115
3401-0	.100	.136	.115
3405-0	.169	.146	.115
3400-0	.481	.145	.115
3410-0	.934	.136	.124

3411



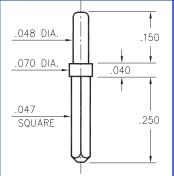
Basic Part Pin Length Number Α 3411-0 .417 3411-1 .217

3411-X-00-XX-00-00-03-0 Press-fit in .057 mounting hole

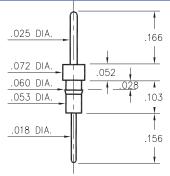
34XX-0-00-XX-00-00-03-0

Press-fit in .057 mounting hole

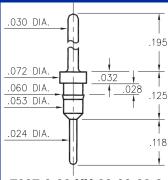
0290 5016 0600 7007



0600-0-05-XX-00-00-01-0 Solder mount in .052 mounting hole

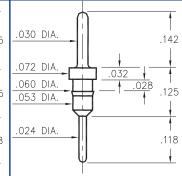


0290-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole



7007-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

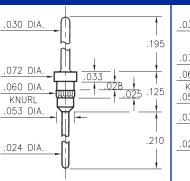
8919



5016-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

3077

5005 5107



5005-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

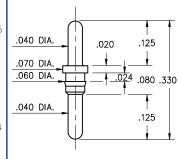
.030 DIA .195 .072 DIA .060 DIA .120 KNURL .053 DIA .279 .034 DIA .024 DIA .126

5107-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

RoHS

.024 DIA 165 .028 071 DIA .030 .060 DIA .101 .052 DIA .019 DIA. .174 8919-0-00-XX-00-00-03-0

Press-fit in .057 mounting hole



3077-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except where noted)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 0X - XX - 00 - 00 - XX - 0

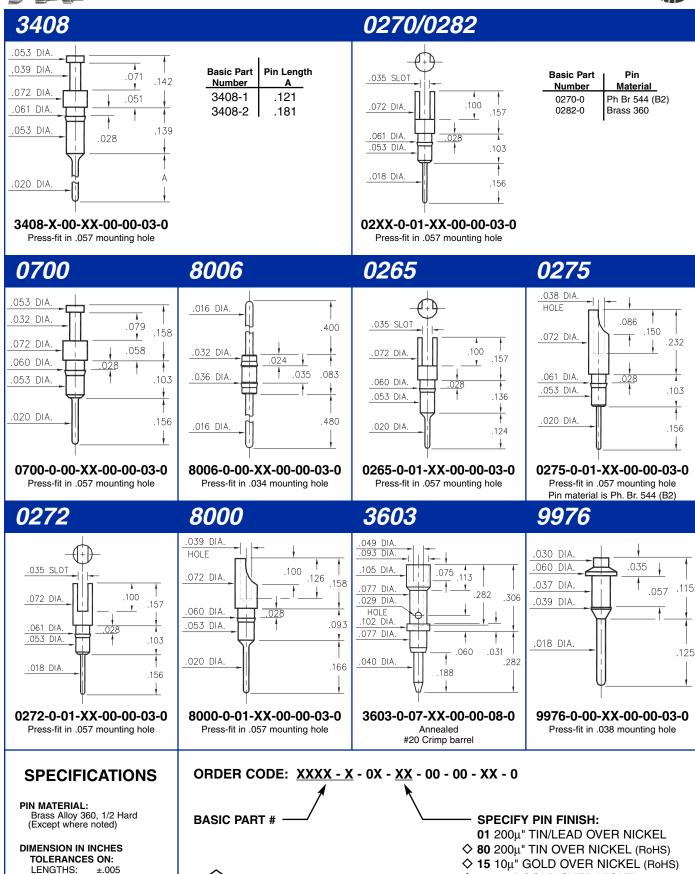


SPECIFY PIN FINISH:

- 01 200μ" TIN/LEAD OVER NICKEL
- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)







RoHS

DIAMETERS: ±.002

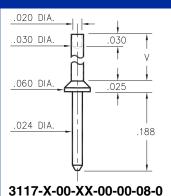
ANGLES:

♦ 21 20µ" GOLD OVER NICKEL (RoHS)

♦ 34 50µ" GOLD OVER NICKEL (RoHS)



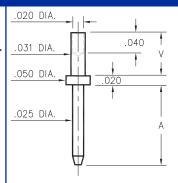




Swage mount in .035 hole

Basic Part Number	Board Thickness	Length V
3117-1	.031	.047
3117-2	.062	.078
3117-3	.094	.110
3117-4	.125	.141

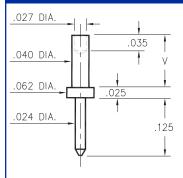
3114/3115



Basic Part Number	Board Thick- ness	Length A	Length V
3114-1	.031	.150	.051
3114-2	.062	.150	.082
3115-1	.031	.300	.051
3115-2	.062	.300	.082

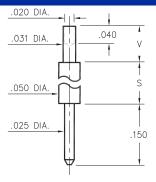
311X-X-00-XX-00-00-08-0 Swage mount in .035 mounting hole

3112



Basic Part Board Number Thickness		Length V
3112-1	.031	.051
3112-2	.062	.082
3112-3	.094	.113

3118/3119



Basic Part Number	Board Thick- ness	Length S	Length V
3118-1	.031	.170	.051
3118-2	.062	.170	.082
3119-1	.031	.420	.051
3119-2	.062	.420	.082

3112-X-00-XX-00-00-08-0

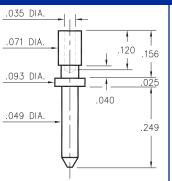
Swage mount in .043 hole

311X-X-00-XX-00-00-08-0

3131

Swage mount in .035 hole

3139



3139-0-00-XX-00-00-08-0 Wire Termination

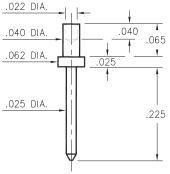
.049 DIA .093 DIA .105 DIA. .075 .113 .077 DIA .282 .306 .029 DIA. HOLE .102 DIA .077 DIA. .060 .031 .062 DIA .282 .188

3602

RoHS

3602-0-07-XX-00-00-08-0

Annealed #20 Crimp barrel



3131-1-00-XX-00-00-08-0 Swage mount in .043 hole

.072 DIA. .060 DIA. .313 .053 DIA

0912-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

SPECIFICATIONS

PIN MATERIAL: Brass Alloy 360, 1/2 Hard (Except Swage pins which are annealed)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005
DIAMETERS: ±.002 ANGLES: $\pm 2^{\circ}$

ORDER CODE: XXXX - X - 0X - XX - 00 - 00 - XX - 0



SPECIFY PIN FINISH:

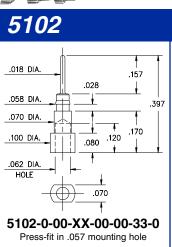
01 200μ" TIN/LEAD OVER NICKEL

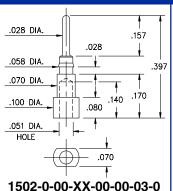
0912

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)

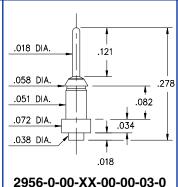






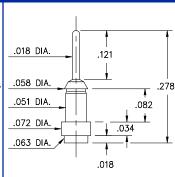


1502



Surface mount

2956-0



2956-1

2956-1-00-XX-00-00-03-0 Surface mount

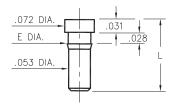
0259/0286/1941 8876

.165

.217

.019 DIA .140 .071 DIA .285 .030 .059 DIA .053 DIA .115

Press-fit in .057 mounting hole



Basic Barb Mount-Part Length Dia. ina Number E Hole .173 0259-0 .062 .059.115 0286-0 .060 .057 1941-0 .169 .058 .057

.072 DIA. .030 .059 DIA. .165 KNURL .053 DIA .276 .034 DIA. .020 DIA. .126

1938-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

8876-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

02XX-0-00-XX-00-00-03-0 Press-fit in .057/.059 mounting hole

1942

.020 DIA

RoHS

1940

ШШ

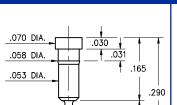
.072 DIA.

.059 DIA.

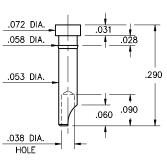
KNURI

.053 DIA

.018 DIA.

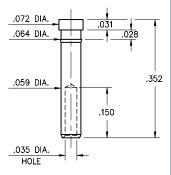


3024



3000

1938



1940-0-00-XX-00-00-03-0

Press-fit in .057 mounting hole

1942-0-00-XX-00-00-03-0

Press-fit in .057 mounting hole

3024-0-01-XX-00-00-03-0 Press-fit in .057 mounting hole

3000-0-00-XX-00-00-03-0 Press-fit in .061 mounting hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except Swage pins which are annealed)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ± 2°

ORDER CODE: XXXX - X - 0X - XX - 00 - 00 - XX - 0



.125

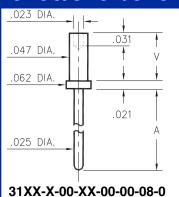
SPECIFY PIN FINISH:

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)





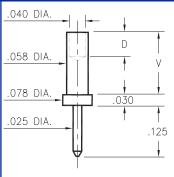
3130/3134/3151



Swage mount in .052 hole

Basic Part Number	Board Thick- ness	Length A	Length V
3134-1	.031	.079	.051
3134-2	.062	.079	.082
3134-3	.094	.079	.113
3134-4	.125	.079	.145
3130-1	.031	.179	.051
3130-2	.062	.179	.082
3130-3	.094	.179	.113
3130-4	.125	.179	.145
3151-1	.031	.479	.051
3151-2	.062	.479	.082
3151-3	.094	.479	.113
3151-4	.125	.479	.145
			ı

3113

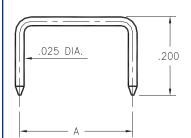


Basic Part Number	Board Thick- ness	Length V	Depth D
3113-1	.031	.062	.040
3113-2	.062	.094	.062
3113-3	.094	.125	.062
3113-4	.125	.156	.062

3113-X-00-XX-00-00-08-0 Swage mount in .062 hole

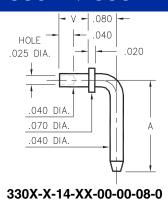
3360

3620



Basic Part Number	Pin Centers
3360-1	.200
3360-2	.250
3360-3	.300
3360-4	.400
3360-5	500

3301 ⇒ *3304*



Specify board thickness Swage mount in .043 hole

Number	Α
3301-X	.257
3302-X	.357
3303-X	.375
3304-X	.562

Basic Part

- X -**Board** Length Thickness .031 .051 2 .062 .082 3 .094 .113

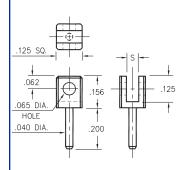
Pin Centers

3360-X-14-XX-00-00-08-0

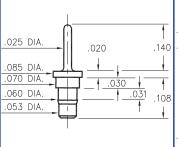
Shorting Jumper

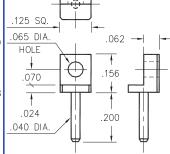
0940





Basic Part Number	Board Thickness	Slot S
3620-1	.031	.047
3620-2	.062	.075





0940-0-00-XX-00-00-03-0

Press-fit in .057 mounting hole

3621-0-32-XX-00-00-08-0 Board edge rivet mount

SPECIFICATIONS

3620-X-32-XX-00-00-08-0

Board edge rivet mount

PIN MATERIAL:
Brass Alloy 360, 1/2 Hard
(Except Swage pins which are annealed)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ANGLES: ±2°

ORDER CODE: XXXX - X - XX - XX - 00 - 00 - XX - 0

BASIC PART #

RoHS

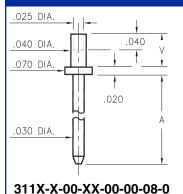
SPECIFY PIN FINISH:

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- \diamondsuit 34 50 μ " GOLD OVER NICKEL (RoHS)



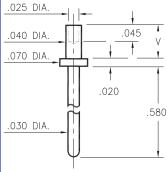






Basic Part Number	Board Thick- ness	Length A	Length V
3110-1	.031	.150	.051
3110-2	.062	.150	.082
3110-3	.094	.150	.113
3111-1	.031	.300	.051
3111-2	.062	.300	.082
3111-3	.094	.300	.113

3150

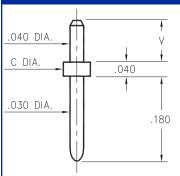


Basic Part Number	Board Thickness	Length V
3150-1	.031	.051
3150-2	.062	.082

3150-X-00-XX-00-00-08-0Swage mount in .043 mounting hole

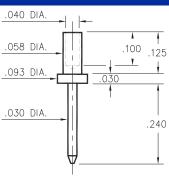
Swage mount in .043 hole

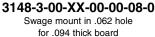
3136/3137



Basic Part Number	Flange Dia. C	Board Thick- ness	Length V
3136-1	.078	.062	.082
3136-2		.094	.110
3136-3		.125	.145
3137-1	.062	.062	.082
3137-2		.094	.110
3137-3		.125	.145
3137-4		.156	.185

3148





.075 DIA. .030 .047 .190 .030 DIA. .030 DIA. .120 .070 DIA. .120 .070 DIA. .120 .070 DIA. .120 .070 DIA. .120

8815

Hex press-fit in .066
plated thru hole

313X-X-00-XX-00-00-08-0

Solder mount in .043 mounting hole

6821

ام

.125

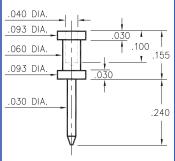
5601

5602

.070 DIA. .015 .015 .020 .020 .030 DIA. .030 DIA.

6821-0-00-XX-00-00-08-0
Wire Termination

3132



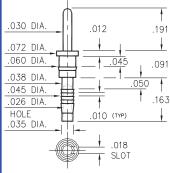
3132-0-00-XX-00-00-08-0

Wire Termination Material is annealed

.030 DIA .012 191 .072 DIA .060 DIA .045 .091 .038 DIA 042 .045 DIA 124 .026 DIA HOLE .010 (TYP) .035 DIA .018 SLOT

5601-0-01-XX-00-00-03-0

Compliant press-fit in .040±.003 plated hole. For .060→.100 thick board.



5602-0-01-XX-00-00-03-0

Compliant press-fit in .040±.003 plated hole. For .090→.130 thick board.

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except Swage pins which are annealed)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ± 2°

ORDER CODE: <u>XXXX - X</u> - 0X - <u>XX</u> - 00 - 00 - XX - 0

BASIC PART #

RoHS 2002/95/EC

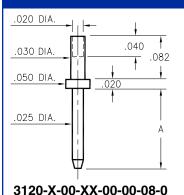
- SPECIFY PIN FINISH:

- ♦ 80 200μ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20μ" GOLD OVER NICKEL (RoHS)
- \diamondsuit 34 50 μ " GOLD OVER NICKEL (RoHS)

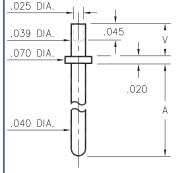








$3122 \Rightarrow 3153$



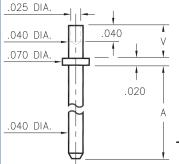
Basic Part Number	Pin Length
3153-X	.180
3141-X	.230
3122-X	.280
3149-X	.380
3123-X	.580
3140-X	.780
3124-X	.880

31XX-X-00-XX-00-00-08-0 Swage mount in .043 hole

- X -	Board Thickness	Length V
1	.031	.051
2	.062	.082

Swage mount in .034 mounting hole

$3101 \Rightarrow 3106$



Basic Part Number	Pin Length A
3101-X	.150
3102-X	.188
3103-X	.300
3104-X	.500
3105-X	.750
3106-X	1.000

Basic Part

Number

3120-1

3120-2

Length

Α

.205

.250

- X -	- X - Board Thickness	
1	.031	.051
2	.062	.082
3	004	112

Pin Length

.170

.420

Length

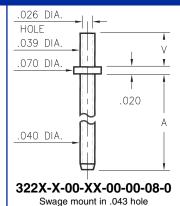
.051

.082

.113

RoHS

$3221 \Rightarrow 3223$



Number	<u> </u>
3221-X	.100
3222-X	.150
3223-X	.300

Basic Part | Pin Length

- X -	Board	Length
	Thickness	٧
1	.031	.051
2	.062	.082
3	.094	.113

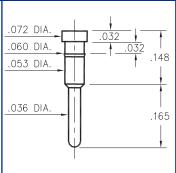
310X-X-00-XX-00-00-08-0 Swage mount in .043 hole

3125/3126

.025 DIA **Basic Part** .040 DIA .040 Number ٧ 3125-X .071 DIA. 3126-X

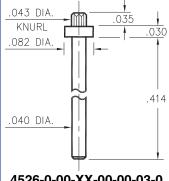
	3120-X	1 .420
s 	- X -	Board Thickness
┲╵───┼	1	.031
	2	.062
.150	3	.094

0995



0995-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

4526



4526-0-00-XX-00-00-03-0

Press-fit in .040 mounting hole

SPECIFICATIONS

312X-X-00-XX-00-00-08-0

Swage mount in .043 hole

.040 DIA.

