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# PRECI-DIP SWISS QUALITY CONNECTION TECHNOLOGY 

INTERCONNECT COMPONENTS
FROM STANDARD PRODUCTS
TO CUSTOM DESIGN



FULL CONTROL OF THE ENTIRE MANUFACTURING PROCESS.
FROM RAW MATERIAL TO FINISHED PRODUCT, FROM PRODUCT DEVELOPMENT TO SALES. HOME TO SUCH UNIQUE QUALITY IS DELEMONT, SWITZERLAND. SINCE 1976.


PRECI-DIP packs unequaled expertise into cutting-edge interconnect components. Advanced designs, top materials, incomparable Swiss precision. Developed by men and women driven by passion and know-how.

Key data for one of the world's leading producers of screw-machined contacts: $25,000 \mathrm{~m}^{2}$, more than 20,000 different products, R\&D supported by state-of-the-art CAD systems and 3D projections. Compliance with the Standards ISO 9001, EN 9100, ISO 14001, ISO/TS 16949 and MIL Standard 790 verified in our own test laboratory.

ISO 14001 Environmental Management Systems. Ahead of its time,
PRECI-DIP exceeds the world's most stringent environmental standards
(Switzerland, California). State-of-the-art filter systems help preserve the atmosphere, a closed water circuit protects the ground water and saves valuable resources. These are but some of the accomplishments the Company can be proud of. Environmental responsibility is a core value embraced by all PRECI-DIP employees.

Precision tools and contact assembly machines are developed, designed and produced by PRECI-DIP experts. Principle of vertical single-site command structure put into practice - from raw material to finished product. Each step under control.

300 high-speed turning machines for producing precision contacts made of various copper alloys. Capacity: more than 150 million pieces/ week.

PRECI-DIP is also a leader in spring-loaded contacts - a top-quality industrial production.

Custom-made insulators for special requirements - 150 contact assembly machines for high-speed clip insertion in the contact body.
Custom-designed products developed in close partnership with the client - a welcome challenge for the PRECI-DIP Team.

SAP-supported production controls for short lead times.
Expertise, qualifications and commitment for high output, flexibility and customer orientation. Under one and the same roof. Supported by a worldwide logistic network.

PRECI-DIP: Come and visit us. On the Internet. Or in person. Experience for yourself what it means to rely on Swiss quality.





## PLATING LINES

- 6 fully automated plating lines of the vibratory basket type
- 180 million parts / week capacity
- Layer deposition: electro nickel, chemical nickel,
tin lead, gold, lead-free tin
- Chemical lab for plating bath
analysis and maintenance
- Waste water treatment installation
- Waste water treatment insta
with ultra filtration system







PROFIT FROM OUR WORLDWIDE

## RECOGNITION

## ADVANTAGE CLIENT

Awards from prestigious institutions and customers. Major certifications. Worldwide recognition. For ongoing innovation, perfect teamwork,
environmental responsibility as well as entrepreneurial excellence and sustained growth. In short, for swiss quality.


## DEMAND THE BEST SOLUTIONS

## FOR YOUR IDEAS

## OUR CUSTOM DESIGN

A competitive edge, the ability to innovate, and high productivity are some of the core values at PRECI-DIP. When it comes to Custom Design, there's an additional value: Teamwork.

Time and again, turning customer ideas and imagination into reality is a very special challenge. This is one of PRECI-DIP's core strengths.

Everything under one roof: the incomparable advantage of PRECI-DIP becomes even more obvious when it comes to Custom Design. Ready access to material resources is as critical as the expertise of our engineers and the art of developing and designing our own production equipment.

Our experience with countless standard products and more than 20,000 references underlie the incessant development of new top-quality products designed with cost-effectiveness and efficiency in mind. PRECI-DIP has integrated Product Development and Product Engineering into one Design Office to create the necessary synergies for best results and top product quality.

Companies in all industrial sectors value their collaboration with PRECI-DIP for complete product and component solutions - today and tomorrow.

Your PRECI-DIP Team welcomes your Custom Design challenge!


## CHOOSE THE BEST CONNECTION

## AROUND THE WORLD

More than 100 Distributors around the world distribute PRECI-DIP products across the five continents


## ENJOY THE BENEFITS

## HEADED FOR SUCCESS

- COMPLETE RANGE OF HIGHLY RELIABLE INTERCONNECT COMPONENTS
- DIVERSE FIELDS OF APPLICATION
- IN-HOUSE MANUFACTURING - FROM RAW MATERIAL TO FINISHED PRODUCT
- EFFECTIVE MANAGEMENT SYSTEM
- HIGHLY SKILLED AND MOTIVATED WORKFORCE
-STRONG CUSTOMER SUPPORT
- CUSTOM DESIGN
- COMPETITIVE PRICING, FLEXIBILITY AND SWISS QUALITY
- WORLDWIDE PRESENCE
- PRESTIGIOUS CLIENT BASE


# PRECI-DIP INTERCONNECT COMPONENTS 

-SPRING-LOADED CONNECTORS

- PCB CONNECTORS
- DILSOCKETS
- PGA/BGA/PLCC SOCKETS
-SCREW-MACHINED CONTACTS
-CUSTOM DESIGN CONNECTORS

\begin{tabular}{|c|c|c|}
\hline \begin{tabular}{l}
preci-dip \\
WWW.PRECIDIP.COM TEL + 41324210400 SALES@PRECIDIP.COM
\end{tabular} \& numericalindex \& 26 \\
\hline STANDARD PRODUCTS \& \begin{tabular}{l}
SPRING-LOADED CONNECTORS \\
generalspecifications \\
FINE PITCH CONNECTORS \\
LOW RESITTANCE MODULAR CONNECTORS \\
basic modular connectors \\
floating mount connectors \\
pad connectors
\end{tabular} \& \[
\begin{array}{r}
28 \\
31 \\
32 \\
33,35 \\
34,36 \\
38 \\
39
\end{array}
\] \\
\hline \& \begin{tabular}{l}
PCB CONNECTORS \\
GENERAL SPECIFICATIONS \\
1 mm \\
1.27 mm \\
1.778 mm \\
1.8 mm \\
2 mm \\
2.54 mm \\
JUMPERS
\end{tabular} \& \[
\begin{gathered}
40 \\
43 \\
44 \\
46 \\
46 \\
55 \\
55 \\
57 \\
69 \\
122
\end{gathered}
\] \\
\hline \& \begin{tabular}{l}
DIL SOCKETS \\
general specifications \\
DIL SOCKETS AND CARIIERS \\
TO SOCKETS \\
staggered dil sockets \\
DISPLAY SOCKETS
\end{tabular} \& \[
\begin{array}{r}
124 \\
127 \\
128 \\
149 \\
145 \\
144,151
\end{array}
\] \\
\hline \& \begin{tabular}{l}
PGA/BGA/PLCC SOCKETS \\
general specifications \\
1 mm \\
1.27 mm \\
INTERSTITIAL \\
2.54 mm
\end{tabular} \& \[
\begin{aligned}
\& 152 \\
\& 155 \\
\& 169 \\
\& 165 \\
\& 161 \\
\& 156
\end{aligned}
\] \\
\hline ONTACTS \& \begin{tabular}{l}
CONTACTS \\
socket contact selector \\
general technicalspecifications \\
SOCKET + PIN CONTACTS \\
SPRING-LOADED CONTACTS \\
mil Contacts \\
DATA SHEET CLIP CONTACTS
\end{tabular} \& \[
\begin{aligned}
\& 174 \\
\& 177 \\
\& 178 \\
\& 179 \\
\& 180 \\
\& 180 \\
\& 185
\end{aligned}
\] \\
\hline CUSTOM DESIGN \& \begin{tabular}{l}
CUSTOM DESIGN \\
APPLICATION FIELDS FOR TELECOMMUNICATION DATA PROCESSING, TRANSPORTATION MIL / AERO, AUTOMATION, TEST AND MEASUREMENT MEDICAL, PROFESSIONAL AND CONSUMER GOODS
\end{tabular} \& 192

194 <br>
\hline
\end{tabular}

## INTERNET

preci-dip

## INTERNET PRODUCT SEARCH ENGINE

Welcome to our new website. Just click the product tabs and follow the selection step
for the search result to appear.
The login function is intended for authorized dealers and allows for an easy search of inventory.
For more information, please visit our website : www.precidip.com

DEALERS ZONE



## PART NUMBERS AND PRODUCT

## IDENTIFICATION

PRECI-DIP products are all identified with a unique part number. These numbers are built with up to 5 groups of digits separated by dashes. Each of these groups has its own signification, making
Please find below a brief explanation of PRECI-DIP identification codes for connectors and sockets:


PRODUCT FAMILY

- $81 \mathrm{x}, 8 \mathrm{Px}$
- $1 \times x, 2 x \mathrm{x}$
$.3 \mathrm{xx}, 4 \mathrm{xx}, 8 \mathrm{xx}$
$.3 x x, 4$
$.5 x x$
-.5xx $7 x$ x
-9xx


## Spring-loaded connectors

DIL sockets
PCB connectors
BGA, PGA and PLCC sockets
Circular connectors, TO sockets

## PLAting code

The standard plating codes are listed and specified in the catalog section Contacts under
General technical specifications at page 178 .
Tin-plated PRECI-DIP products had to be changed to become RoHS compliant and hav
by pure tin plating and the old plating code $9 x$ was replaced by $8 x$.
NUMBER OF PINS
These figures indicate always the total number of contacts of the product.

## SPECIFIC INFORMATIONS

The last two groups of digits can have different significations depending on the product family:

- Type of terminations (PCB connectors):
$\begin{array}{ll}10 & \text { Straight solder pin } \\ 20 & \text { Right angle solder pin }\end{array}$
30 and 40
$5 x$
$5 x \quad$ Wire-wrap

| 00 | no clip |  |  |
| :--- | :--- | :--- | :--- |
| 31 | 3 finger | $4 \times$ | 4 finger |

- Type of clip (DIL sockets): $\quad \begin{array}{cccc} & \text { no clip } & 4 \times & 4 \text { finge } \\ & 31 & 3 \text { finger } & 6 x\end{array}$
. Packaging versions: 003101 for box or tube packaging 003191 for Tape and Reel packaging

EXAMPLES
114-87-628-41-134191: DIL socket, 28 pins, 4 finger clip, tape and reel packaging
803-87-014-10-003101: PCB connectors, 14 pins, with straight solder pins, box packaging

## ROHS-COMPLIANT PLATING

All products displayed in this catalog are compliant with the European Directive 2002/95/ EC on the restriction of the use of certain hazardous substances in electrical and electronic EC on the restriction