PIN MATERIAL:
Brass Alloy 360, 1/2 Hard
(Except Swage pins which are annealed)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ± 2°

ORDER CODE: XXXX - X - 00 - XX - 00 - 00 - XX - 0



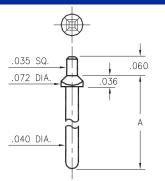
SPECIFY PIN FINISH:

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)



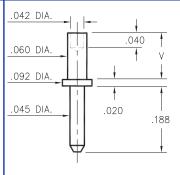


8600/8954/8955



Pin Length A
.400
.850
1.200
.136
.655

3159



Basic Part Number	Board Thickness	Length V
3159-1	.031	.062
3159-2	.062	.094
3159-3	.094	.125
3159-4	.125	.156

3159-X-00-XX-00-00-08-0

Swage mount in .064 hole

8XXX-X-05-XX-00-00-03-0

Square press-fit in .043 plated thru hole

.060

8952

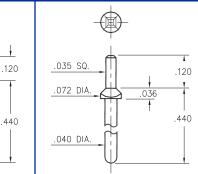
.064 SQ.

.125 DIA

.080 DIA.

8953

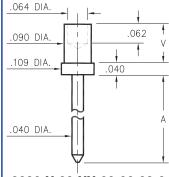
3230





8953-0-05-XX-00-00-03-0

Square press-fit in .047 plated thru hole



3230-X-00-XX-00-00-08-0

Swage mount in .094 hole

3146

3142

3145

Basic

Number

3230-1

3230-2

3230-3

3230-4

Part

Board Thick-

ness

.031

.062

.094

.125

Length

202

.228

.258

.288

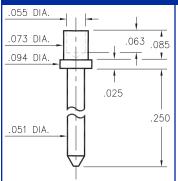
Length

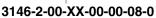
.065

.095

.125

.155



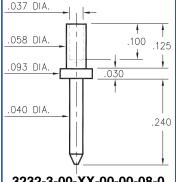


Swage mount in .076 hole. For .062 thick board

.040 DIA .058 DIA .062 .094 .078 DIA .040 DIA. .150

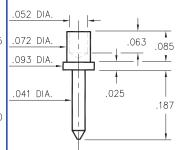
3142-2-00-XX-00-00-08-0

Swage mount in .062 hole. For .062 thick board



3232-3-00-XX-00-00-08-0

Swage mount in .062 hole. For .094 thick board



3145-2-00-XX-00-00-08-0

Swage mount in .076 hole. For .062 thick board

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard (Except Swage pins which are annealed)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ANGLES: $\pm 2^{\circ}$

ORDER CODE: XXXX - X - 0X - XX - 00 - 00 - XX - 0

RoHS

BASIC PART #

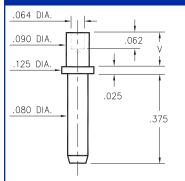
SPECIFY PIN FINISH:

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)



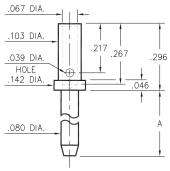






Basic Part Number	Board Thickness	Length V
3231-2	.062	.094
3231-3	.094	.125
3231-4	.125	.156

3609



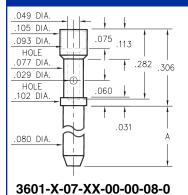
Basic Part Number	Pin Length A
3609-1	.200
3609-2	.375
3609-3	.500

3609-X-07-XX-00-00-08-0 #16A Crimp barrel

3231-X-00-XX-00-00-08-0

Swage mount in .094 hole.

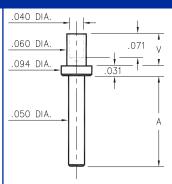
3601



#20A Crimp barrel

Basic Part Number	Pin Length A
3601-1	.200
3601-2	.375
3601-3	.500

3133/3138/3152



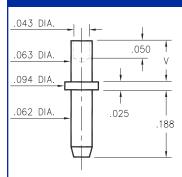
Basic Part Number	Pin Length A
3152-X	.094
3133-X	.219
3138-X	.282

Board Thickness	Length V
.031	.063
.062	.094
.094	.125
.125	.156
	.031 .062 .094

31XX-X-00-XX-00-00-08-0

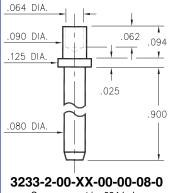
Specify board thickness Swage mount in .064 hole

3144



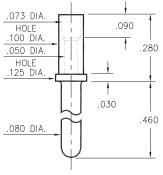
Basic Part Number	Board Thickness	Length V
3144-1	.031	.053
3144-2	.062	.084
3144-3	.094	.115

3233



Swage mount in .094 hole. For .062 thick board.

0520



0520-0-00-XX-00-00-03-0

Annealed #18 Gage crimp barrel

SPECIFICATIONS

3144-X-00-XX-00-00-08-0

Swage mount in .067 hole.

PIN MATERIAL:
Brass Alloy 360, 1/2 Hard
(Except Swage pins which are annealed)

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ANGLES: ±2°

ORDER CODE: XXXX - X - 0X - XX - 00 - 00 - XX - 0

BASIC PART #

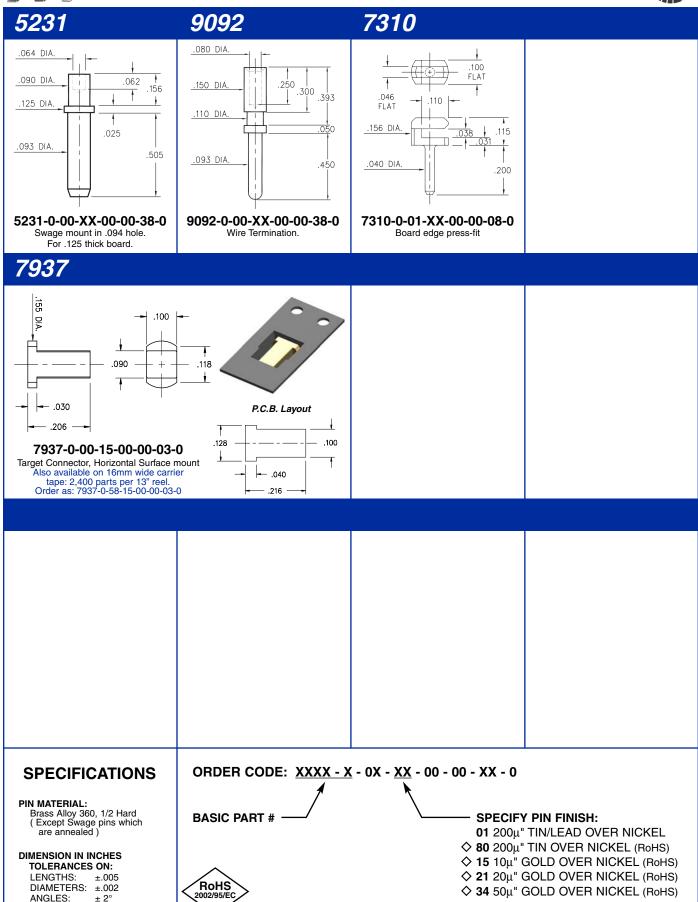


SPECIFY PIN FINISH:

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)
- ♦ 34 50µ" GOLD OVER NICKEL (RoHS)



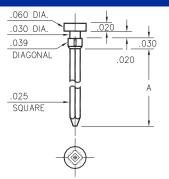




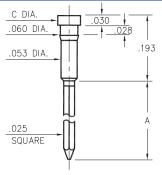








Basic	#	Wrapost
Part	of	Length
Number	Wraps	A
5275-1	1	.370
5275-2	2	.470
5275-3	3	.610



Basic	#	Wrapost	Head
Part	of	Length	Dia.
Number	Wraps	A	C
1012-1	1	.260	.072
1011-2	2	.360	
1010-3	3	.500	
1022-1	1	.260	.062
1021-2	2	.360	
1020-3	3	.500	

10XX-X-05-XX-00-00-01-0

Press-fit in .057 mounting hole

5275-X-05-XX-00-00-01-0

Square press-fit in .035 plated thru hole

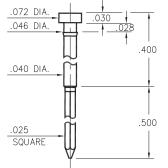
1124 1210 1215 1222

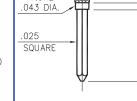
.010

.070 .120

.200

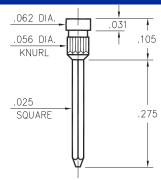
.030

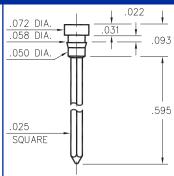




.045 DIA

KNURL





1215-3-05-XX-00-00-01-0

Press-fit in .043 mounting hole

1124-0-05-XX-00-00-01-0

Press-fit in .043 mounting hole

1210-0-05-XX-00-00-01-0

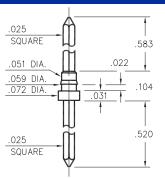
Press-fit in .053 mounting hole

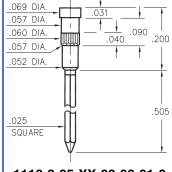
1222-0-05-XX-00-00-01-0 Press-fit in .055 mounting hole

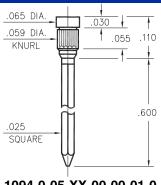
1221

1110

1094







1221-0-05-XX-00-00-01-0

Press-fit in .056 mounting hole

1110-3-05-XX-00-00-01-0

Press-fit in .057 mounting hole

1094-0-05-XX-00-00-01-0

Press-fit in .056 mounting hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ± 2°

ORDER CODE: XXXX - X - 05 - XX - 00 - 00 - 01 - 0

BASIC PART #

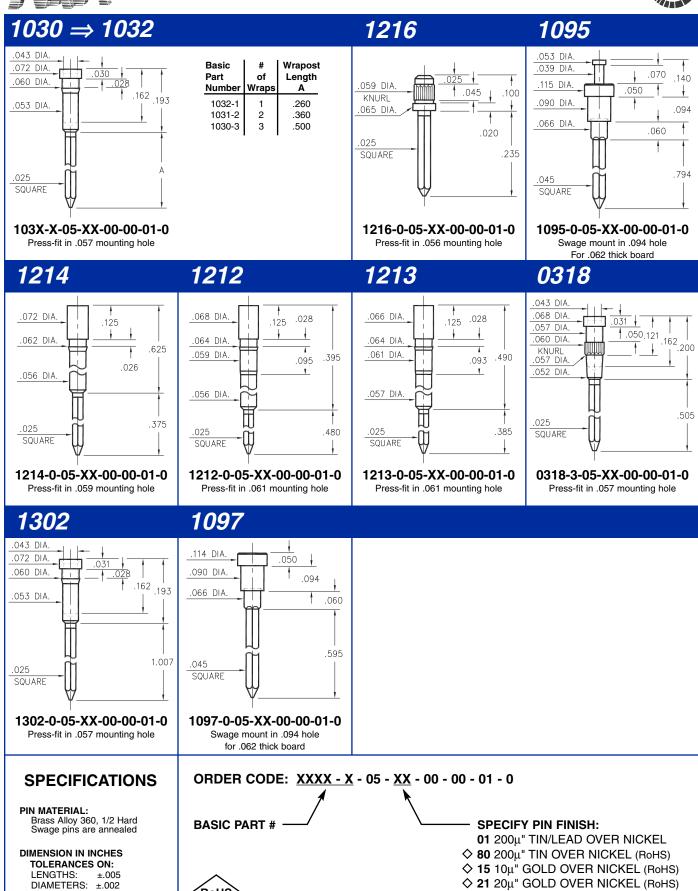


SPECIFY PIN FINISH:

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)





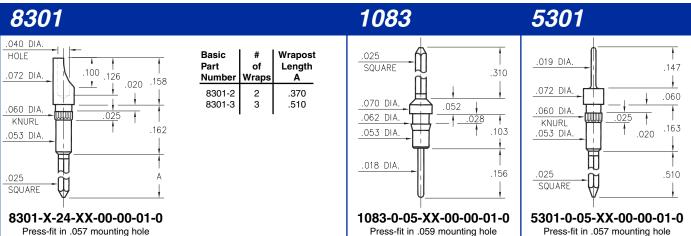


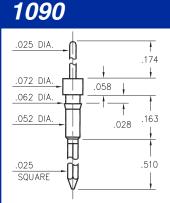
ANGLES:

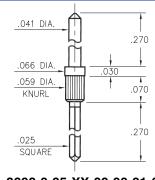
RoHS











8608

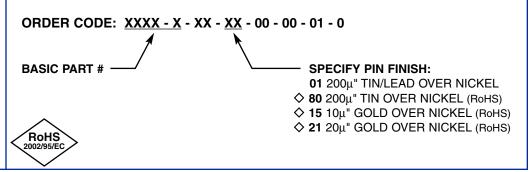
1090-0-05-XX-00-00-01-0 Press-fit in .059 mounting hole

8608-0-05-XX-00-00-01-0Press-fit in .056 mounting hole

SPECIFICATIONS

PIN MATERIAL: Brass Alloy 360, 1/2 Hard

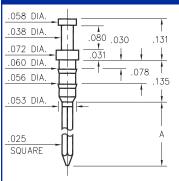
DIMENSION IN INCHES
TOLERANCES ON:
LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ± 2°





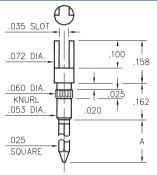






Basic	#	Wrapost
Part	of	Length
Number	Wraps	A
1096-2 1096-3	2	.381 .527

1106



Basic Wrapost Part of Length Number Wraps Α .370 1106-2 1106-3 3 .510

1106-X-23-XX-00-00-01-0

Press-fit in .057 mounting hole

1096-X-05-XX-00-00-01-0

Press-fit in .057 mounting hole

.030

.055

1093

.053 DIA

.038 DIA

.063 DIA

.059 DIA

KNURL

.054 DIA

.025

SQUARE

0730

.072 DIA

.060 DIA

KNURL

.053 DIA.

.025

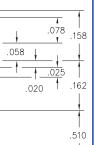
SQUARE

.070 .120

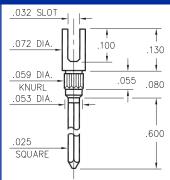
.080

.470

.033 DIA.



.040 SLOT .072 DIA. .080 .093 .056 DIA .048 .075 KNURL .047 DIA. .525 .025 SQUARE



1064

1093-0-05-XX-00-00-01-0

Press-fit in .056 mounting hole

0730-3-05-XX-00-00-01-0

Press-fit in .057 mounting hole

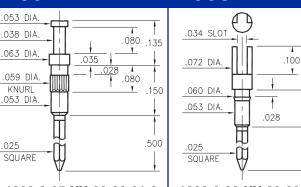
1122-0-22-XX-00-00-01-0 Press-fit in .053 mounting hole

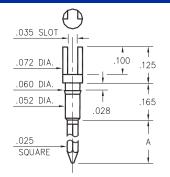
1064-0-23-XX-00-00-01-0 Press-fit in .056 mounting hole

1092

1068

$1070 \Rightarrow 1072$





Basic Wrapost Part of Length Number Wrap 1072-1 .260 1071-2 370 1070-3 3 .510

1092-0-05-XX-00-00-01-0

Press-fit in .056 mounting hole

1068-0-23-XX-00-00-01-0

Press-fit in .057 mounting hole

107X-X-23-XX-00-00-01-0

Press-fit in .057 mounting hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - XX - XX - 00 - 00 - 01 - 0

BASIC PART #

.158

.171

.390

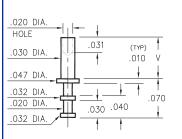
RoHS

SPECIFY PIN FINISH:

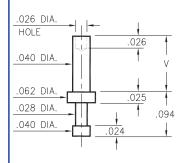
- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 15 10µ" GOLD OVER NICKEL (RoHS)
- ♦ 21 20µ" GOLD OVER NICKEL (RoHS)







21	3



- X -	Board Thick- ness	Length V
1	.031	.053
2	.062	.084
3	.094	.115
4	.125	.147

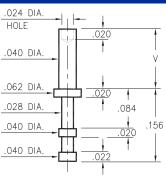
2111-X-00-XX-00-00-07-0

Swage mount in .033 hole

2113-X-00-XX-00-00-07-0

Swage mount in .043 hole

2108



- x -	Board Thick- ness	Length V
1	.031	.053
2	.062	.084
3	.094	.115

.125

Board

Thick-

ness

.031

.062

.094

Length

.053

.084

.115

- X -

1

2

3

.028 DIA. HOLE .031 .047 DIA .018 .064 DIA .028 DIA .063 .094 .041 DIA.

2324

2102

- X -	Board Thick- ness	Length V
5	.016	.035
1	.031	.054
2	.062	.084
3	.094	.115
4	.125	.147

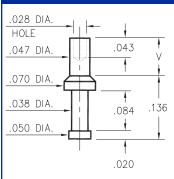
2108-X-00-XX-00-00-07-0

Swage mount in .043 hole

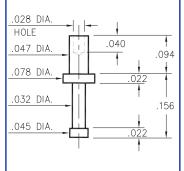
2102-X-00-XX-00-00-07-0

Swage mount in .052 hole

2109



- X -	Board Thick- ness	Length V
1	.031	.052
2	.062	.085



2109-X-00-XX-00-00-07-0

Swage mount in .052 hole

2324-2-00-XX-00-00-07-0

Swage mount in .052 hole for .062 thick board

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ± 2°

BASIC PART #

ORDER CODE: XXXX - X - 00 - XX - 00 - 00 - 07 - 0

SPECIFY PIN FINISH: 01 200μ" TIN/LEAD OVER NICKEL

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 44 300µ" SILVER OVER COPPER (RoHS)
- ♦ 50 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

RoHS



Board

Thick-

ness

031

.062

.094

.125

Length

.053

.094

.115

.147

.062

.094

.125

.156

- X -

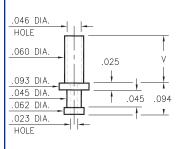
1

2

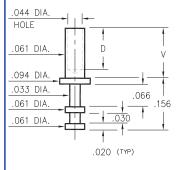
3



2312



2	2	3	0	8



Board - X -Thick-Length Depth ness D .054 .036 1 .031 .084 2 .062 066 3 .094 .115 096 .125 .147 .126

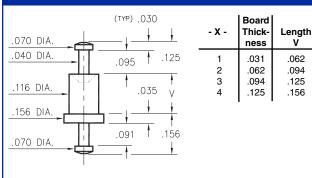
2312-X-00-XX-00-00-07-0

Swage mount in .064 hole

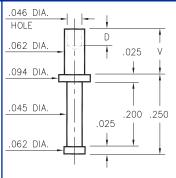
2308-X-00-XX-00-00-07-0

Swage in .064 mount hole

2707



2329



- X -	Board Thick- ness	Length V	Depth D
1	.031	.045	.045
2	.062	.094	
3	.094	.125	.062
4	.125	.156	

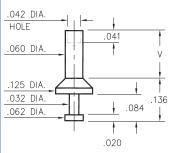
2707-X-00-XX-00-00-07-0

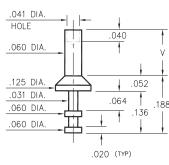
Swage mount in .120 hole

2329-X-00-XX-00-00-07-0

Swage mount in .067 hole

2510/2513





- X -	Thick- ness	Length V
1	.031	.062
2	.062	.094
3	.094	.125
4	.125	.156

Board

2510-X-00-XX-00-00-07-0

Swage mount in .064 hole

2513-X-00-XX-00-00-07-0

Swage mount in .064 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ± 2° ANGLES:

ORDER CODE: XXXX - X - 00 - XX - 00 - 00 - 07 - 0

BASIC PART #

RoHS

SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 44 300µ" SILVER OVER COPPER (RoHS)

♦ 50 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

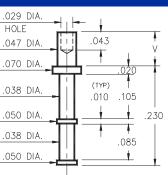


2333

2533



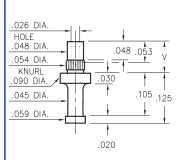




- X -	Board Thick- ness	
1	.031	.049

.082

.062



- X -	Board Thick- ness	Length V
1	.078	.103
2	.062	.087
3	.047	.072

2333-X-00-XX-00-00-07-0

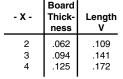
Press-fit and swage in .052 mounting hole

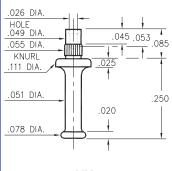
2821

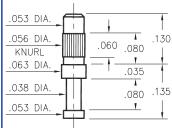
2110-X-00-XX-00-00-07-0

Swage mount in .052 hole

.089 DIA HOLE .122 DIA. .187 DIA .130 DIA. .203 .152 DIA 422 .030 .030 .152 DIA.







2101

2821-X-00-XX-00-00-07-0

Swage mount in .125 hole

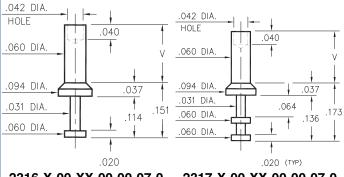
2533-0-00-XX-00-00-07-0

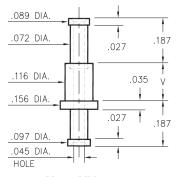
Press-fit & swage in .052 mtg. hole. For .062 thick board

2101-3-00-XX-00-00-07-0

Press-fit in .053 mtg. hole. For .062 to .094 thick board

2316/2317/2708





- X - Thick ness		Lengti V
1	.031	.062
2	.062	.094
3	.094	.125
4	.125	.156

2316-X-00-XX-00-00-07-0

Swage mount in .064 hole

2317-X-00-XX-00-00-07-0

Swage mount in .064 hole

2708-X-00-XX-00-00-07-0

Swage mount in .120 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES

TOLERANCES ON: LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 00 - XX - 00 - 00 - 07 - 0

BASIC PART # SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 44 300µ" SILVER OVER COPPER (RoHS)

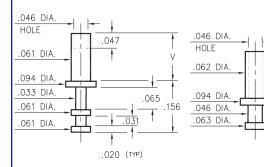
♦ 50 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

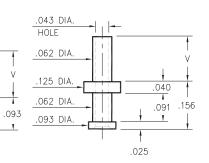






2348/2301/2506





- X -	Board Thick- ness	Length V
1	.031	.053
2	.062	.084
3	.094	.115
4	.125	.147

2348-X-00-XX-00-00-07-0

Swage mount in .064 hole

2301-X-00-XX-00-00-07-0

Swage mount in .067 hole

.025

.045

2506-X-00-XX-00-00-07-0

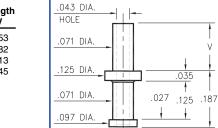
Swage mount in .067 hole

2310

.051 DIA. .082 .082 .094 DIA. .062 .051 DIA. .062 .051 DIA. .062 .051 DIA. .062 .020 (TYP)

- X -	Thick- ness	Length V
1	.031	.053
2	.062	.082
3	.094	.113
4	.125	.145

Board



2505

- X -	Board Thick- ness	Length V
1	.031	.062
2	.062	.093
3	.094	.125
4	.125	.156

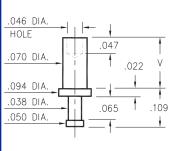
2310-X-00-XX-00-00-07-0

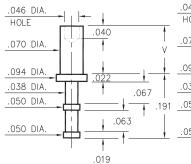
Swage mount in .067 hole

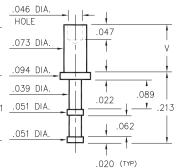
2505-X-00-XX-00-00-07-0

Swage mount in .076 hole

2325/2355/2365







Board - X -Thick-Length ness .053 1 .031 2 .062 .084 3 .094 .115 .125 .147

2325-X-00-XX-00-00-07-0

Swage mount in .073 hole

2355-X-00-XX-00-00-07-0

Swage mount in .073 hole

2365-X-00-XX-00-00-07-0

Swage mount in .076 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES

TOLERANCES ON:
LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ± 2°

ORDER CODE: <u>XXXX - X</u> - 00 - <u>XX</u> - 00 - 00 - 07 - 0

BASIC PART #

RoHS

SPECIFY PIN FINISH:

SPECIFY PIN FINISH:01 200μ" TIN/LEAD OVER NICKEL

 \diamondsuit **80** 200 μ " TIN OVER NICKEL (RoHS)

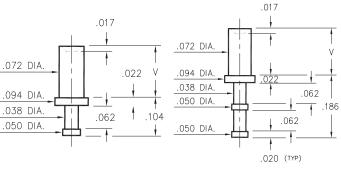
♦ 44 300μ" SILVER OVER COPPER (RoHS)
♦ 50 300μ" ELECTRO-SOLDER (RoHS)

· (60/40 SnPb)





2304/2305



- X - Board Thick-ness V

1 .031 .051
2 .062 .082
3 .094 .113
4 .125 .145

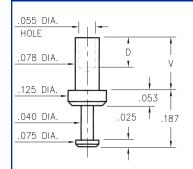
2304-X-00-XX-00-00-07-0

Swage mount in .076 hole

2305-X-00-XX-00-00-07-0

Swage mount in .076 hole

2503 2704



- X -	Board Thick- ness	Length V	Depth D
1	.031	.078	.068
2	.062	.109	
3	.094	.141	.098
4	.125	.172	

.055 DIA. HOLE	- -
.078 DIA.	Į , ,
.156 DIA.	.046
.078 DIA.	(TYP) .016 .138
.109 DIA.	.328
.109 DIA.	.112

- X -	Board Thick- ness	Length V
1	.031	.075
2	.062	.105
3	.094	.135
4	.125	.165

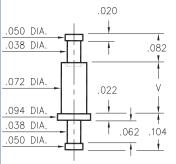
2503-X-00-XX-00-00-07-0

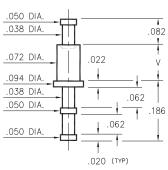
Swage mount in .082 hole

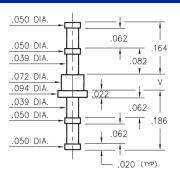
2704-X-00-XX-00-00-07-0

Swage mount in .082 hole

2306/2307/2311







- X -	Board Thick- ness	Length V
1	.031	.051
2	.062	.082
3	.094	.113
4	.125	.145

2306-X-00-XX-00-00-07-0

Swage mount in .076 hole

2307-X-00-XX-00-00-07-0

Swage mount in .076 hole

2311-X-00-XX-00-00-07-0

Swage mount in .076 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

 $\begin{array}{lll} \text{LENGTHS:} & \pm .005 \\ \text{DIAMETERS:} & \pm .002 \\ \text{ANGLES:} & \pm 2^{\circ} \end{array}$

ORDER CODE: <u>XXXX - X</u> - 00 - <u>XX</u> - 00 - 00 - 07 - 0

1

BASIC PART # — SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

 \diamondsuit 80 200 $\!\dot{\mu}^{\scriptscriptstyle \parallel}$ TIN OVER NICKEL (RoHS)

♦ 44 300µ" SILVER OVER COPPER (RoHS)

♦ **50** 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

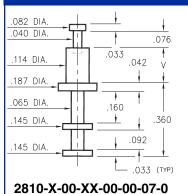


RoHS



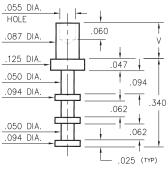






- X -	Board Thick- ness	Length V
2	.062	.105
3	.094	.135
4	.125	.165

2524



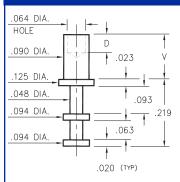
Board - X -Thick-Length ness .031 .075 1 2 .062 .105 3 .094 .135 .125 .165

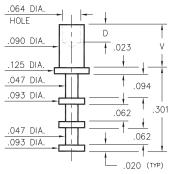
2524-X-00-XX-00-00-07-0

Swage mount in .092 hole

2561/2508

Swage mount in .118 hole





- X -	Board Thick- ness	Length V	Depth D
1	.031	.063	.047
2	.062	.094	
3	.094	.125	.062
4	.125	.156	

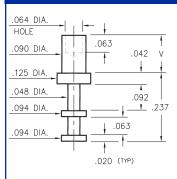
2561-X-00-XX-00-00-07-0

Swage mount in .094 hole

2508-X-00-XX-00-00-07-0

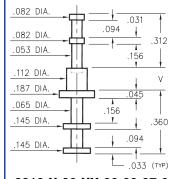
Swage mount in .094 hole

2551



- X -	Board Thick- ness	Length V
1	.031	.075
2	.062	.105
3	.094	.135
4	.125	.165

2812



- X -	Board Thick- ness	Length V
1	.062	.105
2	.094	.135
3	.125	.165
1	188	230

2551-X-00-XX-00-00-07-0

Swage mount in .094 hole

2812-X-00-XX-00-00-07-0

Swage mount in .116 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES

TOLERANCES ON: LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ± 2°

ORDER CODE: <u>XXXX - X</u> - 00 - <u>XX</u> - 00 - 00 - 07 - 0

BASIC PART #

RoHS

SPECIFY PIN FINISH:
01 200µ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS) ♦ 44 300µ" SILVER OVER COPPER (RoHS)

♦ 50 300μ" ELECTRO-SOLDER (RoHS)

(60/40 SnPb)

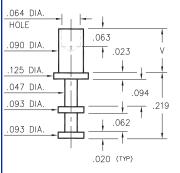


2703

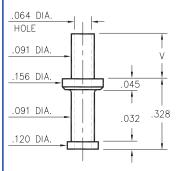
2710



2501



- X -	Board Thick- ness	Length V
1	.031	.078
2	.062	.109
3	.094	.140
4	.125	.171



Board - X -Thick-Length ness .031 .077 1 2 .062 .107 3 .094 .137 .125 .167

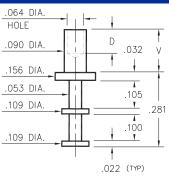
2703-X-00-XX-00-00-07-0

Swage mount in .094 hole

2501-X-00-XX-00-00-07-0

Swage mount in .094 hole

2702



- X -	Thick- ness	Length V	Depth D
1	.031	.075	.063
2	.062	.105	
3	.094	.135	.093
4	.125	.165	

.090 DIA. .032 V .156 DIA. .105 .159

- X -	Board Thick- ness	Length V
1	.031	.062
2	.062	.094
3	.094	.125
4	.125	.156

2702-X-00-XX-00-00-07-0

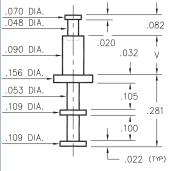
Swage mount in .094 hole

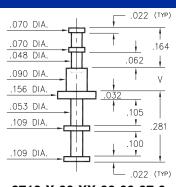
2710-X-00-XX-00-00-07-0

.022

Swage mount in .094 hole

2717/2713





- X -	Board Thick- ness	Length V
1	.031	.062
2	.062	.094
3	.094	.125
4	.125	.156

2717-X-00-XX-00-00-07-0

Swage mount in .094 hole

2713-X-00-XX-00-00-07-0

Swage mount in .094 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ± 2°

ORDER CODE: XXXX - X - 00 - XX - 00 - 00 - 07 - 0

202

BASIC PART #

- SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200μ" TIN OVER NICKEL (RoHS)

♦ 44 300µ" SILVER OVER COPPER (RoHS)

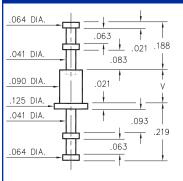
♦ **50** 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

RoHS



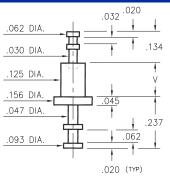






- X -	Board Thick- ness	Length V
1	.031	.062
2	.062	.094
3	.094	.125
4	.125	.156

2705



Board - X -Thick-Length ness .031 .075 1 2 .062 .105 3 .094 .135 .125 .165

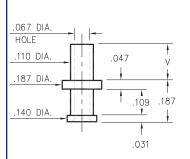
2705-X-00-XX-00-00-07-0

Swage mount in .129 hole

2512-X-00-XX-00-00-07-0

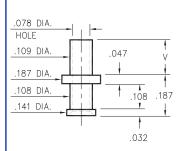
Swage mount in .094 hole

2803



- X -	Board Thick- ness	Length V
1	.031	.078
2	.062	.109
3	.094	.140
4	.125	.171

2815



- X -	Thick- ness	Length V
1	.031	.075
2	.062	.105
3	.094	.135
4	.125	.165

I December

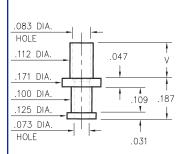
2803-X-00-XX-00-00-07-0

Swage mount in .113 hole

2815-X-00-XX-00-00-07-0

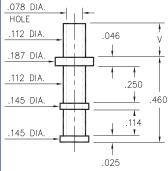
Swage mount in .113 hole

2816



- X -	Board Thick- ness	Length V
1	.031	.078
2	.062	.109
3	.094	.141
4	.125	.172
		•

2817



- X -	Board Thick- ness	Length V
1	.031	.075
2	.062	.105
3	.094	.135
4	.125	.165

2816-X-00-XX-00-00-07-0

Swage mount in .116 hole

2817-X-00-XX-00-00-07-0

Swage mount in .116 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES

TOLERANCES ON:
LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ± 2°

ORDER CODE: <u>XXXX - X</u> - 00 - <u>XX</u> - 00 - 00 - 07 - 0

BASIC PART # — SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL ♦ **80** 200μ" TIN OVER NICKEL (RoHS)

♦ 44 300μ" SILVER OVER COPPER (RoHS)

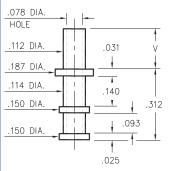
♦ **50** 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

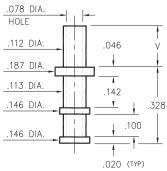






2802/2804





- X -	Thick- ness	Length V
1	.031	.078
2	.062	.109
3	.094	.140
4	.125	.171
	1 2 3	- X - Thick- ness 1 .031 2 .062 3 .094

2802-X-00-XX-00-00-07-0

Swage mount in .118 hole

2804-X-00-XX-00-00-07-0

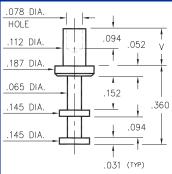
Swage mount in .118 hole

2805

.078 DIA. HOLE .112 DIA. D .047 V .187 DIA. .065 DIA. .156 .234 .145 DIA.