|  | INDEX |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| preci-dip |  |  |  |  |  |  |  |
| www.precilip.com | TEL +4132421040 | salesepreciolp.com |  |  |  |  |  |
| refrrence | Page | Reference | Page | reference | Page | Reference | Page |
| 110...01-505101 | 150 | 315...01-881101 | 69 | 422...41-001101 | 81 | 612...41-001101 | 143 |
| 110...01-XXX101 | 151 | 315...41-001101 | 69 | 423...41-001101 | 81 | 614...xx-xxx101 | 143 |
| 110...10-XXX101 | 151 | 315...41-003101 | 69 | 426...41-XXX101 | 82 | 614...xx-xxx112 | 158 |
| 110...41-001101 | 129 | 316...41-Xxx101 | 74 |  |  | 614....x--Xxx144 | 162 |
| 110...41-001151 | 129 | 317...01-687101 | 55 |  |  |  |  |
| 110...41-005101 | 129 | 317...41-005101 | 55 | 446...41-035101 | 79 |  |  |
| 110...41-105101 | 132 | 317...41-022101 | 55 | 446...41-036101 | 79 | 712...41-001101 | 83 |
| 110...41-105161 | 133 | 317...41-026101 | 55 |  |  | 714..31-008101 | 84 |
| 110...41-605101 | 130 |  |  |  |  | 714..31-012101 | 84 |
| 110...41-801101 | 131 |  |  | 450...00-001101 | 101 | 714..31-018101 | 84 |
| 111...41-001101 | 129 | 322...41-001101 | 81 | 450...00-006101 | 100 | 714...41-001101 | 83 |
| 114...41-117101 | 134 | 323...41-001101 | 81 | 450...00-013101 | 102 | 714...41-014101 | 83 |
| 114...41-134161 | 135 | 326...41-xxx101 | 82 | 450...00-018101 | 109 |  |  |
| 115...41-001101 | 137 |  |  | 450...00-106101 | 105 |  |  |
| 115...41-003101 | 137 |  |  | 450...01-899101 | 105 | 800...10-001101 | 108 |
| 116...41-XXX101 | 138 | 346...41-035101 | 79 | 451...00-xxx101 | 103 | 800...10-002101 | 108 |
| 117...41-005101 | 141 | 346...41-036101 | 79 | 453...00-001101 | 121 | 800...12-002101 | 110 |
| 117...41-105101 | 141 |  |  | 456...00-014101 | 107 | 800...12-422101 | 110 |
|  |  |  |  |  |  | 800...20-001101 | 111 |
|  |  | 350...00-001101 | 101 |  |  | 800...20-004101 | 112 |
| 121...41-001101 | 139 | 350...00-006101 | 100 | 460...00-001101 | 120 | 800...20-101101 | 111 |
| 122..41-001101 | 139 | 350...00-012101 | 56 | 463...00-001101 | 121 | 800...22-002101 | 112 |
| 123...41-001101 | 139 | 350...00-013101 | 102 | 470...00-001101 | 120 | 800...30-001101 | 113 |
| 124...41-002101 | 139 | 350...00-018101 | 109 | 473...00-001101 | 121 | 800...30-480101 | 113 |
|  |  | 350...00-019101 | 100 | 480...00-001101 | 120 | 800...30-507101 | 39 |
|  |  | 350...00-024101 | 100 | 483...00-001101 | 121 | 800...32-002101 | 114 |
| 146...41-XXX101 | 142 | 350...00-106101 | 105 |  |  | 800...40-001101 | 115 |
|  |  | 350...00-206101 | 106 |  |  | 800...65-001101 | 116 |
|  |  | 350...01-609101 | 102 | 499...10-003101 | 76 | 800...66-001101 | 116 |
| 150...00-012101 | 141 | 350...01-666101 | 101 | 499...10-009101 | 104 | 800...68-002101 | 117 |
| 150...00-106101 | 146 | 350...01-714101 | 101 |  |  |  |  |
| 150...00-106161 | 147 | 350...01-899101 | 105 | 510...01-504101 | 151 |  |  |
| 150...01-899161 | 147 | 351...00-XXX101 | 103 | 510...xX-Xxx101 | 156 | 801...10-001101 | 87 |
| 150...00-XXX101 | 145 | 353...00-001101 | 121 | 514....x-xxx117 | 156 | 801..10-003101 | 89 |
| 151...00-Xxx101 | 145 | 356...00-014101 | 107 | 514...xX-XxX148 | 166 | 801..10-004101 | 99 |
|  |  |  |  | 514...xX-xxx154 | 161 | 801...10-005101 | 90 |
|  |  |  |  | 514...xX-XxX159 | 169 | 801...10-012101 | 86 |
| 160...00-001101 | 148 | 360...00-001101 | 120 | 517...xX-Xxx111 | 161 | 801...10-101101 | 88 |
| 170...00-001101 | 148 | 363...00-001101 | 121 | 518....XX-XXX105 | 165 | 801...10-132101 | 75 |
| 180...00-001101 | 148 | 370...00-001101 | 120 | 518...xX-Xxx106 | 165 | 801...10-143101 | 88 |
|  |  | 373...00-001101 | 121 |  |  | 801...10-173101 | 75 |
|  |  | 380...00-001101 | 120 |  |  | 801...10-216101 | 91 |
| 210...41-001101 | 129 | 383...00-001101 | 121 | 540...xXX-17-400 | 172 | 801...10-268101 | 85 |
| 217...41-005101 | 141 |  |  | 540...xxx-24-008 | 173 | 801...10-458101 | 86 |
|  |  |  |  | 546...xX-Xxx135 | 157 |  |  |
|  |  | 399...10-003101 | 76 | 546...xX-Xxx136 | 157 |  |  |
| 299...10-001101 | 144 | 399...10-009101 | 104 | 546...xx-xxx147 | 161 | 801...20-001101 | 92 |
| 299...10-002101 | 144 |  |  |  |  | 801...20-002101 | 92 |
| 299...xx-001101 | 14.4 |  |  |  |  | 801...20-101101 | 93 |
|  |  | 410...01-640101 | 72 | 550...xX-xxx101 | 158 | 801...20-442101 | 92 |
|  |  | 410...10-001101 | 150 | 550...xX-XXX135 | 162 | 801...30-001101 | 95 |
| 310...01-609101 | 70 | 410...10-002101 | 150 | 550...xX-XXX152 | 167 | 801...30-002101 | 94 |
| 310...01-640101 | 72 | 410...41-001101 | 70 | 550...xX-XXX166 | 166 | 801...30-480101 | 94 |
| 310...01-666101 | 70 | 410...41-105101 | 77 | 558...xX-XXX101 | 165 | 801...40-001101 | 96 |
| 310...01-754101 | 72 | 411...41-001101 | 71 | 558...xX-Xxx102 | 169 | 801...40-002101 | 96 |
| 310...41-001101 | 70 | 414...41-134101 | 77 | 558...xX-Xxx103 | 169 | 801...53-001101 | 98 |
| 310...41-105101 | 77 | 415...41-001101 | 69 | 558...xX-Xxx104 | 167 | 801...65-001101 | 97 |
| 310...41-205101 | 78 | 416...41-Xx×101 | 74 |  |  | 801...65-410101 | 80 |
| 311...41-001101 | 71 |  |  |  |  | 801...66-001101 | 97 |
| 314..01-899101 | 77 |  |  |  |  |  |  |



## SPRING-LOADED CONNECTORS





## SPRING-LOADED CONNECTORS

## preci-dip

PAD CONNECTORS

The values listed below are general specs applying for PRECI-DIP spring-loaded connectors. Please see individual catalog page for additional and product specific technical data.
operating temperature range $\quad-55 \ldots+125^{\circ} \mathrm{C}\left(-55^{\circ} \ldots+85^{\circ} \mathrm{C}\right.$ with music wire spring
$\begin{array}{ll}\text { CLIMATIC C CTEEGORY (IEC) } & 55 / 85 / 21 \\ \text { ODERatiNG HUMIITY RANGE } & \text { Anne }\end{array}$
Max. working voltage $\quad 100$ Vems/ 150 Voc ( 2.54 mm grid)

- PRECI-DIP connectors designated «Series Preci-Dip Connector» are recognized by ULLLCC and listed under «Connectors for Use "n Data, Signal, Control and Power Applications», Fiile Nr. E174442

MECHANICAL CHARACTERISTICS

|  | Basic | Low resistance | Low resistance |
| :---: | :---: | :---: | :---: |
|  | HolLow Piston TYPE | shaped Piston type | clipin-linedesiant |
| min. Intili height | 3 mm | 6 mm | 10 mm |
| strokeheight ratio | Max. 0.3 | Max. 0.2 | Max. 0.15 |
| maxtrook | 2 mm | 2 mm | 1.5 mm |
| MIN. INTITAL SPRIING Force | 0.2 N | 0.2 N | 0.2 N |

ELECTRICAL CHARACTERISTICS
insulation resistance betweenanvtwo adjacent contacts Min. $10^{\circ} 000 \mathrm{M} \Omega$ at 500 V AC benantwadacenconacts

ENVIRONMENTAL CHARACTERISTICS
and electrical defects.

- Dry heat steady state IEC $60512-11-9.11 \mathrm{i} / 60068-2-2 . \operatorname{Bb}: 125^{\circ} \mathrm{C}, 16 \mathrm{~h}$
- Damp heat cyclic lEC $60512-111-12.11 \mathrm{~m} / 60068-2-30 . \mathrm{Db}: 25 / 55^{\circ} \mathrm{C}, 90-100 \% \mathrm{rH}$ cycle of 24 h
- Thermal shock IEC $60512-11-4.111 \mathrm{~d} / 60068-2-14 \cdot \mathrm{Na:}:-55 / 125^{\circ} \mathrm{C}, 5$ cycles 30 min
- Sinusoidal vibrations IEC 60512-6-4.6d/ $60068-2-6$. F F: 10 to $500 \mathrm{~Hz}, 10 \mathrm{~g}$,

1 octave/min, 10 cycles for each axis

- Shock IEC 60512-6-3.6c / 60068-2-27.Ea: $50 \mathrm{~g}, 11 \mathrm{~ms}$, 3 shocks in three axis

During the above two tests, no contact interruption $>50$ ns does appear
-Solderability J-STD-002A, Test A, $245^{\circ} \mathrm{C}, 5 \mathrm{~s}$, solder alloy SnAg3.8Cu0. 7
Woisture sensitivity J -STD-020C level

## SPRING-LOADED CONNECTORS

Fine pitch connectors with spring-loaded contacts (SLC), solder tail. High-rel contacts with clip, patented in-line desig.

TECHNICAL SPECIFICATIONS (For general specs, see page 3
Insulator
flammabluty UL.94V-O
piston and oarrel Brass CuZn36Pb3 (C36000)
contact clip Beryllium copper (C17200)
spring $\quad$ Stainless steel X12 CrNi177, DIN 1722
=oscs $\quad 1.4 \mathrm{~mm}$
MECHANICALLIFE $\quad 40^{\prime} 000$ cycles $\quad 0.36 \mathrm{Nat} 1 / 2$ stroke operating current Max. 2 A contact resistance $\quad 20 \mathrm{~m} \Omega$ (static measurement, halfway position)

ORDERING INFORMATION ROHS COMPLIANT PARTS PLating Cood pin piston
${ }_{28}^{\text {Plating Co }}$
piston
um min. gold

ee page 178 for plating spec
Surface mount miniature SLC connectors available on request Please consult.

## 8PD-28-0014-01-812

Straight SLC connector, solder tail, single row
Standard number of contacts: 14
Please consult for other pin number or partially equipped connectors


8PC-28-0014-01-828
Right angle SLC connector, solder tail, single row
Please consult for other pin number or partially equipped connectors
$\stackrel{1.7-1}{1}$

Basic modular connectors with spring-loaded contacts (SLC), surface mount. Contacts with shaped piston design for low profile,
TECHNICAL SPECIFICATIONS (For general specs, sef page 3)
ass filled polyester LCP-GF30-FR
flamabillity ul.94V-0
PISToN AND BARREL Brass CuZn36Pb3 (C36000)
$\begin{array}{ll}\text { SPRING } & \text { Stainless steel X12 CrNi177, DIN } 17224 \\ \text { MAX. strooke }\end{array}$

LIFE $\quad 50^{\prime} 000$ cycles
contact resistance $\quad 10 \mathrm{~m} \Omega$ (static measurement, halfway position)
copLanarity
SMD TERRINATIONs Max. 0.1 mm (measured on 25 mm long connectors)
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { Plating coote } & \text { Barrel } & \text { Piston } \\ \text { S1 } & 0.25 \mu \mathrm{mgold} & 0.5 \mu \mathrm{~m} \text { gold }\end{array}$


Bulk: T\& R Packaging with pick \& place cap*
821-ST-NNN-SO-XXX101 ©21-ST-NNN-30-XXX19
Surace
avallablity from $\quad 2$ to 10 contacts
(standard number of contacts: 10)
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Bulk: } & \text { T\&RPackaging with pick \& place cap*: } \\ \text { 823-S1-NNN-30-XXX101 } & \text { 823-S1-NNN-30- }\end{array}$ Surface mount SLC connector, low profile, double row avallabluty from 4 to 20 contacts
standard number of contacts: 20)
xplease consutwww.precidip.com for availability size of tape, size of reel, number of components per reel and packing units,


SPRING-LOADED CONNECTORS
row / soldertall

Low resistance modular connectors with spring-loaded contacts (SLC), solder tail. Contacts with improved, shaped piston desig.
TECHNICAL SPECIFICATIONS (For general specs, see page 3 )
filed polyester PCT-GF30-FR
$\begin{array}{ll}\text { piston and barrel } & \quad \text { Brass CuZn36Pbu (C36000) }\end{array}$
spring $\quad$ Music wire DIN 17223, gold plated
$\begin{array}{ll}\text { Max. STroke } & 1.4 \mathrm{~mm} \\ \text { Forces } & 0.25 \mathrm{~N} \text { initial }\end{array}$
MECHANICALLIFE $\quad 50^{\prime} 000$ cycles
$\begin{array}{ll}\begin{array}{ll}\text { OPRERATING CurRent } \\ \text { CONTACT RESIISTANCE }\end{array} & \begin{array}{ll}\text { Max. } 3.5 \text { A } \\ 10 \mathrm{~m} \Omega & \text { (static measurement, halfway position }\end{array}\end{array}$
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PLating CODE } & \text { BaRREL } & \text { PIston } \\ \text { S1 } & 0.25 \mu \mathrm{~m} \text { gold } & 0.5 \mu \mathrm{~m} \text { gold } \\ \text { SS } & 0.5 \mu \mathrm{~m} \text { gold } & 0.5 \mu \mathrm{~m} \text { gold }\end{array}$
NNN number of poles: Replace NNN with the requested number of poles,
g. 813-S1-NNN-10-014101 for a couble row version with 16 pins
becomes 813-S1-016-10-01410

811-S1-NNN-10-XXX101
Straight SLC connector, low profile, solder tail, single row AVALLABLITY From 2 to 64 contacts
(standard number of contacts: 64)

813-S1-NNN-10-XXX101

| Straight SLC connector, low profile, solder tail, double row |
| :--- |
| AVALLABLITY Rrom |
| to 2 2 contacts |
| (standard number of contacts: 72 ) |



```
avallablity from 4 to 72 contacts
```

(standard number of contacts: 72


813-SS-NNN-10-474101
Straight SLC connector, solder tail, double row
avalıaвاLтү from 4 to 64 contacts (standard number of contacts: 64)


AVAILABLE CONNECTOR HEIGHTS

| intital heighta (mm) | PLASTIC Boor helaht ( (mm) | xxxcoob |
| :---: | :---: | :---: |
| 6 | 4 | 014 |
| 6.5 | 4 | 015 |
| 7 | 4 | 016 |
| 7.5 | 4 | 017 |

## SPRING-LOADED CONNECTORS <br> .54 mm GRID / /INGLE ROW / DoUble Row /SURFCCE MOUNT

## preci-dip

Basic modular connectors with spring-loaded contacts (SLC), surface mount. Contacts with hollow piston design for low profile.
TECHNICAL SPECIFICATIONS (For general specs, sef page 3)
insulator
FLamMabllity
piston and barre
spring
Black glass ined polyester PCT-GF30-FR
Brass CuZn36Pb3 (C36000)
(Music wire DIN 17223, gold plated for 811 ...008101)

operating curenent Max. 3.5 A
CONTACT RESISTANCE $\quad 15 \mathrm{~m} \Omega$ (static measurement, halfway position)

ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PLATING CODE } & \text { BaRrEL } & \text { PISToN } \\ \text { SS } & 0.5 \mu \mathrm{~m} \text { gold } & 0.5 \mu \mathrm{~m} \text { gold }\end{array}$
ee page 178 for plating specs.
NN number of poles
g. 811 -SS-NN poles. Replace NNN with the requested number of poles, 8. ecomes 811-SS-016-30-00210

Bulk:
T\& R Packaging with pick \& place cap*:
811-SS-NNN-30-008101 811-SS-NNN-30-00819
Surface mount SLC connector, very low profile, single row
2 to 10 contacts
avalLablity from $\quad 2$ to 10 contacts
(standard number of contacts: 10)
*Please consult www.precidip.com for availability size of tape, size of

reel, number of components per reel and packing units.
$\begin{array}{lll}\text { Bulk: } & \text { T\&R Packaging with pick \& place cap*: } \\ \text { 811-SS-NNN-30-XXX101 } & \text { 811-SS-NNN-30-XXX191 }\end{array}$
Surface mount SLC connector, low profile, single row
AvalLablity from 2 to 10 contacts
(standard number of contacts: 10)
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
Bulk: T\& R Packaging with pick \& place cap*: 813-SS-NNN-30-XXX101 811-SS-NNN-30-XXX191
Surface mount SLC connector, low profile, double row
avaliability from 4 to 20 contacts
(standard number of contacts: 20)
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.