- X -	Board Thick- ness	Length V	Depth D
1	.031	.074	.068
2	.062	.105	
3	.094	.135	.098
4	.125	.165	

2801



- X -	Board Thick- ness	Length V
1	.031	.078
2	.062	.109
3	.094	.141
4	.125	.172
5	.188	.234

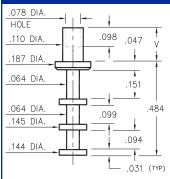
2805-X-00-XX-00-00-07-0

Swage mount in .116 hole

2801-X-00-XX-00-00-07-0

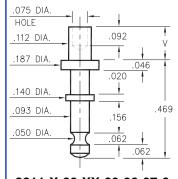
Swage mount in .116 hole

2806



- X -	Board Thick- ness	Length V
1	.031	.078
2	.062	.109
3	.094	.141
4	.125	.172
	•	

2811



- X -	Board Thick- ness	Length V
1 2	.031 .062	.075 .105
3	.094	.135
4	.125	.165

2806-X-00-XX-00-00-07-0

Swage mount in .116 hole

2811-X-00-XX-00-00-07-0

Swage mount in .116 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

 $\begin{array}{lll} \text{LENGTHS:} & \pm .005 \\ \text{DIAMETERS:} & \pm .002 \\ \text{ANGLES:} & \pm 2^{\circ} \end{array}$

ORDER CODE: XXXX - X - 00 - XX - 00 - 00 - 07 - 0

BASIC PART #

RoHS

— SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 44 300µ" SILVER OVER COPPER (RoHS)

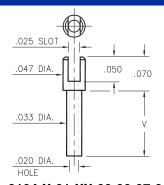
♦ **50** 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)



SOLDER TERMINALS SLOTTED

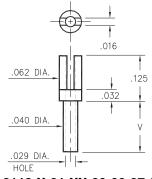


2104



- X -	Board Thick- ness	Length V
1	.031	.055
2	.062	.086
3	.094	.117
4	.125	.148

2112



Board - X -Thick Length ness .016 5 .037 .031 .053 2 .062 .084 3 .094 .115 .125 .147

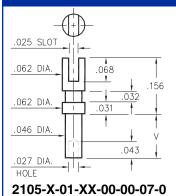
2112-X-01-XX-00-00-07-0

Swage mount in .043 hole

2104-X-01-XX-00-00-07-0

Swage mount in .036 hole

2105



Thick-	Length
ness	V
.031	.055
.062	.086
.094	.117
.125	.149
	.031 .062 .094

Board

2103

-(b) -	
.025 SLOT	
.062 DIA068	.156
.062 DIA031	031
.046 DIA.	† V
O25 DIA. HOLE	

- X - Thick-ness V

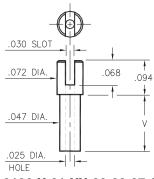
1 .031 .058
2 .062 .089
3 .094 .120
4 .125 .150

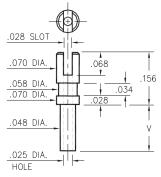
2103-X-01-XX-00-00-07-0

Swage mount in .052 hole

Swage mount in .052 hole

2106/2107





- X -	Thick- ness	Length V
1	.031	.051
2	.062	.082
3	.094	.113
4	.125	.145

2106-X-01-XX-00-00-07-0

Swage mount in .052 hole

2107-X-01-XX-00-00-07-0

Swage mount in .052 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

 $\begin{array}{ll} \text{LENGTHS:} & \pm .005 \\ \text{DIAMETERS:} & \pm .002 \\ \text{ANGLES:} & \pm 2^{\circ} \end{array}$

ORDER CODE: <u>XXXX - X</u> - 01 - <u>XX</u> - 00 - 00 - 07 - 0

BASIC PART #

---- SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 44 300µ" SILVER OVER COPPER (RoHS)

♦ **50** 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

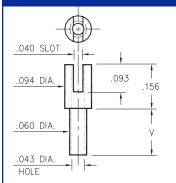
RoHS

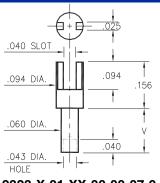


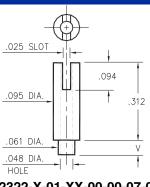
SOLDER TERMINALS SLOTTED



2303/2323/2322







- X -	Board Thick- ness	Length V
1	.031	.053
2	.062	.084
3	.094	.115
4	.125	.147

2303-X-01-XX-00-00-07-0

Swage mount in .064 hole

2323-X-01-XX-00-00-07-0

Swage mount in .064 hole

2322-X-01-XX-00-00-07-0

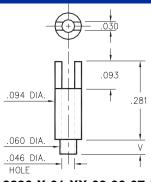
Swage mount in .064 hole

2328

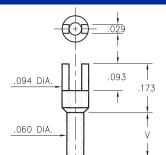
.042 DIA.

HOLE

2320



- X -	Board Thick- ness	Length V
1	.031	.053
2	.062	.084
3	.094	.115



Board - X -Thick-Length ness .062 .031 1 2 .062 .094 3 .094 .125 .125 .156

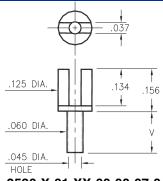
2320-X-01-XX-00-00-07-0

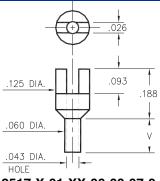
Swage mount in .064 hole

2328-X-01-XX-00-00-07-0

Swage mount in .064 hole

2520/2517





- X -	Board Thick- ness	Length V
1 2 3 4	.031 .062 .094 .125	.062 .094 .125
	1	

2520-X-01-XX-00-00-07-0

Swage mount in .064 hole

2517-X-01-XX-00-00-07-0

Swage mount in .064 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 01 - XX - 00 - 00 - 07 - 0

BASIC PART #

SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200µ" TIN OVER NICKEL (RoHS)

♦ 44 300µ" SILVER OVER COPPER (RoHS) ♦ 50 300μ" ELECTRO-SOLDER (RoHS)

(60/40 SnPb)

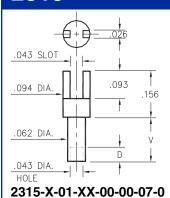




SOLDER TERMINALS SLOTTED



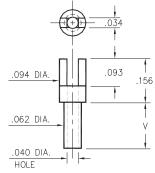
2315



Swage mount in .067 hole

- X -	Board Thick- ness	Length V	Depth D
1	.031	.045	.040
2	.062	.094	
3	.094	.125	.062
4	.125	.156	

2302

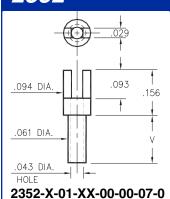


- X -	Board Thick- ness	Length V
1	.031	.053
2	.062	.084
3	.094	.115
4	.125	.147

2302-X-01-XX-00-00-07-0

Swage mount in .067 hole.

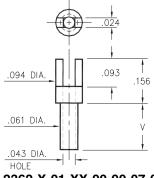
2352



Swage mount in .067 hole

- X -	Board Thick- ness	Length V
1	.031	.045
2	.062	.094
3	.094	.125
4	.125	.156

2362

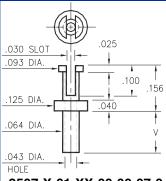


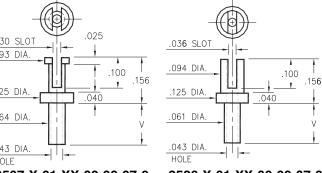
Board - X -Thick-Length ness .037 .016 5 .031 .053 2 .062 .084 3 .094 .115 .125 .147

2362-X-01-XX-00-00-07-0

Swage mount in .067 hole

2507/2526





- X -	Thick- ness	Length V
1	.031	.053
2	.062	.084
3	.094	.115
4	.125	.147

l Boord l

2507-X-01-XX-00-00-07-0

Swage mount in .067 hole

2526-X-01-XX-00-00-07-0

Swage mount in .064 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - 01 - XX - 00 - 00 - 07 - 0

BASIC PART #

SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 44 300µ" SILVER OVER COPPER (RoHS)
- ♦ 50 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

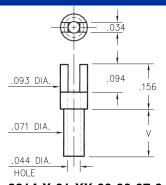
RoHS



SOLDER TERMINALS SLOTTED







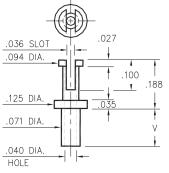
	<i>2511</i>
Length	-((

.045

.094

.125

.156



Board - X -Thick-Length ness .031 .063 1 2 .062 .094 3 .094 .125 .125 .156

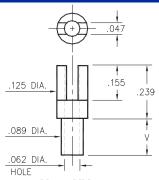
2511-X-01-XX-00-00-07-0

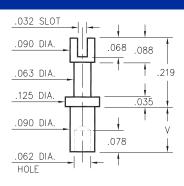
Swage mount in .076 hole

2314-X-01-XX-00-00-07-0

Swage mount in .076 hole

2515/2516





Board

Thick-

ness

.031

.062

.094

.125

- X -

2

3

- X -	Thick- ness	Length V
1	.031	.075
2	.062	.105
3	.094	.135
4	.125	.147

Board

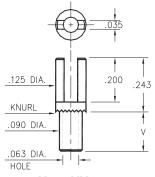
2515-X-01-XX-00-00-07-0

Swage mount in .094 hole

2516-X-01-XX-00-00-07-0

Swage mount in .094 hole

2502



- X -	Thick- ness	Length V
1	.031	.080
2	.062	.111
3	.094	.143
4	.125	.174

2502-X-01-XX-00-00-07-0

Swage mount in .094 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES

TOLERANCES ON:
LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ± 2°

ORDER CODE: XXXX - X - 01 - XX - 00 - 00 - 07 - 0

BASIC PART #



- SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

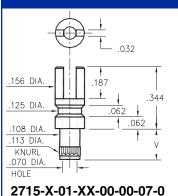
- ♦ 80 200µ" TIN OVER NICKEL (RoHS)
- ♦ 44 300µ" SILVER OVER COPPER (RoHS)
- ♦ **50** 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)



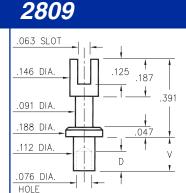
SOLDER TERMINALS SLOTTED



2715



- X -	Board Thick- ness	Length V
2	.062	.109
3	.094	.141
4	.125	.172



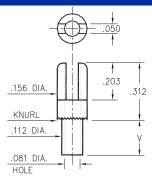
- X -	Board Thick- ness	Length V	Depth D
1	.031	.078	.068
2	.062	.109	
3	.094	.141	.098
4	.125	.172	

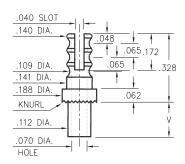
2809-X-01-XX-00-00-07-0

Swage mount in .116 hole

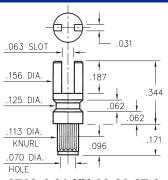
2701/2808

Swage mount in .116 hole





- X -	Board Thick- ness	Length V
1	.031	.075
2	.062	.105
3	.094	.135
4	.125	.165



2762

2701-X-01-XX-00-00-07-0

Swage mount in .116 hole

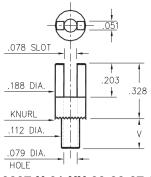
2808-X-01-XX-00-00-07-0

Swage mount in .116 hole

2762-4-01-XX-00-00-07-0

Swage mount in .116 hole For .125 thick board

2807



- X -	Board Thick- ness	Length V
1	.031	.078
2	.062	.109
3	.094	.140
4	.125	.171

RoHS

2807-X-01-XX-00-00-07-0

Swage mount in .116 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON:

LENGTHS: ±.005
DIAMETERS: ±.002
ANGLES: ± 2°

ORDER CODE: XXXX - X - 01 - XX - 00 - 00 - 07 - 0

BASIC PART # — SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL ♦ **80** 200μ" TIN OVER NICKEL (RoHS)

♦ 44 300μ" SILVER OVER COPPER (RoHS)

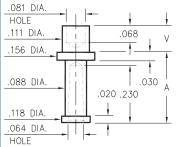
♦ **50** 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)



SOLDER TERMINALS VARIOUS TYPES







Thick-Length Length ness 2 .109 .281 .062 .094 .141 .250

.035 DIA. .080 .260 .040 DIA. .140 .028 .050 SQUARE .100 .025 DIA

.022 DIA. HOLE .039 DIA .020 .080 .062 DIA .039 DIA .080

2709-X-07-XX-00-00-07-0

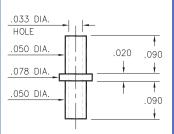
HOLE TAPERING DOWN TO .050 DIA.

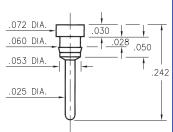
8602-1-00-XX-00-00-07-0 Swage mount in .116 hole Square press-fit in .032 plated thru hole

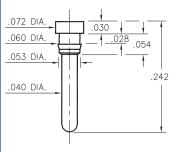
2115-2-00-XX-00-00-07-0 Swage mount in .043 hole

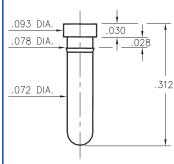
For .062 thick board

8831 2326 8835 8836









2326-2-00-XX-00-00-07-0

Swage mount in .055 hole for .062 thick board

8831-0-00-XX-00-00-03-0

Press-fit in .057 mounting hole

8835-0-00-XX-00-00-03-0 Press-fit in .057 mounting hole

8836-0-00-XX-00-00-03-0

Press-fit in .075 mounting hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES TOLERANCES ON: LENGTHS: ±.005

DIAMETERS: ±.002 ANGLES:

ORDER CODE: XXXX - X - XX - XX - 00 - 00 - XX - 0 **BASIC PART #**

RoHS

SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

♦ 80 200μ" TIN OVER NICKEL (RoHS)

♦ 44 300µ" SILVER OVER COPPER (RoHS)

♦ 50 300µ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)

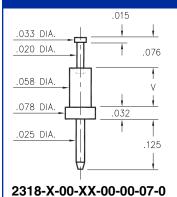


SOLDER TERMINALS PIN TYPE

2309

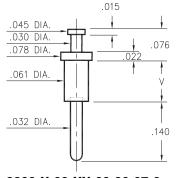






Swage mount in .062 hole

	Length V
.031	.051
.062	.082
.094	.113
	.031 .062

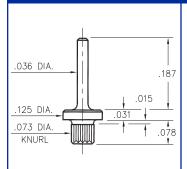


- X -	Board Thick- ness	Length V
1	.031	.054
2	.062	.084
3	.094	.115
4	.125	.147

2309-X-00-XX-00-00-07-0

Swage mount in .064 hole

2514



2514-2-00-XX-00-00-07-0

Press-fit in .070 mounting hole

SPECIFICATIONS

PIN MATERIAL: Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES

TOLERANCES ON: LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: $\pm 2^{\circ}$

ORDER CODE: XXXX - X - 00 - XX - 00 - 00 - 07 - 0 SPECIFY PIN FINISH: BASIC PART # -

01 200μ" TIN/LEAD OVER NICKEL ♦ 80 200µ" TIN OVER NICKEL (RoHS) ♦ 44 300µ" SILVER OVER COPPER (RoHS)

♦ 50 300µ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)





SOLDER TERMINALS PIN TYPE

Board

Thick-

ness

.031

.062

.094

Board

Thick-

ness

.031

.062

.094

.125

Board

Thick-

.062

.094

.125

- X -

2

3

Length

.051

.082

.113

Length

.051

.082

.113

.145

- X -

2

3

- X -

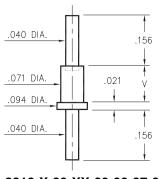
1

2

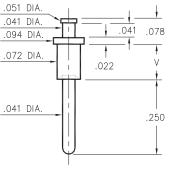
3







2313



Board - X -Thick-Length ness .031 .051 1 2 .062 .084 3 .094 .113 .125 .145

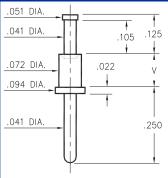
2313-X-00-XX-00-00-07-0

Swage mount in .076 hole

2319-X-00-XX-00-00-07-0

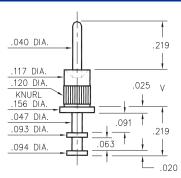
Swage mount in .076 hole

2321



2706

3156



- X -	Thick- ness	Length V
1	.031	.063
2 3	.062 .094	.093 .125
4	.125	.156

I December

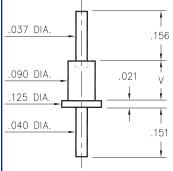
2321-X-00-XX-00-00-07-0

Swage mount in .076 hole

2706-X-00-XX-00-00-07-0

Swage mount in .120 hole

2530

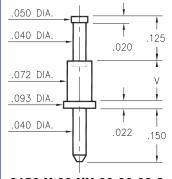


Length	

.094

.125

.156



Basic Part	Board	Length
Number	Thickness	V
3156-1	.031	.051
3156-2	.062	.082
3156-3	.094	.113
3156-4	.125	.145

2530-X-00-XX-00-00-07-0

Swage mount in .094 hole

3156-X-00-XX-00-00-08-0

Swage mount in .076 hole

SPECIFICATIONS

PIN MATERIAL:

Brass Alloy 360, 1/2 Hard Swage pins are annealed

DIMENSION IN INCHES

TOLERANCES ON: LENGTHS: ±.005 DIAMETERS: ±.002 ANGLES: ± 2°

ORDER CODE: XXXX - X - 00 - XX - 00 - 00 - XX - 0

BASIC PART # —

RoHS 2002/95/EC

- SPECIFY PIN FINISH:

01 200μ" TIN/LEAD OVER NICKEL

- ♦ 80 200μ" TIN OVER NICKEL (RoHS)
- ♦ 44 300µ" SILVER OVER COPPER (RoHS)
- ♦ **50** 300μ" ELECTRO-SOLDER (RoHS) (60/40 SnPb)



CUSTOM PIN/RECEPTACLE WORKSHEET



NAME _		TITLE:		
COMPANY	Υ	DATE:		
ADDRESS	s	PHONE:		
		FAX:		
QUANTIT	TIES TO QUOTE			
	CIFICATIONS OF MACHINED PINS, MINALS, RECEPTACLE SHELLS, etc.	ADDITIONAL SPECIFICATIONS FOR RECEPTACLE ONLY		
SIMILAR MIL	LL-MAX PART #:	SIZE OF MATING PIN OR		
MATERIAL:	BRASS	COMPONENT LEAD:(round/square/rectangular)		
	PHOSPHOR BRONZE	LENGTH OF MATING PIN/LEAD:		
	TELLURIUM COPPER (check available stock sizes on page 227)	USE MILL-MAX CONTACT TYPE #:(see page 214 for selector chart)		
FINISH:	TIN over NICKEL TIN/LEAD over COPPER	REQUIRED INSERTION/ EXTRACTION FORCES: LOW MEDIUM HIG		
	μ" GOLD over NICKEL	CONTACT FINISH: TIN over NICKEL		
	SILVER over COPPER	μ" GOLD over NICKEL		
	OTHER:	OTHER:		
.005" FOR LE	ACHINING TOLERANCES ARE ± .002" FOR DIAMETERS, ENGTHS. IF TIGHTER TOLERANCES ARE REQUIRED, CIFY CRITICAL DIMENSIONS ON SKETCH BELOW.	ARE THERE ANY UNUSUAL REQUIREMENTS SUCH AS HIGH OPERATING TEMPERATURE OR CURRENT RATING?		

GENERAL CONTACT INFORMATION





THE "MULTI-FINGER" CONTACT

Mill-Max makes pin receptacles by press-fitting a "multi-finger" spring contact into a machined shell. A selection of 34 contact types are pre-tooled for those who wish to design custom receptacles. This extensive family of contacts will accept round pins ranging from .008" to .102" diameter, as well as rectangular component leads and square wraposts, where the effective diameter is taken as the diagonal dimension of the lead.

Many contacts are interchangeable within a given shell, and so the contact selector chart has been organized by alternate contact groupings. Standard receptacles found in this catalog can be easily assembled with alternate contacts to suit special applications, for example: low insertion force or high operating temperature.

Contact Groups	Contact Type	Accepts Minimum Pin Diameter	Accepts Maximum Pin Diameter	Contact Compliancy	Contact Length	Number of Fingers	Contact Material	Current Rating (For 10°C ΔT)	
No Alternate	#04	.008	.013		.053	3		2A	
No Alternate	#10	.012	.017	.003	.060	6		ZA	
	#09		.018	.002	.051				
Α	#11	1	.020	.003		3	BeCu		
A	#21			.004	.075	3	веси		
	#05		.022						
В	#12		.022	.003	.062	4			
	#22	.015		.005	.002	6		3A	
	#30		.025			4			
	#38		.020	.004		7	BeNi		
С	#32			.009	.083				
	#35		.026	.008	.000	6	BeCu		
	#43								
No Alternate	#15			.004					
	#06	.022	.032	.007	.113	4			
D	#26	.022		.005	.110	7	BeNi	4.5A	
D	#16		.034	.006	.083				
	#47	.025	.037	.011		6			
No Alternate	#18	.037	.043	.004	.062		BeCu		
	#36	.022	.042	.022	.120		БСС		
Е	#49			.006	.125	4	4		
_	#34	.032	.046	.010	.120			8A	
	#24			.009	.120		BeNi		
F	#02	.040	.050	.006	.084	6			
ı	#28	.042	.052	.005	.007	J			
J	#42	.053	.063	.004	.150	4	BeCu	20A	
J	#03	.040	.060	.010			2004		
	#23	.045	.065	.008	.100	6		11.2A	
G	#13 #33	.048	.064	.010 .008	.127		BeNi	11.27	
	#07			.008		1	BeCu		
	#27	.065	.082	.013		4	BeNi	15A	
Н	#14	.000	.085	.014	.150		DOM	13/4	
	,,,,			.011			BeCu		
No Alternate	#08	.084	.102	.011	.122	6		18A	





CONTACT SPECIFICATIONS

COMPLIANCY (δ)

The Mill-Max "multi-finger" contact exhibits wide compliance, eg. the ability of any single contact to accept a broad range of round pins as well as rectangular or square component leads. This ability is referred to as the contact's "compliancy". The compliancy factor (δ) specifies the re-configured operating range after the initial insertion of the largest permissible mating pin. For example: the # 34 contact has an initial operating range from .032" to .047" diameter pins, and a compliancy of .010"; but after insertion of a .047" pin, the contact is sized, and the minimum pin acceptance becomes .047" - .010" = .037". Thus, the new operating range becomes .037" to .047".

The insertion/extraction/normal force characteristics that follow were derived using $30\mu"$ gold plated contact and polished steel, gauge pins having a bullet-shaped tip. The curves represent typical average values. The charts only guide you in selecting a clip that is close to your specification. Your results may vary, so for your specification, log onto www.mill-max.com to obtain complimentary samples of a receptacle assembly for your evaluation.

NORMAL FORCE

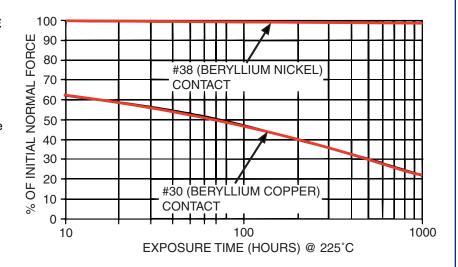
Normal force is the force with which each finger of the "multi-finger" contact grips the mating pin or component lead. For normal forces below 30 grams, gold on both the pin and contact is recommended. For normal forces above 100 grams, tin finish has proven to be very reliable.

CURRENT RATING

Current rating for each contact group can be found in the contact selector chart on page 214. This current rating (for a 10° C temperature rise above ambient) is conservative since it rates an individual pin/ receptacle pair in the free air. For all practical applications, the current rating will be higher because of the heat sinking ability of wires and circuit traces attached to the pin and receptacles.

CONTACT MATERIAL AND STRESS RELAXATION AT HIGH TEMPERATURE

Mill-Max contacts are made from either beryllium copper or beryllium nickel that has been heat treated to achieve ultimate spring properties. The graph illustrates how beryllium copper loses its spring properties over time at a high temperature (225°C). Thus, for burn-in applications and continuous operation above 150°C, beryllium nickel should be substituted for beryllium copper.





Insertion / Extraction Force Graphs



#04 CONTACT

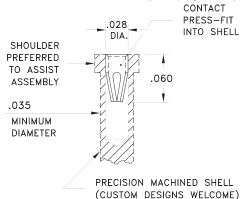
FOR .008-.013 DIAMETER PINS (δ =.003) (see page 214) 3-FINGER CONTACT PRESS-FIT .0205 DIA. INTO SHELL **SHOULDER PREFERRED** TO ASSIST **ASSEMBLY** .028 MINIMUM DIAMETER PRECISION MACHINED SHELL (CUSTOM DESIGNS WELCOME)

CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

#10 CONTACT

FOR .012-.017 DIAMETER PINS (δ =.003) 6-FINGER (see page 214)

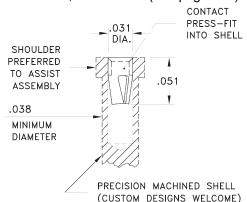


CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

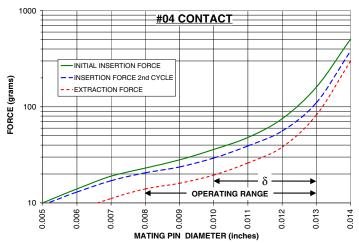
#09 CONTACT

FOR .015-.018 DIAMETER PINS (δ =.002) 3-FINGER, GROUP A (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



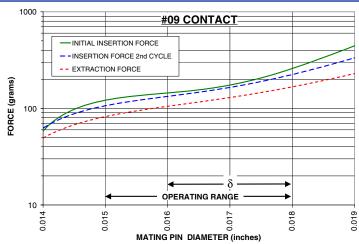
The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

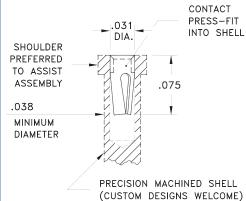


Insertion / Extraction Force Graphs



#11 CONTACT

FOR .015-.020 DIAMETER PINS (δ =.003) 3-FINGER, GROUP A (see page 214)



CONTACT MATERIAL:

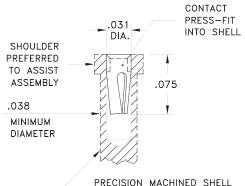
BERYLLIUM COPPER Alloy 172, Heat Treated

The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

#21 CONTACT

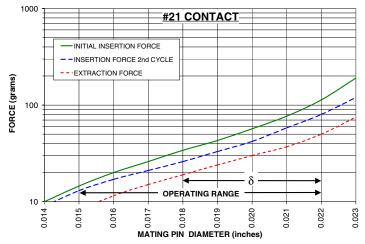
FOR .015-.022 DIAMETER PINS (δ =.004) 3-FINGER, GROUP A (see page 214)



PRECISION MACHINED SHELL (CUSTOM DESIGNS WELCOME)

CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

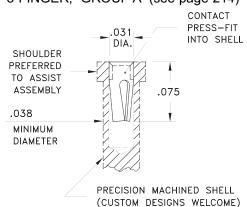


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

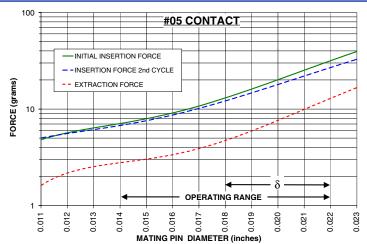
#05 CONTACT

FOR .015-.022 DIAMETER PINS (δ =.004) 3-FINGER, GROUP A (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

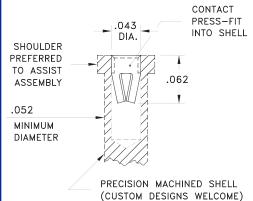


Insertion / Extraction Force Graphs



#12 CONTACT

FOR .015-.022 DIAMETER PINS (δ =.003) 4-FINGER, GROUP B (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

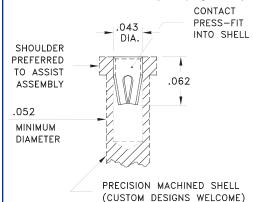
#12 CONTACT FORCE (grams) 100 INITIAL INSERTION FORCE INSERTION FORCE 2nd CYCLE - - EXTRACTION FORCE OPERATING RANGE 10 0.016 0.023 0.013 0.014 0.017 0.024 0.027 0.021 0.01 MATING PIN DIAMETER (inches)

The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

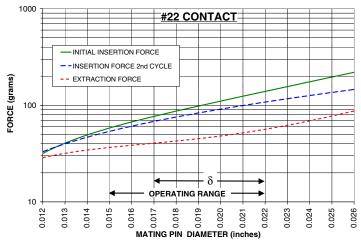
#22 CONTACT

FOR .015-.022 DIAMETER PINS (δ =.005) 6-FINGER, GROUP B (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

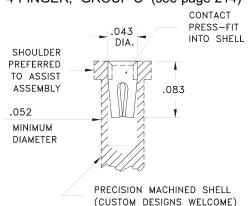


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

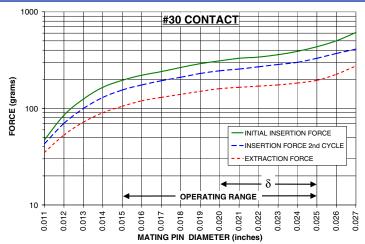
#30 CONTACT

FOR .015-.025 DIAMETER PINS (δ =.005) 4-FINGER, GROUP C (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

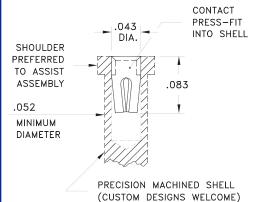


Insertion / Extraction Force Graphs



#38 CONTACT

FOR .015-.025 DIAMETER PINS (δ =.004) 4-FINGER, GROUP C (see page 214)

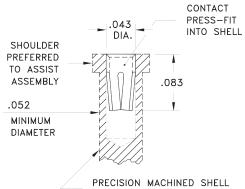


CONTACT MATERIAL:

BERYLLIUM NICKEL Alloy 360, Heat Treated

#32 CONTACT

FOR .015-.026 DIAMETER PINS (δ =.009) 6-FINGER, GROUP C (see page 214)



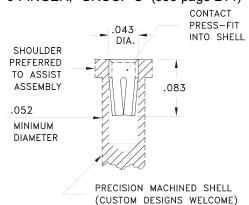
(CUSTOM DESIGNS WELCOME)

CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

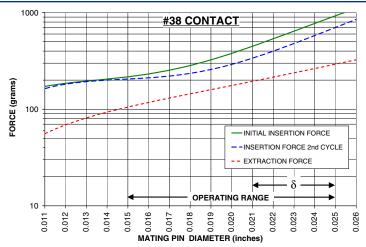
#35 CONTACT

FOR .015-.026 DIAMETER PINS (δ =.008) 6-FINGER, GROUP C (see page 214)