AVAILABLE CONNECTOR HEIGHTS

| Intila heighta (mm) | strokes (mm) | PLastic Boov height m mm) | xxx 000 E |
| :---: | :---: | :---: | :---: |
| 4.5 | 1.15 | 2.95 | 001 |
| 5 | 1.4 | 2.95 | 002 |
| 5.5 | 1.4 | 2.95 | 003 |
| 6 | 1.4 | 4 | 004 |
| 6.5 | 1.4 | 4 | 005 |
| 7 | 1.4 | 4 | 006 |
| 7.5 | 1.4 | 4 | 007 |



## SPRING-LOADED CONNECTORS <br> 5.54 mm GRID / SINGLE ROW / DOUBLE ROW / SURFACE MOUNT

## preci-dip

WWW.PRECIIIP.COM TEL +41324210400 SALESePRECIIIP.COM

TECHNICAL SPECIFICATIONS (for general specs, see page 3)
polyester PCT-GF30-FR
piston ano barrel Brass CuZn36pb3 (C36000)
SPRING Music wire DIN 17223 , gold plated
max. strou $\quad 1.4 \mathrm{~mm}$

| FORCES | 0.25 N initial $\quad 0.85 \mathrm{~N}$ at $1 / 2$ stroke |
| :--- | :--- |

operating current Max. 3.5 A
(static measurement, halfway position)
copplanarity
SMD TERMINATIONs Max. 0.1 mm (measured on 25 mm long connectors)
ORDERING INFORMATION ROHS COMPLIANT PARTS
cating coode barrla piston


NN number of poles.
g. 813-S1-NNN-30-014101 for a double row rearsion with number of poles g. $813-$ ST TNNN-30-01401 for

811-S1-NNN-30-XXX101 811-S1-NNN-30-XXX19
Surface mount SLC connector, low profile, single row
avallabllity from
standard number of contacts: 10)
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.


Buk: 813 -S1-NNN-30-XXX101 T\& R Packaging with pick \& place cap*:
Surface mount SLC connector, low profile, double row 191 avaliabluty from $\quad 4$ to 20 contacts
standard number of contacts: 20)
*Please consult www.precidip.com for availability size of tape, size of

reel, number of components per reel and packing units.


## SPRING-LOADED CONNECTORS

preci-dip
2.54 mm GRID / SINGLE ROW / DOUBLE ROW / SURFACE MOUNT

WWW.PRECIDIP.COM TEL+41 124210400 SALESQPRECIIP.COM
Basic modular connectors with spring-loaded contacts (SLC), surface mount with positioning pins. Contacts with hollow piston design for low profile.
TECHNICAL SPECIFICATIONS (for General specs, see page 3
ed polyester PCT-GF30-FR

$\begin{array}{ll}\text { spring } & \text { Stainless steel X12 C CNi177, DIN } 17224\end{array}$
max. stroke $\quad 1.4 \mathrm{~mm}(1.15 \mathrm{~mm}$ for $811 / 813-\ldots$ - 021101$)$
$\begin{array}{ll}\text { Forces } & 0.25 \text { initial } \\ \text { MECHANICAL LIFE } & 100 \cdot 000 \text { cycles }\end{array}$
operating current Max. 3.5 A
$15 \mathrm{~m} \Omega$ (static measurement, halfway position)
coplanarivy
SMD TERMINATIONs Max. 0.1 mm (measured on 25 mm long connectors)
ORDERING INFORMATION ROHS COMPLIANT PARTS
Plating Cooe
SS
BARREL
$0.5 \mu \mathrm{mg}$ gold
${ }_{0}^{\text {PIsTon }} \boldsymbol{5}$ m gold

See page 178 for plating specs.
NNN number of poles. Replace NN with the requested number of poles,
e.g. 813 -SS-NNN- $30-021101$ for a double row version with 16 pins
e.g. 813-SS-NNN-30-021101 for a double row version with 16 pins
becomes 813-Ss-016-30-02110

811-SS-NNN-30-XXX101
Surface mount SLC connector, low profile, single row, with 2 positioning pins avalLABLITY From $\quad 2$ to 10 contacts
tal


Surfe-NNN-30-XXX10
Surface mount SLC connector, double row, with 4 positioning pins
Avaliablury erom
4 to 20 contacts
(standard number of contacts: 20)


AVAILABLE CONNECTOR HEIGHTS

| intital heighta (mm) | strokes (mm) | PLASTC Boor helaht ( (mm) | xxx 000 E |
| :---: | :---: | :---: | :---: |
| 4.5 | 1.15 | 2.95 | 021 |
| 5 | 1.4 | 2.95 | 022 |
| 5.5 | 1.4 | 2.95 | 023 |
| 6 | 1.4 | 4 | 024 |
| 6.5 | 1.4 | 4 | 025 |
| 7 | 1.4 | 4 | 026 |

WWW.PRECIIIP.COM TEL +41324210400 SALESePREEIIIP.CoM
Comectors with spring-loaded contacts (SLC), surface moun
TECHNICAL SPECIFICATIONS (FOR GENERAL SPECS, see PAEE 31)
INsuLator Black glass filled polyester PCT-GF30-FR
flammablity UL94V-0




Operating Max. 3 A Max.3A Max. 3 A
CURRENT

copLanarity
SMOTERMNNTIONs
Max
0.1 mm (measured on 25 mm long connectors)
ORDERING INFORMATION ROHS COMPLIANT PARTS

| PLating CODE | BARREL | PISToN <br> 11 |
| :--- | :--- | :--- |
| SS | $0.25 \mu \mathrm{~m}$ gold | $0.25 \mu \mathrm{~m}$ gol |

- 

8PM-11-00NN-02-260 8PM-11-00NN-02-26019
Parallel surface mount SLC connector for pick \& place
automatic assembly
AVALLABLITTY From 2 to 10 contacts
(standard number of contacts: 10 )
xPlease consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.

```
8PM-11-00NN-02-131 8PM-11-00NN-02-131191
Parallel surface mount SLC connector for pick & place
automatic assembly
AvalLabluTr from 2 to 10 contacts
            (standard number of contacts: 10)
```

*Please consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.

Bulk: T\&RPackaging*: SLC connector for chipcards with contacting pads acc. to 1507816
Standard number of contacts: 6
*Please consult www.precidip.com for availability size of tape, size of reel. number of components per reel and packing units.


## PAD CONNECTORS <br> <br> ingle row / double row/ suracemount

 <br> <br> ingle row / double row/ suracemount}preci-dip


TECHNICAL SPECIFICATIONS (For general specs, see page 3i
insulator Black glass filled polyester PCT-GF30-FR
flammablity UL.94V-0
Brass CuZn36Pb3 (C36000)
operatina ánean $\quad 1.5 \mathrm{~mm}$
DieLeectric strenath Min. 1 'Ooo Vews
coplanartiven
SMD TERMINATIONs
Max. 0.1 mm (measured on 25 mm long connectors)
ORDERING INFORMATION ROHS COMPLIANT PARTS $\begin{array}{lll}\text { Platimg coode } & \text { Termination } & \text { contacting area } \\ 10,11 & 0.25 \mu \mathrm{~m} \text { gold } & 0.25 \mu \mathrm{~m} \text { gold }\end{array}$ UNN / NN number of poles. Replace NNN or NN with the requested number of poles, e.g. 802-10-NNN-30-507101 for a double row version
with 20 pins becomes $802-10-020-30-507101$.

Bulk: T\&RPackaging*:
SMD pad connector single row $800-10-$ NNN $-30-507$
SMD pad connector, single row, perpendicuar 2 Aval
AVALLABLITY FRoM 2 to 10 contacts

*Please consult www.precidip.com for avail ability size of tape, size of
reel, number of components per reel and packing units.
Bulk:
802-10-NNN-30-507101 $\begin{array}{ll}\text { T\& Rackaging }:-5071010-N N N-30-50791 ~\end{array}$
SMD pad connector, double row, perpendicular mount
AvalLablity from 4 to 20 contacts
(standard number of contacts: 20)
*Please consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Bulk: } & \text { T\&RPackaging*: } \\ \text { 8MM-11-00NN-02-131 } & \text { 8MM-11-00NN }\end{array}$
SMD pad connector, single row, parallel mount
avalLabilty from 2 to 10 contacts
(standard number of contacts: 10)
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.


## PCB CONNECTORS





## PCB CONNECTORS general specifications

preci-dip
WWW.PRECIDP.COM TEL+41324210400 SALESePRECIIP.com
The values listed below are general specs applying for PRECI-DIP socket and pin connectors. Please see individual catalog page for additional and product specific technical data.
Operating temperature range $\quad-55 \ldots+125$
CLIMAtic Category (IEC)
55/125/21
Max. working voltage Annual mean 75\%

- PRECI-DIP connectors designated «Series Preci-Dip Connector» are recognized by UL LLC and listed under «Connectors for Us Data, Signal, Control and Power Applications », File Nr. E174442.

MECHANICAL CHARACTERISTICS
CLIP RETENTION Min. 40 N (no displacement under axial force applied
contact (sLeEve/ CLIP) Retention Min. 3.3 N acc. to MLL-DTL-83734, pt 4.6.4.2

## electrical characteristics

Insulation resistance betwen anv two adjacent contacts Min. $10^{\circ} 000 \mathrm{M} \Omega$ at 500 V AC CAPaCitance between any two adjacent contacts Max. 1 pF

$\begin{array}{lllll}m m & 0.7 & 0.85 / 0.7 & 0.5 & 0.4 / 0.5\end{array}$
$86 x$
0.5

ENVIRONMENTAL CHARACTERISTICS
The sockets withstand the following environmental tests without mechanical
and electrical defects:

- Dry heat steady state IEC $60512-11-9.11 \mathrm{i} / 60068-2-2.8 \mathrm{Bb}: 125^{\circ} \mathrm{C}, 16 \mathrm{~h}$
- Damp heat cyclic IEC $60512-11-12.11 \mathrm{~m} / 60068-2-30 . D \mathrm{Db}: 25 / 55^{\circ} \mathrm{C}, 90-100 \%$ r

1 cycle of 24 h
-Thermal shock IEC 60512-11-4.11d / 60068-2-14.Na: -55/125 ${ }^{\circ} \mathrm{C}, 5$ cycles 30 min

- Sinusoidal vibrations IEC 60512-6-4.6d/60068-2-6. Fc : 10 to $500 \mathrm{~Hz}, 10$ g

1 octave/min., 10 cycles for each axis

- Shock IEC $60512-6-3.6 \mathrm{c} / 6,0068-2-27$. Ea: $50 \mathrm{~g}, 11 \mathrm{~ms}, 3$ shocks in three axis
During the above two tests, no contact interruption $>50$ ns does appear.
-Solderability J-STD-002A, Test A, $245^{\circ} \mathrm{C}, 5 \mathrm{~s}$, solder alloy SnAg3.8Cuo. 7
- Resistance to soldering heat J-STD-020C, $260^{\circ} \mathrm{C}, 20 \mathrm{~s}$
sensitivity J-STD-020C level
SOLDERLESS COMPLIANT PRESS-FIT CHARACTERISTICS


## Measured acc. TO IEC $60352-9$

- Push-out force: $\quad 30 \mathrm{~N}$ min. (at max. hole dia.) / 50 N typ.
- Push-out 3rd cycle: 20 N min. (at max. hole dia.)

PCB hole dimensions
.2 mm grid
Finished hole ø: $0.7+0.09 /-0.06 \mathrm{~mm}$
pcb hole plating
PCB surface finish

- Tin

Gold over nickel $\quad \begin{aligned} & \text { min. } 25 \mu \mathrm{~m} \text { copper } \\ & 0.05-0.2 \mu \mathrm{~m} \text { gold over } 2.5-5 \mu \mathrm{~m} \text { nickel }\end{aligned}$ $0.05-0.2 \mu \mathrm{~m}$ gold over $2.5-5$
over min. 25 um copper

SOCKET CONNECTORS 1 mm
WWW.PRECIIIP.COM TEL $+41324210400 \quad$ SALESePPREGIIIP.COM

TECHNICAL SPECIFICATIONS
Black glass filled polyester PCT-GF30-FR
SLEEVE Brass CuZn36Pb3 (C36000)
$\begin{array}{ll}\text { ConTact CLIP (4 FINGER) } & \text { Beryllium copper (C17200) } \\ \text { MATING PIN } & 0.36 \text { to } 0.46 \mathrm{~mm}\end{array}$
mating pino
FORCES $\quad \begin{aligned} & 0.25 \mathrm{~N} \text { typ. insertion } \\ & \text { (polished steel gauge } \varnothing \\ & \varnothing 0.40 \mathrm{~mm})\end{aligned} 0.2 \mathrm{~N}$ typ. withdrawal
Mechanical LIFE
rateo current 1 A
Contact resistance Max. $10 \mathrm{~m} \Omega$
copplanarirr
SMT TERMINATIONs Max. 0.1 mm (measured on 25 mm long connectors)
For corresponding pin connectors, see page 45 . Other plating on request (see page 178 for plating specs).
ORDERING INFORMATION ROHS COMPLIANT PARTS NNN number of poles. Replace NNN with the requested number of poles

$\begin{array}{lll}\text { ppplating coode } & \text { SLeve } & \text { Tin } \\ 87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75\end{array}$
861-PP-NNN-10-001101
Straight socket connector low profile, solder tail, single row
avalLABLLTr from $\quad 2$ to 50 contacts
tandard number of contacts: 50


Bu61-PP-NNN-40-001101 \& \& Packaging:
SMD socket connector, single row, parall
avaluablury rrom $\quad 2$ to 50 contacts
(standard number of contacts: 50)
For connectors having more than 24 contacts,
the coplanarity issue is to be addressed specifically

*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.