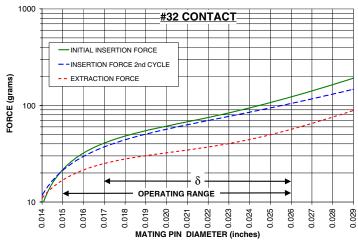
CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



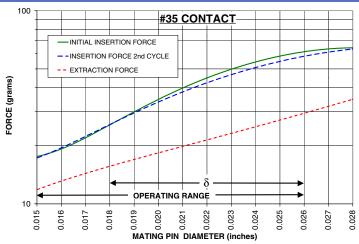
The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

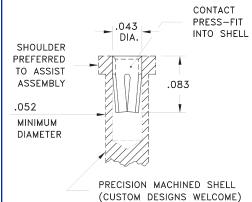


Insertion / Extraction Force Graphs



#43 CONTACT

FOR .015-.026 DIAMETER PINS (δ =.008) 6-FINGER, GROUP C (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

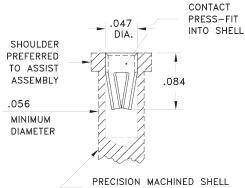
TOURD TO THE PROPERTY OF THE P

The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

#15 CONTACT

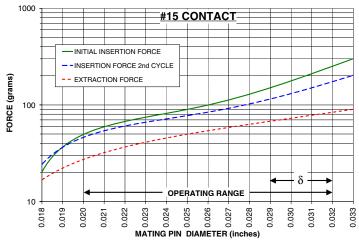
FOR .022-.032 DIAMETER PINS (δ =.004) 6-FINGER (see page 214)



(CUSTOM DESIGNS WELCOME)

CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

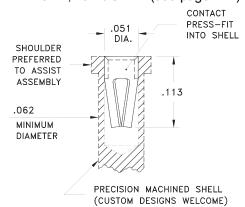


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

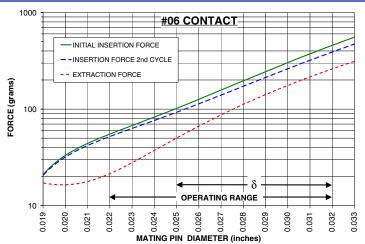
#06 CONTACT

FOR .022-.032 DIAMETER PINS (δ =.007) 4-FINGER, GROUP D (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

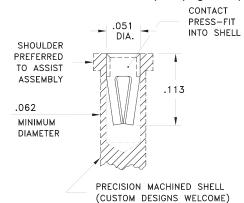


Insertion / Extraction Force Graphs



#26 CONTACT

FOR .022-.032 DIAMETER PINS (δ =.005) 4-FINGER, GROUP D (see page 214)



CONTACT MATERIAL:

BERYLLIUM NICKEL Alloy 360, Heat Treated

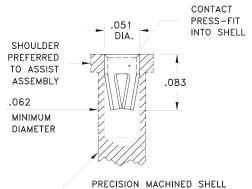
1000 #26 CONTACT INITIAL INSERTION FORCE INSERTION FORCE 2nd CYCLE EXTRACTION FORCE EXTRACTION FORCE OPERATING RANGE MATING PIN DIAMETER (inches)

The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

#16 CONTACT

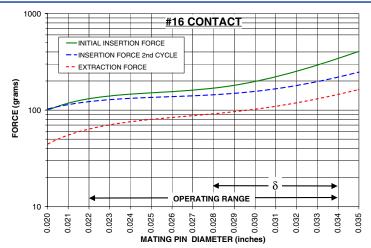
FOR .022-.034 DIA. & .025 SQ. (δ =.006) 6-FINGER, GROUP D (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

(CUSTOM DESIGNS WELCOME)

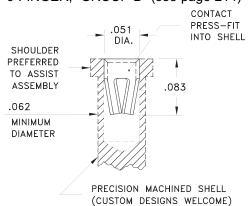


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

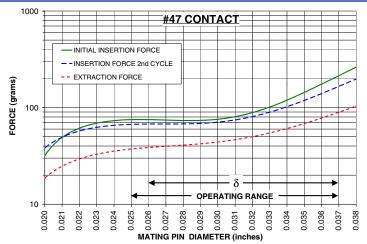
#47 CONTACT

FOR .025-.037 DIA. & .025 SQ. (δ =.011) 6-FINGER, GROUP D (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

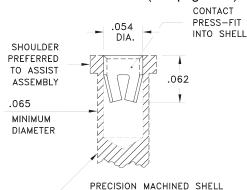


Insertion / Extraction Force Graphs



#18 CONTACT

FOR .037-.043 DIAMETER PINS (δ =.004) 6-FINGER (see page 214)



(CUSTOM DESIGNS WELCOME)

CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

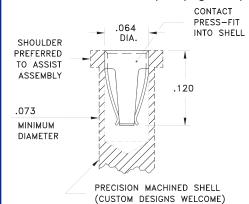
| 1000 | #18 CONTACT | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |

The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

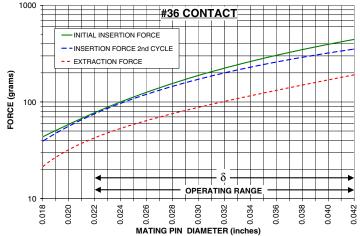
The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

#36 CONTACT

FOR .022-.042 DIAMETER PINS (δ =.022) 4-FINGER, GROUP E (see page 214)



CONTACT MATERIAL:BERYLLIUM COPPER Alloy 172, Heat Treated

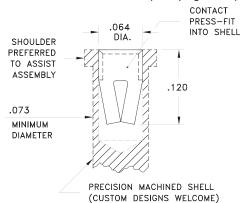


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

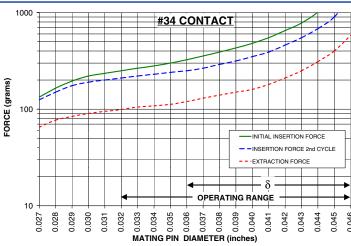
The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

#34 CONTACT

FOR .032-.046 DIAMETER PINS (δ =.010) 4-FINGER, GROUP E (see page 214)



CONTACT MATERIAL:BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

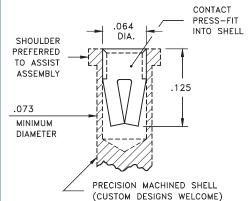


Insertion / Extraction Force Graphs



#49 CONTACT

FOR .032-.046 DIAMETER PINS (δ =.006) 4-FINGER, GROUP E (see page 214)



CONTACT MATERIAL:

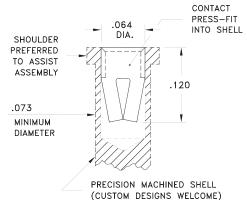
BERYLLIUM COPPER Alloy 172, Heat Treated

The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

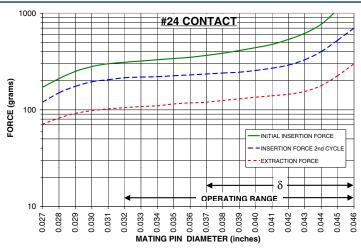
#24 CONTACT

FOR .032-.046 DIAMETER PINS (δ =.009) 4-FINGER, GROUP E (see page 214)



CONTACT MATERIAL:

BERYLLIUM NICKEL Alloy 360, Heat Treated

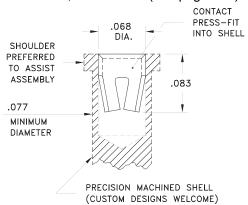


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

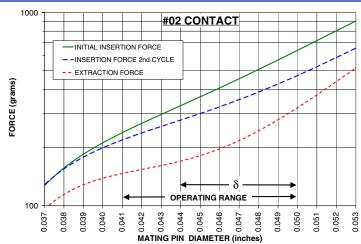
#02 CONTACT

FOR .040-.050 DIAMETER PINS (δ =.006) 6-FINGER, GROUP F (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.



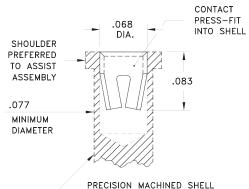
Insertion / Extraction Force Graphs

1000



#28 CONTACT

FOR .042-.052 DIAMETER PINS (δ =.005) 6-FINGER, GROUP F (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

(CUSTOM DESIGNS WELCOME)

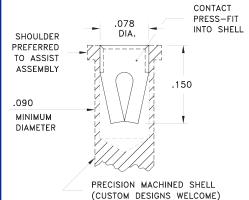
#28 CONTACT INITIAL INSERTION FORCE INSERTION FORCE 2nd CYCLE EXTRACTION FORCE OPERATING RANGE MATING PIN DIAMETER (inches) Insertion/cytraction/normal force characteristics above were derived using 30 microinch gold plated company to the contact of the c

The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

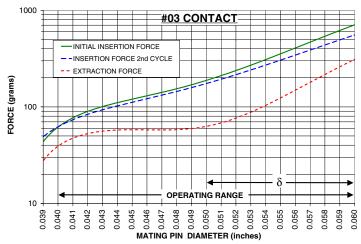
#03 CONTACT

FOR .040-.060 DIAMETER PINS (δ =.010) 4-FINGER (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

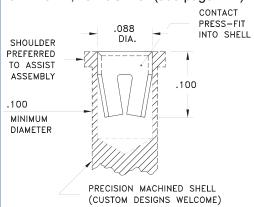


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

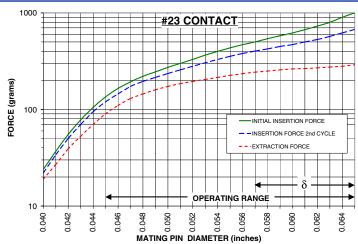
#23 CONTACT

FOR .045-.065 DIAMETER PINS (δ =.008) 6-FINGER, GROUP G (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

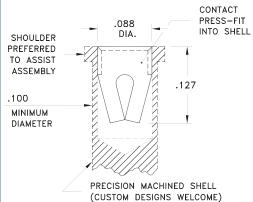


Insertion / Extraction Force Graphs



#13 CONTACT

FOR .048-.064 DIAMETER PINS (δ =.010) 4-FINGER, GROUP G (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

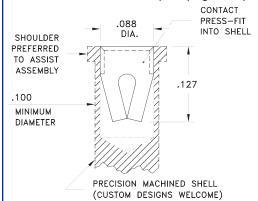
#13 CONTACT INSERTION FORCE 2nd CYCLE - EXTRACTION FORCE FORCE (grams) 100 OPERATING RANGE 10 0.052 0.053 0.054 0.057 MATING PIN DIAMETER (inches)

The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

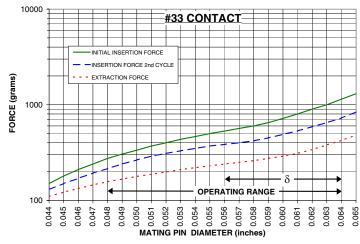
#33 CONTACT

FOR .048-.064 DIAMETER PINS (δ =.008) 4-FINGER, GROUP G (see page 214)



CONTACT MATERIAL:

BERYLLIUM NICKEL Alloy 360, Heat Treated

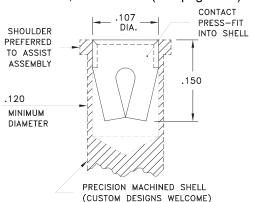


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

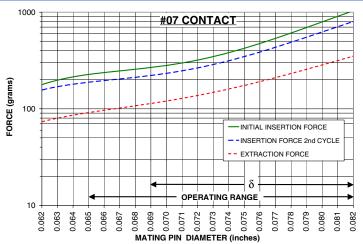
#07 CONTACT

FOR .065-.082 DIAMETER PINS (δ =.013) 4-FINGER, GROUP H (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

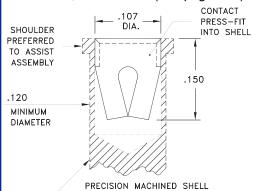


Insertion / Extraction Force Graphs



#27 CONTACT

FOR .065-.082 DIAMETER PINS (δ =.012) 4-FINGER, GROUP H (see page 214)



CONTACT MATERIAL:

BERYLLIUM NICKEL Alloy 360, Heat Treated

10000 #27 CONTACT INITIAL INSERTION FORCE --INSERTION FORCE 2nd CYCLE EXTRACTION FORCE PEXTRACTION FORCE MATING PIN DIAMETER (inches)

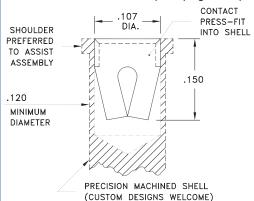
The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

#14 CONTACT

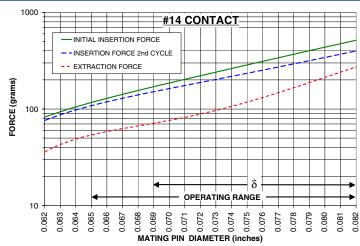
FOR .065-.082 DIAMETER PINS (δ =.014) 4-FINGER, GROUP H (see page 214)

(CUSTOM DESIGNS WELCOME)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated

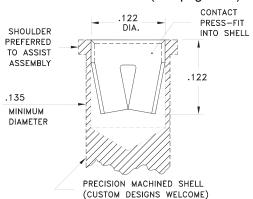


The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.

The curves represent typical average values; they are best used to compare the differences between similar size contacts and to guide you in selecting one that is suitable for your application. Your results may vary, so for your specification, we encourage you to obtain complimentary samples for your evaluation.

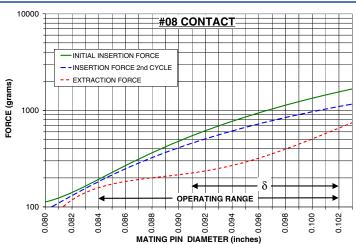
#08 CONTACT

FOR .084-.102 DIAMETER PINS (δ =.011) 6-FINGER (see page 214)



CONTACT MATERIAL:

BERYLLIUM COPPER Alloy 172, Heat Treated



The insertion/extraction/normal force characteristics above were derived using 30 microinch gold plated contact and polished steel gauge pins having a bullet-shaped tip.



DETAILED PROPERTIES OF MILL-MAX RAW MATERIALS

(including RoHS 2002/95/EC requirements)

PROPERTIES OF METALS USED BY MILL-MAX

Copper alloy rod and wire for precision-machined pins, receptacles & solder terminals (Alloys C36000 & C54400 contain 3 to 4% lead to permit "free machining" and is permitted by EC Directive 2002/95 Annex 6; so all pin materials are RoHS compliant).

BRASS ALLOY 360 (UNS C36000) per ASTM B 16

PHOSPHOR BRONZE Alloy 544 (UNS C54400) per ASTM B 139 TELLURIUM COPPER Alloy 145 (UNS C14500) per ASTM B 301

Spring alloy strip for stamping "multi-finger" spring contacts BERYLLIUM COPPER Alloy 172 (UNS C17200) per ASTM B 194 BERYLLIUM NICKEL Alloy 360 (UNS N03360)

Properties of BRASS:

Stock diameters available: .062/.072/.078/.093/.125/.156/.187/.250"

Chemical composition: Cu 61.5%, Zn 35.4%, Pb 3.1%

Temper as machined: H02/H04 Modulus of elasticity: 14x10⁶ psi Tensile strength: 70-90x10³ psi

Hardness as machined: 80-90 Rockwell B

After machining, brass parts are often annealed (softened) for subsequent bending, swaging or crimping. A partial anneal down to 60±10 RB is recommended for 90° bends, a full anneal down to 35±15 RB is recommended for pins or terminals that are swaged (riveted) to a circuit board or crimped to a wire.

Density: .307 lbs/in3

Electrical conductivity: 26% IACS*

Melting point: 900°C/885°C (liquidus/solidus)

Properties of PHOSPHOR BRONZE:

Used for pins requiring more durability than brass.

Stock diameters available: .072/.078"

Chemical composition: Cu 88%, Sn 4%, Zn 4%, Pb 4%

Temper as machined: H04 Modulus of elasticity: 15x106 psi Tensile strength: 70-80x10³ psi Hardness as machined: 83 Rockwell B

Density: .321 lbs/in3

Electrical conductivity: 19% IACS*

Melting point: 1000°C/930°C (liquidus/solidus)

Properties of TELLURIUM COPPER:

Used for pins requiring a higher current carrying capacity than brass or phosphor bronze.