PIN CONNECTORS 1 mm
preci-dip
single row / solder tall / surface mount
WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePrRECIIIP.COM
Ultraminiature PCB pin connectors, solder tail and SMD parallel mount.
TECHNICAL SPECIFICATIONS (For general specs, see page 4)
Black glass filled polyester PCT-GF30-FR
Flamмablity UL94V-O
Connecting ping Brass CuZn36Pb3 (C3600
$\begin{array}{ll}\text { MECHANical LIFE } & \text { Min. } 500 \text { cycles }\end{array}$
Rated Current
DIELECTRIC STren
1 A
Dielectric strenat
coplanarity
in. 500 Vems
For corresponding socket connectors, see page 44 .
ORDERING INFORMATION ROHS COMPLIANT PARTS
pp plating cooe
termination
0.25 um gol
CONNECTING PIN
0.25 um gold

Other plating on request (see page 178 for plating specs).
NNN number of poles. Replace NNN
g. 860-10-NNN-10-001101 for a single ron version with 8 pins becomes 50-10-008-10-001101


## 860-10-NNN-10-001101

Straight pin connector low profile, solder tail, single row
Avalıabluty from
2 to 50 contacts avallabiLtry from 2 to 50 contacts latandard number of contacts: 50


*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.

reel, number of components per reel and packing units.

WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePrRECIIIP.COM
Ultraminiature PCB socket connectors, solder tai

TECHNICAL SPECIFICATIONS (FOR GENERaL SPEESS, SEE PaGE 43)
Black glass filled polyester PCT-GF30-FR SLEEVE Brass CuZn36Pb3 (C36000
contact clip ( 3 FINGER) Beryllium copper (C17200
mating pin
0.38 to 0.50 mm
$\begin{array}{ll}\text { FORCES } & \begin{array}{l}0.5 \mathrm{~N} \text { typ. insertion } \\ \text { (polished steel gauge } \\ \varnothing\end{array} 0.41 \mathrm{~mm} \text { ) withdrawal }\end{array}$
mechanical LlFE Min. 500 cycles
rated current
$\underset{1 \mathrm{~A}}{\mathrm{Min.} 500 \text { cycles }}$
Contact resistance Max. $20 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 51-54.
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PPD PLating CODE } & \text { SLEEVE } & \text { CLIP } \\ 87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \text { um gold }\end{array}$

851-PP-NNN-10-001101



853-PP-NNN-10-001101
Straight socket connector, solder tail, double row
AVALLABLITY FROM $\quad 4$ to 100 contacts
Clandard number of contacts: 50 and 100


853-PP-NNN-10-002101
Straight socket connector, solder tail, double row with 2.54 mm
row to row distance
avalLabluty from
4 to 100 contacts
(standard number of contacts: 100


855-PP-NNN-10-001101
Straight socket connector, solder tail, triple row
Avaluallury reom
90
9 to 150 contacts
(standard number of contacts: 150)


## SOCKET CONNECTORS 1.27 mm

TECHNICAL SPECIFICATIONS (for general specs, see page 43)
Black glass filled polyester PCT-GF30-FR Sleeve Brass CuZn36Pb3 (C36000)
CONTACT CLIP (3 FINGER) Beryllium copper (C17200)
mating ping
.38 to 0.50 mm
$\begin{array}{ll}\text { Forces } & \begin{array}{l}0.5 \mathrm{~N} \text { typ. insertion } \\ \text { (poolished steel gauge } \varnothing \\ \varnothing\end{array} 0.41 \mathrm{~mm} \text { ). withdrawal }\end{array}$
Mechanical Llfe
Min. 500 cycles
Rated current
1 A
Contact resistance Max. $20 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 51-54
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating CODE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \mu \mathrm{~m} \text { gold }\end{array}$


851-PP-009-10-477101
Straight socket connector height 8.8 mm , solder tail, single row Standard number of contacts: 9
Please consult for other pin number


# SOCKET CONNECTORS 1.27 mm 

WWW.PRECIIIP.COM TEL+41 324210400 SALESePRECIIIP.COM
er tail right angle
TECHNICAL SPECIFICATIONS (FOR GENERAL LPEES, SEE PAGE 43)

|  |  |
| :---: | :---: |
| FLAMMABILITY sLEEVE | UL 94V-O <br> Brass CuZn36Pb3 (C36000) |
| contact clip ( FINGER ) | Beryllium copper (C17200) |
| mating pino | 0.38 to 0.50 mm |
| forces | 0.5 N typ. insertion 0.2 N typ. withdrawal (polished steel gauge $\varnothing 0.41 \mathrm{~mm}$ ) |
| mechanicallife | Min. 500 cycles |
| rated current | 1 A |
| contact resistance | Max. $20 \mathrm{~m} \Omega$ |
| DIELECTRIC Strenath | Min. 500 Vems |
| For corresponding pin connectors, see pages 51-54. |  |
| ORDERING INFOR pp plating code | MATION ROHS COMPLIANT PARTS |
| 87 | Tin Flash gold |
| 83 | Tin $\quad 0.75$ mmgold |

851-PP-NNN-20-001101
Right angle socket
Right angle socket connector, solder tail, single row
$\left.\begin{array}{l}\text { AvalLABLITY from } \\ \text { (standard number of contacts: } 25 \text { and } 50 \text { ) }\end{array}\right)$


Right angle socket connector, solder tail, double row
AVALLABLITY From
4 to 100 contacts
$\begin{array}{ll}\text { AVALLABLLTY FROM } & \left.\begin{array}{l}4 \text { to } 100 \text { contacts } \\ \text { (standard number of contacts: } 50 \text { and 100) }\end{array}\right)\end{array}$


853-PP-NNN-20-002101
853-PP-NNN-20-002101, older tail, double row with 2.54 mm
row to row distanc
AValLABLITY From
4 to 100 contacts
(standard number of contacts: 100)


855-PP-NNN-20-001101
Right angle receptacle, solder tail, triple row
AValLABLITY FRoM
9 to
150 contacts
(standard number of contacts: 150)


SOCKET CONNECTORS 1.27 mm
preci-dip
SingLe Row / double row / triple row / surface mount
WWW.PRECIIIP.COM TEL +41324210400 SALESePPRECIIIP.COM
Ultraminiature PCB socket connectors, SMD mount.


Bulk: T\& R Packaging with pick \& place
851-PP-NNN-30-001101 851-PP-NNN-30-0011
SMD socket connector, single row, perpendicular mount
avallabluty from $\quad 3$ to 50 contacts
For connectors having contacts: 25 and 50
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.

| Bulk: | $\begin{array}{l}\text { T \& R Packaging with pick \& place cap*: } \\ \text { 853-PP-NNN-30-001101 } \\ \text { 853-PP-NNN-30-001191 }\end{array}$ |
| :--- | :--- |
| SHE |  |

SMD socket connector, double row, perpendicular 00119
avallablity from 4 to 100 contacts
(standard number of contacts: 50 and 100)
For connectors having more than 19 contacts per row
the coplanarity issue is to be addressed specifically
ese consut wwww.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
Bulk:


SMD NN-30-002101 853-PP-NNN-30-002191 SMD socket connector
perpendicular mount
perpendicular mo
4 to 100 contacts
(standard number of contacts: 100)
For connectors having more than 19 contacts per row
the coplanarity issue is to
recidip.
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
851-PP-NNN-30-136101
SMD socket connector, single row, perpendicular mount
with 2 positioning pins
Avallablity from
5 to 50 contacts
(standard number of contacts: 25 and 50 ) For connectors having more than 19 contacts,
the coplanarity issue is to be addressed specifically

## SOCKET CONNECTORS 1.27 mm

TECHNICAL SPECIFICATIONS (for general specs, see page 43

contact clip (4 Finger)
mating ping
mating ping

MECHANICALLIIE 0.5 N typ. insertion
(polished steel gaus Min. 500 cycles
rated current
contact resistance Max. $20 \mathrm{~m} \Omega$
asteng Min. 500 VBMS
coplanarity
SMD TERMINATIONs Max. 0.1 mm (measured on 25 mm long connectors)
For corresponding pin connectors, see pages 51-54.
ORDERING INFORMATION ROHS COMPLIANT PARTS

ther plating on request (see page 178 for plating specs).
NN number of poles. Replace NNN with the requested number of poles,
e.g. $851-83-$ NNN-40-001101 for a single row version with 8 pins becomes
$851-83-008-40-001101$ 51-83-008-40-001101

853-PP-NNN-30-051101
SMD socket connector, double row with 2.54 mm row to row distance,
perpendicular mount with 2 position ing pins
AVALLABLITY From $\quad 4$ to 100 contacts
(standara number of contacts: 100)
the coplanarity issue is to be addressed specifically


851-PP-NNN-40-001101
SMD socket
termination
avalLablity from 2 to 50 contacts (standard number of contacts: 25 and 50) the coplanarity issue is to be addressed specifically


Bulk: T\& R Packaging*

AValLABLITTY FROM $\quad 2$ to 50 contacts
(standard number of contacts: 25 and 50) For connectors having more than 19 contacts,
the coplanarity issue is to be addressed seceificaly the coplanarity issue is to be addressed specifically
 *Please consult www.precidip.com for avaliabity size

PIN CONNECTORS 1.27 mm
SINGLEROW/DOUBLE ROW/TRIPLEROW/SOLDERTAIL
WWW.PRECIIIP.COM TEL +41324210400 SALESePREEIIIP.COM
Ultraminiature PCB pin connectors, solder tai
TECHNICAL SPECIFICATIONS (For general specs, se page ab
InsuLATOR Black glass filled polyester PCT-GF30-FR

CONNECTING PIND $\quad 0.41 \mathrm{~mm}$
mechanical life Min. 500 cycles
Rated current
DIELECTRIC STREN
Min. $1^{1} 000$ Vems
For corresponding socket connectors, see pages 46-50
ORDERING INFORMATION ROHS COMPLIANT PARTS

| pp plating coode | Termination <br> 10 | Convecting pin <br> $0.25 \mu \mathrm{~m}$ gold |
| :--- | :--- | :--- |
| $0.25 \mu \mathrm{~m}$ gold |  |  |

## 850-PP-NNN-10-001101




Strai PP-NNN-10-001101
Straight pin connector, solder tail, double row
Avallablitry from $\quad 4$ to 100 contacts
(standard number of contacts: 50 and 100)


852-PP-NNN-10-002101
Straight pin connector, solder tail, double row with 2.54 mm
row to row distance
AValLABILITY FRoM
4 to 100 contacts
(standard number of contacts: 100)


854-PP-NNN-10-001101
Straight pin connector, solder tail, triple row
AvalLABBIITY From $\quad 9$ to 150 contacts
avaliabluty from 9 to 150 contacts
(standard number of contacts: 150)


PIN CONNECTORS 1.27 mm
PIN CONNECTORS $1.27 \mathrm{~mm}_{\text {SIN }}$
preci-dip
WWW.PRECIIIP.COM TEL+41 324210400 SALESePRECIIIP.COM
. solder tail, right angle,
TECHNICAL SPECIFICATIONS (For general specs, see page 43)
Insulator Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { connact } & \text { UL.94V-0 } \\ \text { Crass CuZn36pbs }\end{array}$
connecting pine $\quad 0.41 \mathrm{~mm}$

| MECHANICAL LIFE |  |
| :--- | :--- |
| Rated Curbent | 1 A |


For corresponding socket connectors, see pages 46-50 ORDERING INFORMATION ROHS COMPLIANT PARTS



N
g. 852 mber of poles. Replace NNN with the requested number of poles
e.8.852-10-NNN-20-02110 for a aouble row version with 16 pins
becomes 852-10-016-20-00110

| 850-PP-NNN-20-001101 <br> Right angle pin connector, solder tail, single row <br> availability from 2 to 50 contacts <br> (standard number of contacts: 25 and 50) |  |
| :---: | :---: |
| 852-PP-NNN-20-001101 <br> Right angle pin connector, solder tail, double row avallablity from $\quad 4$ to 100 contacts (standard number of contacts: 50 and 100) |  |
| 852-PP-NNN-20-002101 <br> Right angle pin connector, solder tail, double row with 2.54 mm row to row distance <br> aVAILABILITY FROM 4 to 100 contacts (standard number of contacts: 100) |  |
| 854-PP-NNN-20-001101 <br> Right angle pin connector, solder tail, triple row <br> Avallablity from $\quad 9$ to 150 contacts <br> (standard number of contacts: 150) |  |

PIN CONNECTORS 1.27 mm
preci-dip
single row / double row / surface mount
WWW.PRECIIIP.COM TEL +41324210400 SALESePREEIIIP.CoM
Ultraminiature PCB pin connectors, SMD mount.
TECHNICAL SPECIFICATIONS (for General specs, see page 4)
insulator Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { connact } & \text { UL 94V-O } \\ \text { crass CuZn36Pb } 3 \text { (C36000) }\end{array}$
$\begin{array}{ll}\text { CoNNECTING PIN } & 0.41 \mathrm{~mm} \\ \text { MECHANCGLLIEE } & \text { Min } 500\end{array}$
mechanical life Min. 500 cycles
Rated current
coplanabity
For corresponding socket connectors, see pages $46-50$.
ORDERING INFORMATION ROHS COMPLIANT PARTS

| PP PLATING COOE | TeRmination <br> 10 | Connecting pin <br> $0.25 ~ \mu m$ gold |
| :--- | :--- | :--- |
| $0.25 \mu \mathrm{~m}$ gold |  |  |



Bulk: T\& R Packaging with pick \& place cap*:
850-PP-NNN-30-001101 850-PP-NNN-30-00119
SMD pin connector, single row, perpendicular moun
avallablutr from 3 to 50 contacts
(standara number of contacts: 25 and 50)
For connectors having more than 19 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Butk: } & \begin{array}{l}\text { T\& R Packaging with pick \& place cap*: } \\ \text { 852-PP-NNN-30-001101 } \\ \text { 852-PP-NNN-30-001191 }\end{array}\end{array}$
SMD pin connector, double row, perpendicular mount
Avallablity from $\quad$ to 100 contacts
(standard number of contacts: 50 and 100)
For connectors having more than 19 contacts per row,
the coplanarity issue is to be addressed specifically
*Please consult www precidip.com for avail bility size of tape, size of
reel, number of components per reel and packing units.
Bulk:
T \& R Packaging with pick \& place cap*:
852-PP-NNN-30-002101 852-PP-NNN-30-002191
SMD pin connector, double row with 2.54 mm row to row distance,
perpendicular mou
to 100 contacts
(standard number of contacts: 100)
For connectors having more than 19 contacts per row,
recidi p.
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
850-PP-NNN-30-135101
SMD pin connector, single row, perpendicular mount with 2 positioning pin
5 to 50 contacts
(standard number of contacts: 25 and 50 )
tors having more than 19 contacts,
the coplanarity issue is to be addressed specifically



PIN CONNECTORS 1.27 mm
preci-dip
single row / double row / surface mount
WWW.PRECIIIP.COM TEL+41324210400 SALESePRECIIP.COM

TECHNICAL SPECIFICATIONS (for General specs, see page 4)
Black glass filled polyester PCT-GF30-FR
contact Brass CuZn36Pb3 (C36000)
CONNECTING PINQ $\quad 0.41 \mathrm{~mm}$
MEChanical LIFE Min. 500 cycles

| Rated current |
| :--- |
| Dielectric stren |

coplanarity Nath Min. $1^{1} 000$ Vrms
For corresponding socket connectors, see pages $46-5$.

| ORDERING In | Ation rohs TERMINATION |  |  |
| :---: | :---: | :---: | :---: |
| 10 | 0.25 mm gold | $0.25 \mu \mathrm{~m}$ gold | Other plating on request (see page 178 for plating specs). |
| 80 | Tin | Tin | NNN number of poles. Replace NNN with the requested number of poles, e.g. 850-10-NNN-40-001101 for a single row version with 16 pins |

852-PP-NNN-30-051101
SMD pin connector, double row with 2.54 mm row to row distance,
perpendicular mount with 2 positioning pins
AVALLABLITY FROM $\quad \begin{aligned} & 4 \text { to } 100 \text { contacts } \\ & \text { (standard number of contacts: 100) }\end{aligned}$
For connectors having more than 19 contacts per row
the coplanarity issue is to be addressed specifically


85-PP-NN-4O-OM
SMD pin connector, single row, parallel mount with long solder termination 2 to 50 contacts
(standard number of contacts: 25 and 50)
For connectors having more than 19 contacts,


Bulk: T\&RPackaging
5M.
SMD pin connector, single row, parallel mount s.
and wider insulator for easier pick and plac
avallablitit from
(standard number of contacts: 50)
For connectors having more than 19 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of


## SOCKET CONNECTORS

### 1.778 and 1.8 mm

single row / solder tall

## preci-dip

a..................................... mm solder tal

TECHNICAL SPECIFICATIONS (For general specs, see page 43
Black glass filled polyester PCT-GF30-FR
SLEEVE Brass CuZn36Pb3 (C36000)
CONTACT CLIP (4 FINGER) Beryllium copper (C17200)
Matng pin $\quad 0.40$ to 0.56 mm

Mechanical LlFE Min. 500 cycles
Rated current
$\underset{1 \mathrm{~A}}{\mathrm{Min} .500 \text { cycles }}$
contact resistance Max. 10 m .

ORDERING INFORMATION ROHS COMPLIANT PARTS
PP Plating COOE SLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & \end{array}$

317-PP-1NN-41-005101
Straight socket connector, single row, grid spacing 1.778 mm
avallablity from 2 to 38 contacts
(standard number of contacts: 38 )
ther plating on request (see page 178 for plating specs). $\mathbf{N}$ number of poles. Replace $\mathbf{N N}$ with the requested number of poles, .3. 317-87-1NN-41-005t01 for a single row version with 8 pins becomes 317-87-108-41-005101.



317-PP-1NN-41-022101
Straight socket connector elevated, single row, grid spacing 1.778 mm
Avaluablity rerom
2 to 38 contacts
${ }_{\text {(standard number of contacts: }}^{28 \text { ) }}$


317-PP-1 NN-41-026101
Straight socket connector elevated, single row, grid spacing 1.778 mm AvalLabluty from 2 to 38 contacts (standard number of contacts: 38)


317-PP-1NN-01-687101
Straight socket connector, single row, grid spacing 1.8 mm for LCD-display
2 to 42 contacts (standard number of contacts: 42)



PIN CONNECTORS 1.778 mm

WWW.PRECIIP.COM TEL +41324210400 SALESePRECIIP.COM PCB pin connectors, solder tail with reduced pin spacing $1,778 \mathrm{~mm}$ TECHNICAL SPECIFICATIONS (for general specs, see page 43) Black glass filled polyester PCT-GF30-FR contact Brass CuZn36Pb3 (C36000) CONNECTING PIND $\quad 0.47 \mathrm{~mm}$ MEChanical LIFE Min. 500 cycles ${ }^{\text {Rated CURRENT }}$

Min. $1^{1} 000$ Vems
For corresponding socket connectors, see page 55 . ORDERING INFORMATION ROHS COMPLIANT PARTS $\begin{array}{lll}\text { PP PLATING CODE } & \begin{array}{l}\text { TERMINATON } \\ 0\end{array} & \begin{array}{l}\text { CONNECTING PIN } \\ 0.25 ~ \mu m ~ g o l d ~\end{array} \\ 0.25 \mu \mathrm{~m} \text { gold }\end{array}$ $\begin{array}{lll}10 & 0.25 \mu \mathrm{~m} \text { gold } & 0.25 \mu \mathrm{~m} \text { gold } \\ 80 & \text { Tin } & \text { Tin }\end{array}$

350-PP-1NN-00-012101
Straight pin connector, single row, grid spacing 1.778 mm AVALLABLITY FROM $\quad 2$ to 38 contacts (standard number of contacts: 38)
single row / solder tall


## SOCKET CONNECTORS 2 mm

## preci-dip

 single row / double row / soldertallWWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePRECIIIP.COM

TECHNICAL SPECIFICATIONS (For general spess, see Page ais
InsULATOR Black glass filled polymer LCP-GF30-FR
Sleeve Brass CuZn36Pb3 (C36000)
CONTACT CLIP ( 6 FINGER) Beryllium copper (C17200)

| matring pins |
| :--- |
| Fopces |

(polished steel gauge $\varnothing 0.46 \mathrm{Nm}$ )
Mechanical LIFE Min. 500 cycles
Ta. 10
Dielectric strenath Min. $1^{1} 000$ Vzn
For corresponding pin connectors, see pages 64-68.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATINGCOOE SLEEVE CLIP
Fash gold
075 mo sold

plating on request (see page 178 for plating specs): g. 833-87- of poles. Replace NNN with the requested number of poles e.83-8-NNN-10-001101 for a double row version with 16 pins comes 833-87-016-10-00110

|  |
| :--- |
|  |
| on |
| 0.0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |
|  |
|  |
|  |

831-PP-NNN-10-273101
Straight socket connector, low profile height 2.8 mm , solder tail, single row avalablitiverom 2 to 50 contact tandard number of contacts: 50)


Straightsorn-10-27310
Straight socket connector, low profile height 2.8 mm , solder tail, double row
AvalLablutr from
4 to 100 contacts
(standard number of contacts: 100)


831-PP-NNN-10-001101
Straight socket connector, height 4.2 mm , solder tail, single row
AValLablutry from $\quad 2$ to 50 contacts
(standard number of contacts: 50 )


## 833-PP-NNN-10-001101

Straight socket connector, height 4.2 mm , solder tail, double row
avallablity from $\quad 4$ to 100 contacts (standard number of contacts: 100)


## SOCKET CONNECTORS 2 mm

## preci-dip

INGLE ROW / Double row / soldertall
WWW.PRECIIP.COM TEL +41324210400 SALESePRECIIP.COM
"Hard metric" PCB socket connectors, solder tail.
TECHNICAL SPECIFICATIONS (For general specs, see page 4i)
Insulator $\left.\quad \begin{array}{l}\text { Black glass filled dolymer LCP-GFF30-FR } \\ \text { (PCT-GF30-FR for } 833 . .10-457101)\end{array}\right)$
flammablity
SLeEy UL94V-O
SLLEVE
contact CLIP (6 FINGER) Brass CuZn36Pb3 (C36000)
$\begin{array}{ll}\text { contact CLIP (6 FINGER) } & \text { Beryllium copper (C17200) } \\ \text { MATING PINs } & \emptyset 0.40 \text { to } 0.56 \mathrm{~mm}, ~ \bigvee 0.50 \mathrm{~m}\end{array}$

| Forces | 0.7 N typ. insertion $\quad 0.4 \mathrm{~N}$ |
| :--- | :--- |

. $\quad$ (ished steet gauge $\emptyset 0.46 \mathrm{~mm}$ )
Min. 500 cycles
rated current
Max. $10 \mathrm{~m} \Omega$
${ }^{\text {DIELECTRIIC STRENGTH }}$ Min. 1 'OOO VRMS
For corresponding pin connectors, see pages 64-68.
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{ll}\text { PP PLATING CODE } & \text { SLE } \\ 87 & \text { Tin } \\ 8 & \end{array}$
0.75 um gold

on request see page 18 for plating specs.
NN number of poles. Replace NNN with the requested number of poles,
eg. 833-87-NNN-10-453101 for a double row version with 16 pins ecomes 833-87-016-10-45310

831-PP-NNN-10-230101
Straight socket connector, height 4.2 mm , with clinched (right/left) solder tails, single row
AValLabllity from $\quad 3$ to 50 contacts
Istandard number of contacts: 50


Straight socket connector, height 8 mm , solder tail, double row
avalLABLITY From 4 to 100 contacts
(standard umber of contacts: 100


833-PP-NNN-10-457101
Straight socket connector, height 10.4 mm , solder tail, double row
avallablity from $\quad 4$ to 50 contacts
(standard number of contacts: 50 )


## 833-PP-NNN-10-287101

Straight socket connector, height 11.5 mm , solder tail, double row
AVALLABLITY From 4 to 100 contacts (standard number of contacts: 100)


SOCKET CONNECTORS 2 mm
preci-dip
single row / double row / soldertall
WWW.PREIIIP.COM TEL+41 324210400 SALESePREGIIIP.COM
Or, solderta plarised.
insulator Black glass filled polymer LCP-GF30-FR
sleeve Brass CuZn36Pb3 (C36000)
Mating pins
forces
MECHANICALLIFE Min. 500 cycles
rated current
contact resistance
Max 10 m
dielectric strength Min. $1^{1} 000$ Vmms
For corresponding pin connectors, see pages 64-68.
ORDERING INFORMATION ROHS COMPLIANT PARTS
${ }_{87}^{\text {Pp plating coome Sleve }}$
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \text { um gold }\end{array}$


831-PP-NNN-10-242101
Straight socket connector height 4.55 mm , solder tail, single row, polarised avallablity from

Other pin number on request


833-PP-NNN-10-24510
Straight socket connector height 4.55 mm , solder tail, double row, polarised avalLablLity from $\quad 26$ and 44 contacts

Other pin number on request


SOCKET CONNECTORS 2 mm

## SINGLE ROW / DOUBLE ROW / SOLDERTAIL / RIGHT ANGLE

WWW.PREIIIP.COM TEL+41 324210400 SALESePREGIIIP.COM
TECHNICAL SPECIFICATIONS
InsULATOR Black glass filled polymer LCP-GF30-FR
SLEEVE Brass CuZn36Pb3 (C36000)
CoNTact cLIP (6 FINGER) Beryllium copper (C17200)

| Mating pins |
| :--- |
| forces |


mechanical life Min. 500 cycles
3 A
Contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 64-68.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PPPLATING COOE SLEEVE CLIP
lash gold
st (see page 178 for plating specs.
NNN number of poles. Replace NNN with the requested number of poles,
g. 833-87-NNN-20-001101 for a double row version with 16 pins becomes 833-87-016-20-00110

831-PP-NNN-20-001101
Right angle socket connector, solder tail, single row
avallablity from 2 to 50 contacts
(standard number of contacts: 50

Right angle socket connector, solder tail, double row
AVALABLITY From $\quad 4$ to 100 contacts
(standard number of contacts: 100)


## SOCKET CONNECTORS 2 mm

WWW.PRECIIIP.COM TEL+41 324210400 SALESePRECIIIP.COM

TECHNICAL SPECIFICATIONS
Insulator $\quad$ Black glass filled polymer LCP-GF30-FR

Contact cLip ( F FINGER) Bery lium copper (C17200)
forces
(poished steel gauge $\varnothing 0.46 \mathrm{~mm}$ ) windrav
Min. 500 cycles
Contact resistance 3A
DIELECTRIC STRENGTH Min. 10 OOO
copLanarit
For corresponding pin connectors, see pages 64-68.