Stock diameters available: .079/.093/.125/.156" Chemical composition: Cu 99.44%, Te .55%, P .008%

Temper as machined: H02 Modulus of elasticity: 17x10⁶ psi Tensile strength: 43x10³ psi Hardness as machined: 43 Rockwell B

Density: .323 lbs/in3

Electrical conductivity: 93% IACS* Thermal conductivity: 91% IACS*

Melting point: 1075°C/1051°C (liquidus/solidus)

Properties of BERYLLIUM COPPER:

Chemical composition: Cu 98.1%, Be 1.9%

Temper as stamped: TD01

Properties after heat treatment (TH01): Modulus of Elasticity: 19x10⁶ psi Tensile Strength: 175-205x10³ psi

Yield Strength (0.2% offset): 150-185x10³ psi

Elongation: 3-10%

Stress Relaxation†: 96% of stress remains after 1,000 hours @ 100 °C 70% of stress remains after 1,000 hours @ 200 °C

Hardness: 36-43 Rockwell C

Density: .298 lbs/in3

Electrical Conductivity: 22% IACS*

Melting point: 980°C/865°C (liquidus/solidus)

†Since BeCu loses its spring properties over time at high temperatures; it is rated for continuous use up to 150°C. For "down-hole" and "burn-in" applications up to 300°C, Mill-Max offers four contacts (#24, #26, #27 & #38) made from Beryllium Nickel Alloy 360 (UNS N03360)

Properties of BERYLLIUM NICKEL:

Chemical composition: Ni 97.6%, Be 1.9%, Ti 0.5% Modulus of Elasticity: 27-30x10⁶ psi

Tensile Strength: 245x10³ psi min.

Yield Strength (0.2% offset): 200x10³ psi min.

Elongation: 9% min. Hardness: 49 Rockwell C Density: .294 lbs/in3

Electrical Conductivity: 7% IACS*

Melting point: 1,325°C/1,195°C (liquidus/solidus)

*International Annealed Copper Standard, i.e.: as a % of pure copper.

PROPERTIES OF PLASTICS USED BY MILL-MAX

Standard plastics used for catalog products:

Injection Molded

PCT Polyester, High Temp (Thermx CG933, black)

Nylon46, High Temp (Stanyl TE250F6 {30% glass} or TE250F9 {45%

glass), black)

PPS, High Temp (Ryton R-4-200)

Machined

FR-4 Epoxy/Glass Laminate. Thicknesses available: .010", .020", .031", .047", .062", .093", .125" (natural color, beige)

FR-4 Epoxy/Glass Laminate, .055" thick (black)

G-30 Polyimide/Glass Laminate, .062" thick (natural color, brown)

TEMPERATURE COMPARISON OF MOLDED INSULATORS

MATERIAL	BRAND		HEAT DEFLECTION TEMP. (per ASTM D 648)
PCT Polyester	Thermx	CG-933	529°F (276°C) @ 66 psi
Nylon 46	Stanyl	TE250-F6 or F9	554°F (290°C) @ 264 psi
PPS	Ryton	R-4-200	>500°F (>260°C) @ 264 psi

Note: Materials above 446°F (230°C) are considered suitable for "eutectic" reflow soldering, above 500°F (260°C) for "lead-free" reflow soldering.

PCT is the standard plastic used with RoHS "lead-free" plated pins.

MILL-MAX STANDARD PLATINGS (FINISHES):

GOLD per ASTM B 488, Type 1 (99.7% min. gold),

Code C (130-200 HK {Knoop hardness}), Class (thickness) per customer's requirements

SILVER per ASTM B 700, Type 1 (99.9% min. silver),

Grade B (Bright),

Class S (anti-tarnish treatment),

Thickness (7.5μm/300μ" used for solder terminals)

TIN/LEAD (93/7) per ASTM B 545 (Appendix X6.3.2.5 to eliminate

whisker growth)

Class A (2.5µm/100µ") or Class B (5µm/200µ"),

Bright finish (Matte available to order)

ELECTRO-SOLDER (60/40) per ASTM B 579, SC2 (8μm/300μ"), Bright finish (Matte available to order)

Standard finishes available for RoHS "lead-free" applications:

GOLD per ASTM B 488, Type 1 (99.7% min. gold),

Code C (130-200 HK {Knoop hardness}), Class (thickness) per customer's requirements

TIN (100%) per ASTM B 545, Class A (2.5µm/100µ")

or Class B (5μm/200μ"),

Matte finish (With whisker and oxide inhibitors and a nickel underplate)

ALL MILL-MAX PARTS REQUIRE AN UNDERPLATE:

Brass parts need a barrier plate to prevent zinc diffusion, 50µ" min. nickel or 100μ" min. copper is recommended by ASTM B 545 & 579. ASTM B 488 also recommends a 50µ" min. nickel barrier plate beneath gold to prevent copper diffusion inherent with all copper alloy products.

MILL-MAX STANDARD UNDERPLATES:

NICKEL per ASTM B 689, Type 2 (Bright),

Class 1.25 (1.25µm/50µ") or Class 2.5 (2.5µm/100µ")

Also available for military & "non-magnetic" applications:

COPPER per ASTM B 734, Class 2.5 (2.5μm/100μ")

or Class 5 (5μm/200μ")

GLOSSARY OF TERMS AND DEFINITIONS



Annealing - Refers to a brass pin that has been softened by heat treatment which makes the pin easier to crimp, rivet (swage) or bend.

Carrier - An assembly consisting of an insulator with male pins onto which receptacles are loaded. This assembly is employed as a fixture during the soldering operation and is then removed leaving a PC board populated with individual receptacles. Female carriers that load male pins are also available for special applications.

Clip - See Contact.

Closed Entry - Refers to female contacts where the front rim prevents the insertion of an oversize pin that would otherwise damage the contact.

Compliancy - Contact's ability to accept multiple insertions and extractions of a wide range of pin shapes and sizes while retaining its original configuration.

Compliant Press Fit - Method of mounting an interconnect component to a PC board where a drilled and slotted receptacle or pin is pressed into a plated-through-hole without damaging the hole.

Constant Usage Temperature (CUT) - Constant Usage Temperature is a measure of the maximum temperature that a material may be exposed to for long periods of time, 1000 - 1500 hrs., before degradation of its electrical and mechanical properties occurs.

Contact (and Contact Clip) - Multi-finger spring insert of a receptacle which completes the electrical path between a male pin and a female receptacle. Also referred to as a clip. Contact Rating - Current carrying capability of a contact measured in amperes with respect to temperature rise above ambient.

Contact Resistance - The electrical resistance at the point of connection determined by the contact geometry, area of contact, plating and normal force.

Coplanarity – Refers to the measurement of multiple points and their distance from a respective plane. This is particularly useful for surface mount parts to determine the maximum amount of difference in the height of the surfaces that need to be soldered.

Electroplating - The electrodepositing of a metal coating on a conductive object such as a pin, shell, or contact clip. **Electro-vibratory Plating** - An electroplating system where the parts are processed in a vibrating basket which ensures uniform plating thickness and avoids damage to delicate parts.

End Stackable - The ability for connectors to be mounted end to end while maintaining grid or spacing.

Extraction Force (or Withdrawal Force) - The force required to remove a lead from a contact.

Epoxy - Woven glass cloth epoxy laminate. Classified as a thermoset, the woven fibers of these materials enable them to withstand high temperatures without being damaged. Cut from large sheets of material, the insulator is then machined on a high speed drill/router, the same way as printed circuit boards are fabricated.

Electrostatic Discharge (ESD) - The momentary electric current that flows between two objects that may cause damage to electronic equipment.

Flash (Plating) - A very thin plating, usually less than 10 micro inches, only enough metal to uniformly cover the surface of the base metal.

Flatness – Sometimes used in place of coplanarity, flatness refers to the amount of variation of a plane or surface.

Floating Contact - In surface mount sockets, a receptacle designed to move up and down freely in an insulator to compensate for unevenly dispensed solder paste.

Free Machining Alloy - An alloy which is easy to machine, e.g. brass alloy 360.

Fretting - A form of corrosion caused by vibration.

Gas Tight Connection - An electrical connection of sufficient pressure to prevent the intrusion of a corrosive atmosphere into the contact area.

Heat Deflection Temperature (HDT) - An industry recognized test for comparing the short term effects of high temperature on plastics.

Heat Treating - The process of using specific heating and cooling cycles to alter the mechanical properties of an alloy. Generally, heat treating can harden or soften a metal depending on the material, the parameters used and the desired physical property.

Hex Press Fit - A method of press-fitting either a pin or receptacle, using a hexagonal cross section, into a plated through-hole without causing damage to the hole while still maintaining a gas tight seal.

High Speed Turning - See Precision-Machined.

Injection Molding - A method of molding plastics by first heating granular plastic to its molten state and injecting it into the mold cavity where the plastic solidifies and is then ejected from the cavity.

GLOSSARY OF TERMS AND DEFINITIONS



Insertion Force - The force required to insert a male lead into a female socket.

Knurl - A vertical serration machined around the diameter of an interconnect pin providing a retention feature for press-fitting in a PC board or insulator and also preventing rotation of the pin.

LCP (Liquid Crystal Polymer) - Classified as a thermoplastic, LCP is a hard, rigid material which exhibits outstanding strength at high temperatures and exceptional strength and toughness in its thin walls. Applications: LCP is used as an insulator material for tight grid (.050", 2mm) connectors and extremely high temperature requirements.

Mating Pin – The pin used to interconnect two electronic devices by inserting it into the contact. Critical features are diameter, length, and shape (but not limited to.)

Machined - See Precision-Machined.

Migration - For a brass part plated with tin or gold, the migration of zinc from brass to the surface of the plating. This becomes zinc oxide and renders the part unsolderable. Zinc migration is prevented by using a copper or nickel underplate as a barrier.

Nylon 46 - Classified as thermoplastics. Nylon 46 offers superior heat resistance, good electrical properties and excellent toughness in its thin walls, which are desirable characteristics for connector insulators. Its superior strength in thin walls enables the press-fitting of pins in close proximity to each other without cracking or warping the material, making it ideal for molding 2mm and .050" grid insulators. Nylon 46 is suitable for high temperature applications including vapor phase, infra-red reflow and wave soldering operations.

Passive Device or Component – An electronic connector that consumes electrical energy, but does not produce electrical energy. Passive devices are not susceptible to significant ESD damage.

PCB - Printed Circuit Board.

PCT (Polycyclohexane Terephthalate) - Thermoplastic polyester is rated for higher temperatures. PCT is a standard material on DIP and SIP insulators for higher temperature operations. All PGA and surface mount products are molded from PCT and are suitable for infra-red, vapor phase and wave soldering.

Plating - A process in which metals (e.g. gold, tin-lead, nickel, silver) are electrically deposited onto a base metal in very thin and precise thicknesses.

Plated Through-Hole - A hole in a printed circuit board which has metallic walls connected to conductors on the surface or inside the board, in which the component lead is inserted and soldered.

Precision-Machined - Manufacturing process whereby a rapidly turning solid metal rod is cut to precise tolerances.

Receptacle - Female contact consisting of an outer shell and inner spring contact (clip) designed for multiple mating/ unmating cycles with a male pin or component lead.

Screw-Machined - See Precision-Machined.

Secondary Machining - A process in which holes, slots, flats, squares or other special features may be machined onto a pin or receptacle after the basic shape of the part has been turned on a high speed lathe.

Shrink DIP Package - An IC which has a pin spacing of .070" on centers.

Skiving – The removal of a thin amount of plating when pins or contacts are press fit. For example, soft platings may yield some amount of skiving upon press fitting into an insulator or board. Skiving may also appear under a contact clip pressed into a receptacle shell.

Standoff - A protrusion at the bottom of the connector used to raise it off the PC board to aid in solder fillet formation, board inspection, flux removal and cleaning.

Swage Mount - A type of mounting commonly used with solder terminals and printed circuit pins where one end of the terminal is flared out (riveted) securing it to the PCB.

Thermal Coefficient of Expansion (TCE) - Expansion of material caused by an increase in temperature.

Thermoset - Type of plastic which is heat cured into a permanent shape, and due to chemical reaction, cannot be remelted.

Thermoplastics - Type of plastic which is molded under heat and pressure and can be remelted & reused many times.

Top Plate - Final surface plating over base metal and underplating.

Underplate - Plating between the base metal and the top plating.

Withdrawal Force (or Extraction Force) - The force required to remove a lead from a contact.

Wrapost (Terminal or Receptacle) - The length of square cross section of certain pins and receptacles which is used for making electrical connections via wire wrapping.

Wire wrapping is a process in which wire is wrapped around the post to form a gas-tight connection without soldering.



MILL-MAX SOCKET	MILL-MAX		MILL-MAX SOCKET	MILL-MAX	
ASSEMBLY NUMBER	PIN # REF.	PAGE #	ASSEMBLY NUMBER	PIN # REF.	PAGE #
101-XX-XXX-41-56X000	1001/0156	27	163-XX-XXX-00-001000	1106-3	49
104-XX-XXX-41-770000	0477	28	170-XX-XXX-00-001000	0700	50
104-XX-XXX-41-780000	0478	28	173-XX-XXX-00-001000	0730-3	50
110-XX-210-10-001000	1001	63	180-XX-XXX-00-001000	8000	51
110-XX-210-10-001000	1001	64	182-XX-XXX-00-001000	8301-2	51
110-XX-210-10-002000 110-XX-3XX-10-001000	1001	63	183-XX-XXX-00-001000	8301-3	51
110-XX-3XX-10-001000	1001	64	210-XX-XXX-41-001000	1001	31
110-XX-3XX-10-002000 110-XX-3XX-10-003000	1001	64	210-XX-XXX-41-001000 210-XX-XXX-41-101000	1001	33
110-XX-3XX-10-003000 110-XX-3XX-10-004000	1001	64	210-XX-XXX-41-101000 210-XX-XXX-41-105000	1005	33 37
110-XX-3XX-10-004000 110-XX-3XX-10-005000	1001	64	210-XX-XXX-41-105000 210-XX-XXX-41-105799	1005	37
110-XX-XXX-41-001000	1001	22	214-XX-XXX-01-670799	1434	40
110-XX-XXX-41-001000 110-XX-XXX-41-105000	1001	36	214-XX-XX-01-670799 214-XX-XXX-01-670800	1434	40
		32		1802	
110-XX-XXX-41-530000	1001	32 26	217-XX-764-41-005000		57
110-XX-XXX-41-605000	1005	30	222-XX-XXX-41-001000	0089-2	31 31
110-XX-XXX-41-801000	1001		223-XX-XXX-41-001000	0088-3	
111-XX-XXX-41-001000	0134	23	223-XX-XXX-41-101000	0038-3	34
113-XX-XXX-41-117000	1334/1434	39	227-XX-764-41-002000	1702-2	57 57
114-XX-XXX-41-117000	1434	38	227-XX-764-41-003000	1703-3	57
115-XX-XXX-41-001000	0501	24	296-XX-010-30-691800	4077/4078	62
115-XX-XXX-41-003000	1534	25	296-XX-010-30-692800	4077/4078	62
116-XX-XXX-41-001000	0153-5	43	299-XX-XXX-10-001000	1103/0903	61
116-XX-XXX-41-003000	0153-2	43	299-XX-XXX-10-002000	1103/0904	61
116-XX-XXX-41-006000	0153-1	43	299-XX-XXX-11-001000	1103/1610	61
116-XX-XXX-41-007000	0153-3	43	299-XX-210-12-001800	1002-X	62
116-XX-XXX-41-008000	0153-4	43	301-XX-1XX-41-560000	0156/1001	73
117-XX-XXX-41-005000	1802	57	304-XX-1XX-41-770000	0477	97
117-XX-XXX-41-105000	1802	58	304-XX-1XX-41-780000	0478	97
121-XX-XXX-41-001000	0040-1	41	310-XX-1XX-40-023000	1023	77
122-XX-XXX-41-001000	0089-2	41	310-XX-1XX-41-001000	1001	73,89
122-XX-XXX-41-801000	0089-2	30	310-XX-1XX-41-105000	1005	78
123-XX-XXX-41-001000	0088-3	41	310-XX-1XX-41-107000	1005	78
123-XX-XXX-41-801000	0088-3	30	311-XX-1XX-41-001000	0134	89
124-XX-XXX-41-002000	0086-4	41	315-XX-1XX-41-001000	0501	89
126-XX-XXX-41-001000	2601	42	315-XX-1XX-41-003000	1534	89
126-XX-XXX-41-002000	2602	42	316-XX-1XX-41-001000	0153-5	91
126-XX-XXX-41-003000	2603	42	316-XX-1XX-41-003000	0153-2	91
127-XX-XXX-41-002000	1702-2	57	316-XX-1XX-41-006000	0153-1	91
127-XX-XXX-41-003000	1703-3	57	316-XX-1XX-41-007000	0153-3	91
134-XX-XXX-00-000000	3400	54	316-XX-1XX-41-008000	0153-4	91
134-XX-XXX-00-010000	3401	54	317-XX-121-41-005000	1802	57
134-XX-XXX-00-020000	3402	54	317-XX-121-41-105000	1802	58
134-XX-XXX-00-050000	3405	54	319-XX-1XX-00-001000	1942	13
134-XX-XXX-00-100000	3410	54	319-XX-1XX-00-002000	1940	13
142-XX-XXX-00-591000	4259-1	55	319-XX-1XX-00-005000	1938	13
142-XX-XXX-00-592000	4259-2	55	319-XX-1XX-30-041000	1941	13
142-XX-XXX-00-593000	4259-3	55	321-XX-1XX-41-001000	0040-1	93
142-XX-XXX-00-594000	4259-4	55	322-XX-1XX-41-001000	0089-2	93
146-XX-XXX-41-012000	4612	29	323-XX-1XX-41-001000	0088-3	93
146-XX-XXX-41-013000	4613	29	324-XX-1XX-41-002000	0086-4	93
150-XX-XXX-00-001000	0290	48	326-XX-1XX-41-001000	2601	95
150-XX-XXX-00-106000	3404	56	326-XX-1XX-41-002000	2602	95
151-XX-XXX-00-003000	5503	52	326-XX-1XX-41-003000	2603	95
151-XX-XXX-00-004000	5504	52	327-XX-121-41-002000	1702-2	57
151-XX-XXX-00-005000	5505	52	327-XX-121-41-003000	1703-3	57
151-XX-XXX-00-009000	5509	53	329-XX-1XX-41-540000	2954	75
151-XX-XXX-00-010000	5510	53	329-XX-1XX-00-560000	2956-1	76
151-XX-XXX-00-011000	5511	53	330-XX-1XX-00-240000	3024	13
153-XX-XXX-00-001000	5301	48	334-XX-1XX-00-000000	3400	105
160-XX-XXX-00-001000	0282	49	334-XX-1XX-00-010000	3401	105
162-XX-XXX-00-001000	1106-2	49	334-XX-1XX-00-020000	3402	105
162-XX-XXX-00-180000	6218	59	334-XX-1XX-00-050000	3405	105
162-XX-XXX-30-180000	6218	60	334-XX-1XX-00-100000	3410	105
	-		1	-	· -