ORDERING INFORMATION ROHS COMPLIANT PARTS pp plating coom stevee

| Tin |
| :---: |
| Tin |
| Flash gold |


| 87 | Tin | Flash gold |
| :---: | :---: | :---: |
|  | Tin | 075 mm |



Bulk: T \& R Packaging with pick \& place cap*:
SMD socketconeor osi-PP-NN-so-00
Avallablity from 3 to 50 contact
(standard number of contacts: 50 )
For connectors having more than 12 contacts,
the coplanarity issue is to be addressed specificaly
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Bulk: } & \text { T R R Packaging with pick \& place cap*: } \\ \text { 833-PP-NNN-30-001101 } & \text { 833-PP-NNN-30-0011991 }\end{array}$
SMD socket connector, double row, perpendicular mount
avallablity from $\quad 4$ to 100 contacts
(standard number of contacts: 100)
For connectors having more than 12 contacts per row,
the coplanarity issue is to be address
recidip com for arilabily size of ted specificaly
reel, number of components per reel and packing units.
Bulk: T\&R Packaging with pick \& place cap*:
SMD socket connector, single row, perpendicular mount, polarised
AVALABLITY 22 contacts
Other pin number on request
For connectors having more than 12 contacts,
the coplanarity issue is to be addressed specifically

se consult www.precidip.com for avaliability size oftape, size o
reel, number of components per reel and packing units.
833-PP-NNN-30-245101 833-PP-NNN-30-245191
SMD socket connector, double row, perpendicular mount, polarised
AVAILABLITTY From 26 and 44 contacts
Other pin number on request
For connectors having more than 12 contacts per row
the coplanarity issue is to be addressed specifically


SOCKET CONNECTORS 2 mm
preci-dip
WWW.PRECIIIP.COM TEL+41 324210400 SALESePREGIIIP.COM
B socket co netors.SMD mount.
TECHNICAL SPECIFICATIONS (For general specs, see page ais
$\begin{array}{ll}\text { Insulator } & \begin{array}{l}\text { Black glass filled polymer LCP-GF30-FR } \\ \text { (PCT-GF30-FR for } 837 . .30-291101)\end{array}\end{array}$
flammablity
sleeve UL94V-O
SLEEVE
contact clup ( 6 finger)
Contact CLP (6 FINGER)
Mating rins Beryllium copper (CO17200)
0.40 to 0.66 mm , Ø 0.50 mm
(polished steel gause $\varnothing 0.46 \mathrm{~mm})$
0.4 ty
Meantant Min. 500 cycles
rated curren
Max. $10 \mathrm{~m} \Omega$
Dielectric strenath Min. $1^{1} 000$ Vms

For corresponding pin connectors, see pages 64-68.
ORDERING INFORMATION ROHS COMPLIANT PARTS pp plating coole
sLeveve
$\begin{array}{lll}83 & \begin{array}{l}\text { Tin }\end{array} & \text { Flash gold } \\ \text { Tin } & 0.75 \text { mm gol }\end{array}$

## 837-83-NNN-30-291101

SMD socket connector, 4 row, perpendicular mount, floating pin
AvalLaBLITY $\quad 72$ and 200 contacts
Other pin number on request


Bulk:
831-PP-NNN-40-001101 $\quad$ 831-PP-NNN-40-001191
SMD socket connector, single row, parallel mount
avallablity from $\quad 2$ to 50 contacts
(standard number of contacts: 50)
For connectors having more than 12 contacts,
lease consult www precidip.com for avail ability size of tape size of

reel, number of components per reel and packing units.

SOCKET CONNECTORS 2 mm
preci-dip
single row / double row / press-fit
WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePrRECIIIP.COM

TECHNICAL SPECIFICATIONS
insulator Black ass filled polymer LCP-GF30-FR
sLeeve $\quad$ Bronze CuSn4Pb4Zn4 (C54400)
$\begin{array}{ll}\text { contact clup (6 FINGER) } & \text { Beryllium copper ( (C17200) } \\ \text { MATING PINs } & \varnothing 0.40 \text { to } 0.66 \mathrm{~mm}, \square 0.50 \mathrm{~mm}\end{array}$
$\begin{array}{ll}\text { FORCES } & \begin{array}{l}0.7 \mathrm{~N} \text { typ. insertion } \\ \text { (polished steel gauge } \\ 0\end{array} 0.46 \mathrm{mty} \text { ). withdrawal }\end{array}$
mechanicallife Min. 500 cycles
rated current
3 A
contact resistance
Min. 10,000 V
$\begin{array}{ll}\text { DIELECTRIC STRENGTH } & \text { Min. } 1 \text { 1'000 Vms } \\ \text { PCB HoLE } & 0.7+0.07 /-0.05 \mathrm{~mm} \text { finished }(0.8 \pm 0.025 \mathrm{~mm} \text { drill }\end{array}$
For corresponding pin connectors, see pages $64-68$
ORDERING INFORMATION ROHS COMPLIANT PARTS

| PP PLATING CODE | SLEEVE | CLIP |
| :--- | :--- | :--- |
| 87 | Tin | Flash gold |
| 83 | Tin | 075 mald |


|  |  |
| :---: | :---: |
| for PCB thickness | to 2 mm |
| avalıabiut from | 2 to 50 contacts |

$\begin{array}{ll}\text { AVALLABLITY FRoM } & \begin{array}{l}2 \text { to } 50 \text { contacts } \\ \text { (standard number of contacts: } 50 \text { ) }\end{array}\end{array}$

833-PP-NNN-64-001101
Press-fit socket connector, do
for PCB thickness 1.5 to 2 mm
avallablity from 4 to 100 contacts
(
831-PP-NNN-64-242101
Press-fit tocket connector polarised, single row, compliant pin
for PCB thickness 1.5 to 2 mm
for PCB thickness 1.5 to 2 mm
avallabluty
Other pin number on request


833-PP-NNN-64-245101
Press-fit socket connector polarised, double row, compliant pi
for PCB thickness 1.5 to 2 mm
26 and 44 contacts
Other pin number on request


PIN CONNECTORS 2 mm
preci-dip
single row / double row / solder tall
WWW.PRECIIIP.COM TEL +41 $324210400 \quad$ SALESePRECIIIP.COM
"Hard metric" PCB pin connectors, solder tail.
TECHNICAL SPECIFICATIONS (For general specs, sef page 43)
InsULATOR Black glass filled polymer LCP-GF30-FR
$\begin{array}{ll}\text { comiabitity } & \text { UL94V-O } \\ \text { contact } & \text { Brass CuZner }\end{array}$
CONNECTING PINQ
MECHANCCLLINE $\quad 0.47 \mathrm{~mm}$ )

Rated durrent
Min. ${ }^{3} 1000$ Vems
For corresponding socket connectors, see pages 57-63 ORDERING INFORMATION ROHS COMPLIANT PARTS
$10 \xlongequal{\substack{\text { termination } \\ 0.25 \mu \text { g gold }}} \quad$ ConNecting pin
$\mathrm{V3}^{*} \quad \operatorname{Tin}_{\text {Tin }}^{\text {Tin }} \quad \operatorname{Tin}_{0.75 \mu \mathrm{~m} \text { gold }}$
NNN number of poles. Replace NNN with the requested number of poles,
g. 830-10-NNN-10-001101 for a single row version with 8 pins becomes 830-10-008-10-001101.


```
830-PP-NNN-10-001101
Straight pin connector, solder tail, single row
AvalLABLITY From 2 2o 50 contacts
(standard number of contacts:50)
```



832-PP-NNN-10-00110

(standard number of contacts: 100 )


830-V3-NNN-12-00210
Straight pin connector, solder tail, single row, shrouded and polarised
avalLABLITr 22 contacts
Other pin number on request


832-V3-NNN-12-002101
Straight pin connector, solder tail, double
Other pin number on request


PIN CONNECTORS 2 mm
www.pRECIIIP.com TEL +41 3242110400 SALESePREEIIIP.com
"Hard metric" PCB pin connectors, solder tail.
TECHNICAL SPECIFICATIONS (For General specs, see page 43)



## 830-PP-NNN-20-001101




832-PP-NNN-20-001101
Right angle pin connector, solder tail, double row
avalLablity from $\quad 4$ to 100 contacts
(standara numberof contacts: 100)


830-V3-NNN-22-002101
Right angle pin connector, solder tail, single row, shrouded and polarised



832-V3-NNN-22-002101
Right angle pin connector, solder tail, double row, shrouded and polarised AVaLLABLTYY $\quad 26$ and 44 contacts Other pin number on request


## PIN CONNECTORS 2 mm SINGLE ROW / DOUBLEROW / SURFACE MOUNT

preci-dip
WWW.PRECIIP.COM TEL+41324210400 SALESePRECIIIP.COM
Hard metric" PCB pin connectors, SMD mount
TECHNICAL SPECIFICATIONS (for general specs, sef page 4)


SMD pin connector sisler ore-PP-NN-sQ-
Avallablity from 3 to 50 contact
(standa For connectors having more than 12 contacts, the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Butk: } & \begin{array}{ll}\text { T \& R Packaging with pick \& place cap*: } \\ \text { 832-PP-NNN-30-001101 } & \text { 832-PP-NNN-30-001191 }\end{array}\end{array}$
SMD pin connector, double row, perpendicular mount
4 to 100 contacts
(Standard number of contacts: 100)
For connectors having more than 12 contacts per row
the coplanarity issue is to
are cols specificall
reel, number of components per reel and packing units.


Bulk: T\&R Packaging with pick \& place cap*:
830-V 3 -NNN-32-002101 830-V3-NNN-32-002191
SMD piriconnector, single row, perpendicular mount, shrouded and polarised avalability 22 contacts

Other pin number on request
For connectors having more than 12 contacts per row,
the coplanarity issue is
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of teape, size of

Bulk:
$\begin{array}{ll}\text { B32-V3-NNN-32-002101 } & \begin{array}{l}\text { T \& R Packaging with pick \& place cap*: } \\ \text { 832-V3-NNN-32-002191 }\end{array}\end{array}$
SMD pin connector, double row, perpendicular mount, shrouded and polarised
avalLabluty $\quad 26$ and 44 contacts
Other pin number on request
For connectors having more than 12 contacts per row,
the coplanarity issue is
*Please consult www.precidip.com for availability size of tape, size of

PIN CONNECTORS 2 mm
preci-dip
WWW.PRECIIP.COM TEL+41 324210400 SALESePREEIIIP.com

TECHNICAL SPECIFICATIONS (For general specs, ser Page a3)
InsULATOR Black glass filled polymer LCP-GF30-FR
contact $\quad$ EL94V-0 $\quad$ Brass CuZn36Pb3 (C36000)
CONNECTING PIN $\quad 0.47 \mathrm{~mm}$
Rated current
Dielectric strength
coplanarity
For corresponding socket connectors, see pages $57-63$. ORDERING INFORMATION ROHS COMPLIANT PARTS


| 10 |
| :---: |
|  |  |



Bulk: TR R Packaging*:
830-PP-NNN-40-001101 830-PP-NNN-40-001191
SMD pin connector, single row, parallel mou
(standard number of contacts: 50 )
For connectors having more than 12 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.


PIN CONNECTORS 2 mm
SQUARE PIN $\square 0.5 \mathrm{~mm}$ / SINGLE ROW / DOUBLE ROW / SOLDER TAIL
preci-dip
WWW.PRECIIP.COM TEL+41 324210400 SALES PPRECIIP.CoM

TECHNICAL SPECIFICATIONS (for general specs, see page ha
Black glass filled polyamide PA-GF30-FF
contact UL.94V-O
$\begin{array}{cc}\text { connecting pin } & \square 0.5 \mathrm{~mm}\end{array}$
mechanical life Min. 100 cycles
DIELECTRRC STRENG
${ }_{\text {Min. }} 500$ Vems
For corresponding socket connectors, see pages 57-63 ORDERING INFORMATION ROHS COMPLIANT PARTS

| Pp PLATING CODE |  |  |
| :--- | :--- | :--- |
| 70 | Termination <br> Flash gold | Connecting pin <br> Flash gold |



NNN number of poles. Replace NNN with the requested number of pole
e.g. 880-70-NNN-10-001101 for a single row version with 8 pins becomes

```
Straight square pin header, solder tail, single row
AvalLABLITY From 2 to 40 contacts
(standard number of contacts: 40)
```



882-NNN-M-OM
Straight square pin header, solder tail, double row
4 to 80 contacts
(standard number of contacts: 80


880-70-NNN-20-001101
Right angle square pin header, solder tail, single row (standard number of contacts: 40)

882-70-NNN-20-001101

Right angle square pin header, solder tail, double ron
avaliablity from $\quad 4$ to 80 contacts
(standard number of contacts: 80


SOCKET CONNECTORS 2.54 mm
MATING PIN $\varnothing 0.47 \mathrm{~mm}$ / SINGLE ROW / DOUBLE ROW / SOLDER TAIL
preci-dip
WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePPREGIIIP.com
profie socket connectors, solder tail.
TECHNICAL SPECIFICATIONS (For general specs, see page 43)
INSULATOR Black glass filled polyester PCT-GF30-FR
sleeve Brass CuZn36Pb3 (C36000)
contact clip (4 Finger) Beryllium copper (C17200)
0.40 to 0.52 mm

mechanical Life Min. 500 cycles
Rated current
$\underset{1 \text { Min. }}{1 \mathrm{~A}} 500$ cycles
Contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 101-108
ORDERING INFORMATION ROHS COMPLIANT PARTS
87 PR PLating COOE SLEEVE CLIP
Flash gold
0.75 um gold


## 315-PP-1NN-41-003101

Straight socket connector ultralow proike, height 2.4 mm , solder tail, single row
avalLabluty from 2 to 64 contacts
d number of contacts: 64)
Please note: ultralow version not available as double row


35-PP-NN-4I-OM-
Straight socket connector very low profile, height 3.14 mm , solder tail, single row
AvalLABLITr from
2 to 64 contacts
2 to64 contacts
(standard number of contacts: 64


415-PP-2NN-41-001101
Straight socket connector very low profile, height 3.14 mm , solder tail, double row Avaliagluir rrom $\quad 4$ to 72 contacts (standard number of contacts: 72)
Please note: ultralow version not available as double row


315-PP-1YY-01-881101
Straight socket connector very low profile, height 3.14 mm , partial
equipped 5.08 mm , solder tail, single row
avaluablity rrom
2 to 32 contacts
YY number of poles:
please consult for ordering code


## SOCKET CONNECTORS 2.54 mm

## preci-dip

## Sating pin 0.47 mm /Singerow/ Doublerow/soldertal

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TECHNICAL SPECIFICATIONS (For general specs, seg page 43)


For corresponding pin connectors, see pages 101-108.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATNGCODE SLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 075\end{array}$
ter plating on request (see page 178 for plating specs):
$\mathbf{N}$ number of poles. Replace $\mathbf{N N}$ with the requested number of poles.
e.g. 410-83-2NN-41-001101 for a double row version with 16 pins
becomes 410-83-216-41-001101.

$$
\begin{aligned}
& \text { 310-PP-1NN-41-001101 } \\
& \begin{array}{l}
\text { Straight socket connector height } 4.2 \mathrm{~mm} \text {, solder tail, single row } \\
\text { Avaluablity rrom } \quad 2 \text { to } 64 \text { contacts }
\end{array} \\
& \text { avallablutry from } 2 \text { to } 64 \text { contacts } \\
& \text { (standard number of contacts: 64) }
\end{aligned}
$$



Straight socket connector height 4.2 mm , solder tail, double row
AvaiLABIITY From $\quad 4$ to 72 contacts
(standard number of contacts: 72)


SOCKET CONNECTORS 2.54 mm

## MATING PIN 0.47 mm /SINGLE ROW/DOUBLEROW/SOLDERTALL

preci-dip
WWW.PREIIIP.COM TEL+41 324210400 SALESePREGIIIP.COM

TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
Black glass filled polyester PCT-GF30-FR
SLEEVE Brass CuZn36Pb3 (C36000)
$\begin{array}{ll}\text { Mating Ping (4 F Finger) } & \text { Berylium copper } \\ 0.40 \text { to } 0.56 \mathrm{~mm}\end{array}$
Forces $\quad \begin{gathered}2 \mathrm{~N} \text { typ. insertion } \\ \text { (polished stel gauge } \varnothing \\ \varnothing 0.43 \mathrm{~mm} \text { ) }\end{gathered}$
Mechanical LIFE Min. 500 cycles
Rated current
${ }^{3} \mathrm{~A}$
contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 101-108
ORDERING INFORMATION ROHS COMPLIANT PARTS
87 SPPLATIGGCODE CLEEVE
ash gold
33 Tin 0.75 mm gold

$311-\mathrm{PP}-1$ NN-41-001101
Straight socket connector height 4.1 mm , long solder tail, single row avalLablity from 2 to 64 contacts (standard number of contacts: 64)

tor height 4.1 mm , long solder tail, double row
avallablity from 4 to 72 contacts
(standard number of contacts: 72)

## MATING PIN $\varnothing 0.47 \mathrm{~mm}$ / SINGLE ROW / DOUBLE ROW / TRIPLE ROW

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Socket connectors, solder tail with stand off.
TECHNICAL SPECIFICATIONS (FOR General specs, see page 43)

| insulator | Black glass filled polyester PCT-GF30-FR |
| :---: | :---: |
| flammabluty | UL 94V-0 |
| sleeve | Brass CuZn36Pb3 (C36000) |
| contact clip (4 Finger) | Beryllium copper (C17200)) |
| mating pino | 0.40 to 0.56 mm |
| forces | 2 N typ. insertion $\quad 1 \mathrm{~N}$ typ. withdrawal (polished steel gauge $\varnothing 0.43 \mathrm{~mm}$ ) |
| mechanical life | Min. 500 cycles |
| rated current | 3 A |
| contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| dielectric strenath | Min. $1^{10000 ~ V r m s ~}$ |
| For corresponding pin connectors, see pages 101-108. |  |
| ORDERING INFOR pp plating code | MATION ROHS COMPLIANT PARTS sleeve chio |
| 87 | Tin Flash gold |
| 83 | Tin $\quad 0.75 \mathrm{\mu m}$ gold |



Other plating on request (see page 178 for plating specs).
NN number of poles. Replace $\mathbf{N N}$ with the requested nu.mber of poles,
e.g. $410-83-2 \mathrm{NN}-01-640101$ for a double row version with 16 pins
becomes $410-83-216-01-640101$.

| 310-PP-1NN-01-640101 |  |
| :---: | :---: |
| Straight socket connector height 4.2 mm , solder tail, single with standoff |  |
| allablity fr | 2 to |
|  | (standard number of contacts: 32) |



410-PP-2NN-01-640101
Straight socket connector height 4.2 mm , solder tail, double row,
with standoff
4 to 64 contacts
(standard number of contacts: 64)


410-PP-3NN-01-640101
Straight socket connector height 4.2 mm : solder tail, triple row,
with standoff
9 to 96 contacts
(standard number of contacts: 96 )


310-PP-1NN-01-75410
Straight socket connector height 4.2 mm , with clinched (right/left)
solder tails, single row, with standoff
AvalLLABLITY from
3 to 32 contacts
AVALLABLIN (standard number of contacts 32)


SOCKET CONNECTORS 2.54 mm
preci-dip
MATING PIN $\varnothing 0.47 \mathrm{~mm} /$ DOUBLE ROW / SOLDER TAIL
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TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
Black glass filled polyester PCT-GF30-FR
sLEEVE Brass CuZn36Pb3 (C36000)

$\begin{array}{ll}\text { FORCES } & \begin{array}{c}2 \mathrm{~N} \text { typ. insertion } \\ \text { (polished stel gauge } \varnothing \\ 0.43 \mathrm{~mm} \text { ) }\end{array} 1 \mathrm{Ntyp} \text {. withdrawa }\end{array}$
Mechanical LIFE Min. 500 cycles
Rated current
3 A
$\begin{array}{ll}\text { contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { Diekectric strenath } & \text { Min. } 1^{\prime} \text { '000 Vris }\end{array}$
For corresponding pin connectors, see pages 101-108.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating CODE CLEEVE CLIP
\(\begin{array}{lll}87 \& \begin{array}{ll}Tin \& Flash gold <br>

83 \& Tin\end{array} \&\)|  lin  |  |
| :--- | :--- | <br>

\& \& \end{array}

805-PP-YYY-10-22910
Straight socket connector height 4.2 mm . solder tail, double row
partially equipped 5.08 mm
availablutr from $\quad 4$ to 32 contacts
please consult for ordering code


SOCKET CONNECTORS 2.54 mm

## MATING PIN $00.47 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW / SOLDERTALL

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TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
ass filled polyester PCT-GF30-FR
flammabluty UL9
$\begin{array}{ll}\text { sLEEVE } & \text { Brass CuZn36Pb3 (C36000) } \\ \text { contact CLIP (4 IFINGER) } & \text { Beryllium copper (C17200) }\end{array}$
$\begin{array}{ll}\text { Mating ping } & 0.40 \text { to } 0.56 \mathrm{~mm}\end{array}$
$\begin{array}{cc}\text { FORCES } & \begin{array}{c}2 \mathrm{~N} \text { typ. insertion } \\ \text { (polished stel gauge } \varnothing \\ 0.43 \mathrm{~mm} \text { ) }\end{array} 1 \mathrm{Ntyp} \text {. withdrawa }\end{array}$
Mechanical LIFE Min. 500 cycles
Rated current
3 A
contact resistance Max. 10 m
For corresponding pin connectors, see pages 101-108.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating COOE SLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & \end{array}$

316-PP-1 NN-41-XXX10
Interconnect socket strip, solder tail, single row
avalabbitr from 2 to 64 contacts
(standard number of contacts: 64
Other plating on request (see page 178 for plating specs).
NN number of poles. Replace $\mathbf{N N}$ with the requested number of poles.
8.8. 416-83-2NN-41-007101 for a double row version with 16 pins
becomes 416-83-216-41-007101


416-PP-2NN-41-XXX101
Interconnect socket strip, solder tail, double row
AVALLABLITY From $\quad 4$ to 72 contacts
hand fumber of contacts: 72


AVAILABLE CONTACT LENGTHS

|  | L2 (mm) |  | ${ }_{\text {R2 }}^{\text {(mm) }}$ | xxx 000 E |
| :---: | :---: | :---: | :---: | :---: |
| 6 | 4.2 | 1 | 0.51 | 006 |
| 7 | 4.2 | 1 | 0.51 | 018 |
| 8 | 4.2 | 1 | 0.51 | 003 |
| 9 | 4.85 | 1 | 0.46 | 012 |
| 10 | 4.2 | 1 | 0.51 | 007 |
| 11 | 4.2 | 0.85 | 0.51 | 002 |
| 12 | 4.2 | 1 | 0.51 | 008 |
| 13 | 4.2 | 1 | 0.51 | 009 |
| 15 | 4.2 | 1 | 0.51 | 001 |
| 18 | 4.2 | 1 | 0.51 | 011 |
| 22 | 4.2 | 1 | 0.51 | 004 |
| 33 | 4.2 | 1.18 | 0.51 | 013 |

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nnectors, solder tail.
TECHNICAL SPECIFICATIONS (for general specs, see page 43)
Insulator Black glass filled polyester PCT-GF30-FR
sleeve Brass CuZn36Pb3 (C36000)
Contact clip P4 Finger) Beryllium copper (C17200)
mating ping 0.40 to 0.56 mm
forces

MECHANICAL LIFE
${ }_{3 \text { Min. }} 500$ cycles
Rated current
3 A
contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 101-108
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PP PLATMG CODE } & \text { SLEEVE } & \text { CLIP } \\ 87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \mu \mathrm{~m} \text { gold }\end{array}$

801-PP-NNN-10-132101
Straight socket connector height 7 mm , solder tail, single row
avallability from $\quad 2$ to 50 contacts
(standard number of contacts: 50)


Straight
AValLablity rrom 4 to 100 contacts
standard mber of contacts: 100


805-PP-NNN-10-132101
Straight socket connector height 7 mm , solder tail, triple row
AVALLABLITY FRom 9 to 96 contacts
(standard number of contacts: 96)


801-PP-NNN-10-173101
Straight socket connector height 7 mm , with clinched (right/left)
solder tails, single
AvalLABILTY From
3 to 50 contacts (standard number of contacts: 50)


Due to technical progress, all information provided is subject to change without prior notice.

SOCKET CONNECTORS 2.54 mm

## MATING PIN $\infty 0.47 \mathrm{~mm}$ / SINGLE ROW / DOUBLE ROW / SOLDER TALI/

WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePrRECIIIP.COM
ectors, solder tail.
TECHNICAL SPECIFICATIONS (For general specs, see page 43
InsuLator Black glass filled polyester PCT-GF30-FR
SLeeve Brass CuZn36Pb3 (C36000)


mechanical LIFE Min. 500 cycles

contact resistance Max. $10 \mathrm{~m} \Omega$
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP Plating COOE CLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & \end{array}$
NN number of poles. Replace NN with the requested number of poles,
e.g. 499-83-2NN-10-003101 for a double row version with 16 pins
becomes 499-83-216-10-00310

399-PP-1NN-10-003101
Right angle socket connector, single row
avallabluty from $\quad 2$ to 64 contacts
totandard number of contacts. 64

499-PP-2NN-10-003101
Right angle socket connector, double row
avallabluty from 4 to 72 contacts
standara number of contacts 72 :


```
Socket connectors, SMD perpendicular mount.
```

TECHNICAL SPECIFICATIONS (for general specs, see page 43)

sleeve Brass CuZn36Pb3 (C36000)
$\begin{array}{lll}\text { CONTACT CLLP (4 FINGER) } & \text { Beryllium copper (C17200) } \\ \text { MATING PIN }\end{array}$
mating pin 0.40 to 0.56 mm
forces $\underset{\text { (polished stel get gauge }}{\text { 2. }} \downarrow$
MECHANICAL LIFE
rated current
contact resistance ${ }^{3}$ A
$\begin{array}{ll}\text { Contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { Dilececric strength } & \text { Min. } 10000 \text { Vzms }\end{array}$
coplanartive
SMD TERMINATIONs
For corresponding pin connectors, see pages 101-108.
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PP PLating COOE } & \text { SLEEVE } & \text { CLIP } \\ 87 & \text { Tlash gold }\end{array}$
-3...
Tin $\quad \begin{gathered}\text { Flash gold } \\ 0.75 \mu \mathrm{~m} \text { gold }\end{gathered}$
$\begin{array}{ll}\text { Bulk: } & \text { T \& R Packaging }{ }^{*} \text { : } \\ \text { 314-PP-1NN-01-899101 } & \text { 314-PP-1NN-01-89919 }\end{array}$
SMD socket connector, low profile, single row, perpendicular mount with self-levelling floating contacts
AVALLABLITY FRom $\quad 2$ to 12 contacts
(standard number of contacts: 12
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidi
reel, number of components per reel and packing units,
$\begin{array}{ll}\text { Bulk: } & \begin{array}{ll}\text { T\&RPackaging*: } \\ \text { 414-PP-2NN-41-134101 } & \text { 414-PC-2NN-41-134191 }\end{array} \\ \text { SHP }\end{array}$
$\begin{array}{ll}\text { Bulk: } & \begin{array}{ll}\text { T\&RPackaging*: } \\ \text { 414-PP-2NN-41-134101 } & \text { 414-PP-2NN-41-134191 }\end{array}\end{array}$
SMD socket connector, low profile, double row, perpendicular mount
with self-levelling floating contacts
Aval LaBlITY From
4 to 64 contact
$\begin{array}{ll}\text { AVALLABLITY FROM } & 4 \text { to } 64 \text { contacts } \\ \text { (standard number of contacts: } 64)\end{array}$
For connectors having more than 9 contacts per row,
the coplanarity issue is to be addresed
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Bulk: } & \begin{array}{l}\text { T \& R Packaging with pick \& place cap*: } \\ \text { 310-PP-1NN-41-105101 } \\ 310-P P-1 N N-41-105191\end{array}\end{array}$ SMD socket connector, single row, perpendicular mount
with gull-wing terminations
AvalıaвLity from 3 to 64 contacts
(standard number of contacts: 64) For connectors having more than 9 contacts, For connectors having more than contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.
Bulk:
$T \& R$ Packaging with pick \& place cap*:
410-PP-2NN-41-10510 410-PP-2NN-
SMD socket connector, double row, perpendicular mount
with gull-wing terminations
avallabllity from 4 to 72 contacts
(standard number of contacts: 7 ) For connectors having more than 9 contacts per row *Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.


$$
\begin{array}{l|l|l|}
1 & -2.54- \\
\hline \\
\hline 3.7^{2.4} \\
\hline
\end{array}
$$





Due to technical progress, all information provided is subject to change without prior notice.