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335-XX-1XX-00-160000	3516	102	426-XX-2XX-41-003000	2603	96
340-XX-1XX-30-780100	4078	69,76	429-XX-2XX-41-540000	2954	75
342-XX-1XX-00-591000	4259-1	106	429-XX-2XX-00-560000	2956-0	76
342-XX-1XX-00-592000	4259-2	106	430-XX-2XX-10-240000	3024	14
342-XX-1XX-00-593000	4259-3	106	435-XX-2XX-00-160000	3516	102
342-XX-1XX-00-594000	4259-4	106	442-XX-2XX-00-10000 442-XX-2XX-00-591000	4259-1	107
346-XX-1XX-41-012000	4612	97	442-XX-2XX-00-591000 442-XX-2XX-00-592000	4259-2	107
346-XX-1XX-41-013000	4613	97	442-XX-2XX-00-593000 442-XX-2XX-00-593000	4259-3	107
350-XX-1XX-00-001000	0290	79,108	442-XX-2XX-00-593000 442-XX-2XX-00-594000	4259-4	107
350-XX-1XX-00-001000 350-XX-1XX-00-006000	3404	79,106 73	446-XX-2XX-41-012000	4259-4 4612	98
350-XX-1XX-00-000000 350-XX-1XX-00-106000	3404 3404	73 78	446-XX-2XX-41-012000 446-XX-2XX-41-013000	4613	98
350-XX-1XX-00-100000 350-XX-1XX-00-107000	3404 3404	78 78	I .	0290	
	5503	103	450-XX-2XX-00-001000 450-XX-2XX-00-006000	3404	79,109 74
351-XX-1XX-00-003000					
351-XX-1XX-00-004000	5504	103	450-XX-2XX-00-106000	3404	78
351-XX-1XX-00-005000	5505	103	451-XX-2XX-00-003000	5503	104
351-XX-1XX-00-009000	5509	103	451-XX-2XX-00-004000	5504	104
351-XX-1XX-00-010000	5510	103	451-XX-2XX-00-005000	5505	104
351-XX-1XX-00-011000	5511	103	451-XX-2XX-00-009000	5509	104
351-XX-1XX-40-002000	5102	77	451-XX-2XX-00-010000	5510	104
353-XX-1XX-00-001000	5301	110	451-XX-2XX-00-011000	5511	104
360-XX-1XX-00-001000	0282	108	453-XX-2XX-00-001000	5301	111
362-XX-1XX-00-001000	1106-2	110	460-XX-2XX-00-001000	0282	109
363-XX-1XX-00-001000	1106-3	110	463-XX-2XX-00-001000	1106-3	111
364-XX-1XX-00-580000	6458	102	464-XX-2XX-00-580000	6458	102
370-XX-1XX-00-001000	0700	108	470-XX-2XX-00-001000	0700	109
373-XX-1XX-00-001000	0730-3	110	473-XX-2XX-00-001000	0730-3	111
380-XX-1XX-00-001000	8000	75,108	480-XX-2XX-00-001000	8000	75,109
382-XX-1XX-00-001000	8301-2	110	483-XX-2XX-00-001000	8301-3	111
383-XX-1XX-00-001000	8301-3	110	499-XX-2XX-10-003000	1103/1602	74
388-XX-102-11-740799	8874	125	499-XX-2XX-10-008000	1938/1940	14
388-XX-102-11-740800	8874	125	499-XX-2XX-10-009000	5011/5113	74
395-XX-101-03-380000	8433	124	507-10-XXX-XX-XXX437	0737	115
395-XX-101-07-350000	8994	124	510-XX-XXX-XX-XXX00X	1001	114
395-XX-101-34-340000	8993	124	511-XX-XXX-XX-XXX00X	0134	114
399-XX-1XX-10-003000	1103	73	513-XX-XXX-XX-XXX085	1385	114
399-XX-1XX-10-008000	1940	13	514-XX-XXX-XX-XXX034	1434	114
399-XX-1XX-10-009000	5011	73	515-XX-XXX-XX-XXX00X	0501	114
399-XX-0XX-21-300000	9930	69	518-XX-XXX-XX-XXX00X	180X	114
399-XX-0XX-00-310000	9931	69	522-XX-XXX-XX-XXX00X	0089-2	114
410-XX-2XX-10-001000	1001	63	523-XX-XXX-XX-XXX00X	0088-3	114
410-XX-2XX-10-002000	1001	63	540-10-XXX-XX-XXX448	4048	117
410-XX-2XX-41-001000	1001	74,90	540-10-XXX-XX-XXX454	4054	117
410-XX-2XX-41-001000 410-XX-2XX-41-105000	1005	74,90 78	540-10-XXX-XX-XXX494	4098	117
411-XX-2XX-41-103000 411-XX-2XX-41-001000	0134	90	540-44-XXX-17-4000X	N/A	120
414-XX-2XX-41-001000 414-XX-2XX-41-117000	1434	76	550-XX-XXX-XX-XXX012	5012	115
415-XX-2XX-41-117000 415-XX-2XX-41-001000	0501	90	551-XX-XXX-XX-XXX003	5503	115
415-XX-2XX-41-001000 415-XX-2XX-41-003000	1534	90	551-XX-XXX-XX-XXX004	5503 5504	115
416-XX-2XX-41-003000 416-XX-2XX-41-001000	0153-5	90 92	551-XX-XXX-XX-XXX004 551-XX-XXX-XX-XXX005	550 4 5505	115
416-XX-2XX-41-001000 416-XX-2XX-41-003000	0153-5	92 92	579-10-XXX-XX-XXX429	7929	117
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416-XX-2XX-41-006000		92	582-11-XXX-XX-XXX414 587-10-XXX-XX-XXX437	8214	117
416-XX-2XX-41-007000	0153-3	92		8737	117
416-XX-2XX-41-008000	0153-4	92	594-XX-020-01-007032	8857-X	62
419-XX-2XX-00-001000	1942	14	599-11-XXX-XX-XXX428	9928	117
419-XX-2XX-00-002000	1940	14	599-10-XXX-XX-XXX429	9929	117
419-XX-2XX-00-005000	1938	14	599-11-XXX-XX-XXX442	9942	117
419-XX-2XX-30-041000	1941	14	599-XX-XXX-XX-XXX476	9976	115
421-XX-2XX-41-001000	0040-1	94	605-XX-XXX-11-480000	0548	46
422-XX-2XX-41-001000	0089-2	94	605-XX-XXX-XX-XXX048	0548	116
423-XX-2XX-41-001000	0088-3	94	612-XX-XXX-41-001000	0255	44
424-XX-2XX-41-002000	0086-4	94	612-XX-XXX-41-002000	8855	44
426-XX-2XX-41-001000	2601	96	612-XX-XXX-41-003000	0135	44
426-XX-2XX-41-002000	2602	96	612-XX-XXX-41-004000	0132	44



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	614-XX-XXX-31-007000	1407	46	818-22-0XX-10-00X-101	0908-X	12
	614-XX-XXX-31-012000	0552-1	47	819-22-0XX-30-001101	0913-0	7.1
6	614-XX-XXX-31-018000	0552-2	47	820-22-0XX-30-001101	0913-0	7.1
6	614-XX-XXX-41-001000	1401	45	821-22-0XX-10-00X-101	0906-X	10
6	614-XX-XXX-XX-XXX007	1407	116	823-22-0XX-10-00X-101	0906-X	10
6	614-XX-XXX-XX-XXX012	0552-1	116	825-22-0XX-10-001101	0914	11
6	614-XX-XXX-XX-XXX0XX	1401	116	827-22-0XX-10-001101	0914	11
7	712-XX-XXX-41-001000	0255	99	830-XX-0XX-10-001000	5012	70
	714-XX-XXX-31-007000	1407	100	830-XX-0XX-20-001000	3790	72
	714-XX-XXX-31-012000	0552-1	101	830-XX-0XX-30-001000	6218	71
7	714-XX-XXX-31-018000	0552-2	101	830-XX-0XX-30-002000	6218	71
	714-XX-XXX-41-001000	1401	100	831-XX-0XX-10-001000	1802	70
	300-XX-0XX-10-001000	7007	81	831-XX-0XX-20-001000	1805	72
_	300-XX-0XX-10-002000	5016	80	831-XX-0XX-30-001000	1802	71
	300-XX-0XX-10-004000	3077	86	831-XX-0XX-30-002000	1802	71
_	300-XX-0XX-10-004000 300-XX-0XX-20-001000	5005	81	832-XX-XXX-10-001000	5012	70
1 -	300-XX-0XX-20-001000 300-XX-0XX-20-201000	5005	88	832-XX-XXX-20-001000	3790/3796	70 72
	300-XX-0XX-20-201000 300-XX-0XX-30-001000	7007	85	832-XX-XXX-30-001000	6218	72 71
_					1802	
	300-XX-0XX-40-002000	1502	77	833-XX-XXX-10-001000		70 72
	300-XX-0XX-61-001000	5601	83	833-XX-XXX-20-001000	1805/3805	72
	300-XX-0XX-62-001000	5602	83	833-XX-XXX-30-001000	1802	71
	301-XX-0XX-10-004000	1313	86	834-XX-0XX-10-001000	3435	87
	301-XX-0XX-10-001000	1304	81	835-XX-0XX-10-001000	3435	87
	301-XX-0XX-10-002000	1303	80	850-XX-0XX-10-001000	4006-0	66
	301-XX-0XX-10-003000	1303	79	850-XX-0XX-20-001000	4006-1	67
_	301-XX-0XX-10-012000	1303	80	850-XX-0XX-30-001000	4006-0	68
_	301-XX-0XX-10-013000	1303	79	850-XX-0XX-30-002000	4006-0	68
8	301-XX-0XX-10-201000	1304	88	851-XX-0XX-10-001000	4890-0	66
8	301-XX-0XX-10-212000	1303	88	851-XX-0XX-10-002000	0467	66
8	301-XX-0XX-20-001000	1305	81	851-XX-0XX-10-011000	4890-1	66.1
8	301-XX-0XX-20-201000	1305	88	851-XX-0XX-10-021000	4890-2	66.1
8	301-XX-0XX-30-001000	1304	85	851-XX-0XX-20-001000	4890-1	67
8	301-XX-0XX-40-002000	1303	77	851-XX-0XX-30-001000	4890-0	68
8	301-XX-0XX-61-001000	4614	83	851-XX-0XX-30-002000	4890-0	68
	301-XX-0XX-62-001000	4615	83	852-XX-XXX-10-001000	4006-0	66
		7007	82	852-XX-XXX-20-001000	4006-1/2	67
	302-XX-0XX-10-002000	5016	80	852-XX-XXX-30-001000	4006-0	68
	302-XX-XXX-10-004000	3077	86	853-XX-XXX-10-001000	4890-0	66
	302-XX-0XX-20-001000	5005/5107	82	853-XX-0XX-10-011000	4890-1	66.1
	302-XX-0XX-30-001000	7007	85	853-XX-0XX-10-021000	4890-2	66.1
	302-XX-0XX-61-001000	5601	84	853-XX-XXX-20-001000	4890-1/2	67
_	302-XX-0XX-61-001000 302-XX-0XX-62-001000	5602	84	853-XX-XXX-20-001000 853-XX-XXX-30-001000	4890-0	68
	303-XX-XXX-10-001000	1304	82	854-22-0XX-10-001101	0950-0	12.1
	303-XX-XX-10-001000 303-XX-0XX-10-002000	1304	80	855-22-0XX-10-001101	0950-0	12.1
1	303-XX-0XX-10-002000	1303	79	854-22-0XX-30-001101	0951-0	12.1
	303-XX-XXX-10-004000	1313	86	856-XX-0XX-10-051000	1933	14.1
	303-XX-XXX-20-001000	1305/1306	82	856-XX-0XX-30-051000	1935	14.1
1	303-XX-XXX-30-001000	1304	85	857-XX-0XX-10-051000	1933	14.1
	303-XX-XXX-61-001000	4614	84	857-XX-0XX-30-051000	1935	14.1
	303-XX-XXX-62-001000	4615	84	862-XX-121-00-180000	6218	59
1	310-22-0XX-40-001101	0916-0	7.2	862-XX-121-30-180000	6218	60
1	311-22-0XX-30-00X-101	0900-X	06			
	311-22-00X-30-00X-191	0900-X	09	896-43-004-00-000000	N/A	122
	312-22-0XX-30-00X-101	0907-X	07	896-43-004-90-000000	N/A	122
8	312-22-0XX-30-01X-101	0907-X/0908-X	08	896-43-005-00-100001	N/A	121
8	312-22-00X-30-00X-191	0907-X	09	896-43-008-90-000000	N/A	122
8	313-22-0XX-30-00X-101	0900-X	06	897-43-004-90-000000	N/A	122
1 6	313-22-0XX-30-00X-191	0900-X	09	897-43-005-00-100001	N/A	121
8		0907-X	07	896-43-004-00-000000	N/A	122
1	314-22-0XX-30-00X-101	0301-7	01			
8	314-22-0XX-30-00X-101 314-22-0XX-30-01X-101	0907-X 0907-X/0908-X		896-43-004-90-000000	N/A	122



	ASSEMBLY NU	WBERS WITH F	REFERENCE TO MILL-MAX	PINS	
MILL-MAX SOCKET ASSEMBLY NUMBER 896-43-008-90-000000 897-43-005-00-100001 917-XX-XXX-41-001000 917-XX-XXX-41-005000 940-44-XXX-17-40000X 940-44-XXX-24-000000 999-11-XXX-10-000000	1705 N/A N/A	PAGE # 122 122 121 123 123 118 119 125	MILL-MAX SOCKET ASSEMBLY NUMBER	MILL-MAX PIN # REF.	PAGE #



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0039 166	0322 152	0415 146	0678 135	1045 166	1801 136
0040 166	0323 152	0413 140	0679 134	1047 167	1802 140
	0323 152	0434 157	0680 133	1052 169	1802 140
				1052 169	
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