SOCKET CONNECTORS 2.54 mm
MATING PIN $\emptyset 0.47 \mathrm{~mm} /$ SINGLE ROW / SURFACE MOUNT
WWW.PRECIIIP.COM TEL +41324210400 SALESePREEIIIP.CoM
Sclet octors SMD parallel mount.
TECHNICAL SPECIFICATIONS (for general specs, see page 43)
Black glass filled polyester PCT-GF30-FR
sleeve Brass CuZn36Pb3 (C36000)
Contact clip (4 Finger) Beryllium copper (C17200)
mating ping
0.40 to 0.56 mm

FORCES $\quad \begin{gathered}2 \mathrm{~N} \text { typ. insertion } \\ \text { (polished steel gauge } \\ \varnothing 0.43 \mathrm{~mm} \text { ) }\end{gathered}$
Mechanical LIFE Min. 500 cycles
Rated curent
rated current
3 A
Contact resistance Max. $10 \mathrm{~m} \Omega$
DiELECTRIC STREN
Coplanarity 000 Vems
For correspons Max. 0.1 mm (measured on 25 mm long connectors)
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating Coom sleeve clip
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \text { нm gold }\end{array}$
Bulk: T\&RPackaging*:
310-PP-1NN-41-205101 310-PP-1NN-41-20519
SMD socket connector, single row, para
AVALITIT From
2 to 64 contacts
(standard number of contacts: 64)
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.

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TECHNICAL SPECIFICATIONS (For general specs, see page 43
Insulator Black glass filled polyester PCT-GF30-FR

| tammazir | UL 94V-0 |
| :---: | :---: |
| sleeve | Bronze CuSn4Pb4Zn4 (C54400) |
| CONTACT CLIP (4 Finger) | Beryllium copper (C17200) |
| mating ping | 0.40 to 0.56 mm |
| forces |  |
| mechanical life | Min. 500 cycles |
| rated current | 3 A |
| contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| dielectric strenath | Min. ${ }^{1} 0000 \mathrm{~V}$ ems |
| РСВ ноLE ${ }^{\text {® }}$ | $1 \mathrm{~mm}+0.09 /-0.06 \mathrm{~mm}$ finished ( $1.15 \pm 0.025 \mathrm{~mm}$ drill) |

ORDERING INFORMATION ROHS COMPLIANT PARTS

| lating coom | steeve | clip |
| :---: | :---: | :---: |
| 87 | Tin | Flash gold |
| 83 | Tin | 0.75 um gold |

ther plating on request (see page 178 for plating specs). NN number of poles. Replace $\mathbf{N N}$ with the requested number of poles, e.g. 346-83-1 NN-41-036101 for a single row version with 8 pins becomes 46-83-108-41-036101.


$$
0.71 \not
$$

Press-fit socket connector,double row, compliant pin
for PCB thickness 1.5 to
for PCB thickness 1.5 to 2.5 mm
AVALLABLITY From $\quad 4$ to 72 contacts
(standard number of contacts: 72)


346-PP-1 NN-41-035101
Press-fit socket connector,single row, compliant pin
Press-cit socket connector,simm
for PCB thickness $2.1 t o .2 .2 \mathrm{~mm}$
avallablitr from 2 to 64 contacts
(standard number of contacts: 64)


446-PP-2NN-41-035101
Press-fit socket connector, double row, compliant pin
$\begin{aligned} \text { for PCB thickness } & 2.1 \text { to } 0.2 \mathrm{~mm} \\ \text { avallablity rrom } & 4 \text { to } 72 \text { contacts }\end{aligned}$
(standard number of contacts: 72

$0.71 \backsim$

SOCKET CONNECTORS 2.54 mm
preci-dip

## MATING PIN 0.47 mm / SINGLE ROW / DOUBLE ROW / PRESS-FIT

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信
TECHNICAL SPECIFICATIONS (For general specs, see page 4)
Black glass filled polyester PCT-GF30-FR
SLEEVE Bronze CuSn4Pb4Zn4 (C54400)
contact clup (4 FINGER) Beryllium copper (C17200)
mating pin 0.40 to 0.56 mm
forces

Mechanical LIFE
rated current
contact resistance
Dile lectricic stenath
Hecme strength Min. $110 \mathrm{~m} \Omega$

For corresponding pin connectors, see pages 101-108.
ORDERING INFORMATION ROHS COMPLIANT PARTS
pp plating coode sleeve clip

| 87 | Tin | Flash gold |
| :--- | :--- | :--- |
| 83 |  |  |
| Tin |  |  |

NN number of poles. Replace NNN with the requested number of poles,
.g. 801-87-NNN-65-410101 for a single row version with 8 pins becomes 1-87-008-65-41010


803-PP-NN-65-4
Press-fit receptacle socket height 7 mm , double row, compliant pin
for PCB thickness 1.5 to 2.5 mm
AVALLABLITY From $\quad 4$ to 100 contacts


WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePRECIIIP.COM

TECHNICAL SPECIFICATIONS (For general specs, see page 43)
Insulator Black glass filled polyester PCT-GF30-FR sleeve Brass CuZn36Pb3 (C3600
$\begin{array}{ll}\text { Contact clip (4 FINGER) } & \text { Beryllium copper (CC17200) } \\ \text { Mating pin } & 0.40 \text { to } 0.56 \mathrm{~mm}\end{array}$
mating pin
forces

MECHanical LIFE
$\underset{3 \text { Min. } 500 \text { cycles }}{ }$
rated current
3 3
Max. 10
contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 101-108.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PPPLATINGCODE SLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \text { um gold }\end{array}$


322-PP-1NN-41-001101

| Wire-wrap socket connector height $4.9 \mathrm{~mm}, 2$-level, single row |
| :--- |
| Avall |
| to 64 conlury from |

aValLABLITY From $\quad 2$ to 64 contacts (standard number of contacts: 64)


422-PP-2NN-41-001101
Wire-wrap socket connector height $4.9 \mathrm{~mm}, 2$-level, double row
AVALABLITr from
4 to 72 contacts (standard number of contacts: 72)


323-PP-1NN-41-001101
Wire-wrap socket connector height 4.9 mm , 3 -level, single row
$\begin{array}{ll}\text { avalLABLITY FRoM } & \left.\begin{array}{l}2 \text { to } 64 \text { contacts } \\ \text { (standard number of contacts: 64) }\end{array}\right)\end{array}$


423-PP-2NN-41-001101
Wire-wrap socket connector height $4.9 \mathrm{~mm}, 3$-level, double row
AVALLABLITY FROM 4 to 72 contacts (standard number of contacts: 72)


SOCKET CONNECTORS 2.54 mm
preci-dip

## SATNG PIN 0.47 mm/Singerow/ DOUBLEROW/WIRE-WRAP

WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePREGIIIP.COM
n for board stacking.
TECHNICAL SPECIFICATIONS (for general specs, se page 43)
Black glass filled polyester PCT-GF30-FR
SLEEVE Brass CuZn36Pb3 (C36000)
contact CLIP (4 IINGER) Beryllium copper (CC17200
MATMGPIN $\quad 0.40$ to 0.56 mm

MECHANICAL LIFE Min. 500 cycles
Rated current
3 A
Contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 101-108
ORDERING INFORMATION ROHS COMPLIANT PARTS
${ }_{83}$ Pp PLating Coode sleeve
Clı
ther plating on request (see page 178 for plating specs).
NN number of poles. Replace $\mathbf{N N}$ with the requested number of poles
.g. 426-83-2NN-41-001101 for a double row version with 16 pins becomes 426-83-216-41-001101

326-83-1NN-41-XXX101
Wire-wrap socket connector with connecting pin, height 4.9 mm , single row
avalıablity from 2 to 64 contacts
(standard number of contacts: 64)


426-83-2NN-41-XXX101
Wire-wrap socket connector with connecting pin, height 4.9 mm , double row
avallability from $\quad 4$ to 72 contacts
(standard number of contacts: 72)

available contact lengths

| CONTACt Lenath L(mm) | ww-LEvEL |  |
| :---: | :---: | :---: |
| 5.9 | 1 | 001 |
| 8.9 | 2 | 002 |
| 11.9 | 3 | 003 |

SOCKET CONNECTORS 2.54 mm MATING PIN $\varnothing 0.47 \mathrm{~mm} / \mathrm{SINGLE}$ ROW / CARRIER ASSEMBLIES
preci-dip
WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePREEIIIP.COM
"Zero profile" socket connectors. Single socket contacts for solder mount into PCB, supplied on disposable carriers
TECHNICAL SPECIFICATIONS (for general specs, se page 4)
Insulator Black glass filled polyester PCT-GF30-FR
sleeve Brass CuZn36Pb3 (C36000)
Contact clup (4 FINGER) Beryllium copper (C 17200
mating pin 0.40 to 0.56 mm
forces

MECHanical LIFE
${ }_{3 \text { Min. }} 500$ cycles
rated current
${ }^{3} \mathrm{~A}$
$\begin{array}{lll}\text { Contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { OIELECTRIC STRENGTH } & \text { Min. } 1000 \text { V }\end{array}$
For corresponding pin connectors, see pages 101-108
ORDERING INFORMATION ROHS COMPLIANT PARTS
PPPLATINGCOOE SLEEVE CLIP
${ }_{87} \quad$ Tin $\quad$ Flash gold

712-PP-1NN-41-001101
Single row carrier with standard socket contact with solder tail
avalLablutr from 2 to 64 contacts (standard number of contacts: 64)

Doubl row disposable carrier strips on reques

ther plating on request (see page 178 for plating specs).
NN number of poles. Replace $\mathbf{N N}$ with the requested nu.mber of poles,
g. 714-83-1 NN-41-001101 for a single row version with 8 pins becomes

714-83-108-41-001101.


714-PP-1NN-41-001101
Single row carrier with low profile contact
for solder mount into PCB hole $\varnothing 1.4-1.8 \mathrm{~mm}$, PCB thickness 1 to 2.6 mm AVALLABLITY From 2 to 64 contacts landard number of contacts: 64)

Double row, disposable carrier strips on request


714-PP-1NN-41-014101
Single row carrier with low profile contact
for solder mount into PCB hole $\varnothing 1.4-1.8 \mathrm{~mm}$, PCB thickness 1 to 5 mm AVALLABLITY From 2 to 64 contacts
(standard number of contacts: 64)

Double row, disposable carrier strips on request


SOCKET CONNECTORS 2.54 mm MATING PIN $\varnothing 0.47 \mathrm{~mm} /$ SINGLE ROW / CARRIER ASSEMBLIES
preci-dip
MATING PIN $\varnothing 0.47 \mathrm{~mm} /$ SINGLE ROW / CARRIER ASSEMBLIES
WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePRECIIIP.COM
"Zero profile" socket connectors. Single socket contacts for solder and press-fit solderless mount into PCB, supplied on disposable carriers.
TECHNICAL SPECIFICATIONS (for general specs, see page 43)
Black glass filled polyester PCT-GF30-FR
SLEEVE Brass CuZn36Pb3 (C36000)
Contact clip (3 Finger) Beryllium copper (C17200)
0.40 to 0.52 mm
forces
1 Ntyp . insertion
(polished steel gauge $\varnothing$. $\quad 0.4 \mathrm{~N} \mathrm{~N} \mathrm{typ}$. withdrawal
0.4 mm )
MECHANICALLIFE Min. 500 cycles
rated current
3 A
Contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 101-108.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PPPLATINGCOOE SLEEVE CLIP
Flash gold
0.75 um gold

er plating on request (see page 178 for plating specs.
NN number of poles. Replace NN with the requested number of poles,
e.g. $714-83-1 \mathrm{NN}-31-018101$ for a single row version with 8 pins becomes 14-83-108-31-01810

714-PP-1NN-31-012101
Single row carrier with ultra thin, low profile contact
or solder mount into PCB hole $\varnothing$ Q $1-1.3 \mathrm{~mm}$, PCB thickness 1 to 2.4 mm
avalablity from $\quad 2$ to 64 contacts
(standard number of contacts: 64


Double row, disposable carrier strips on reques

714-PP-1NN-31-018101
Single row carrier with ultra thin, low profile contact
for solder mount into PCB hole $\varnothing 1-1.3 \mathrm{~mm}$, PCB thickness 1 to 3.4 mm avallablity from $\quad 1$ to 64 contacts
(standard number of contacts: 64)

Double row, disposable carrier strips on request


714-PP-1NN-31-008101
Single row carrier with contacts for solderless press-fit mount into plated trough PCB hole $\varnothing 1.05 \pm 0.05 \mathrm{~mm}$ finished, PCB thickness 1.5 to 2.5 mm avallability from 2 to 64 contacts
(standard number of contacts: 64


Double row, disposable carrier strips on request

SOCKET CONNECTORS 2.54 mm

## MATING PIN $00.76 \mathrm{~mm} / \mathrm{SINGLE}$ ROW / DOUBLE ROW / SOLDERTAIL

## preci-dip

WWW.PRECIIP.COM TEL+4132421 0400 SALESSPREEIIP.COM
profile socket connectors, solder tail.
TECHNICAL SPECIFICATIONS (for general specs, see page 43)
Black glass filled polyester PCT-GF30-FR
sleeve Brass CuZn36Pb3 (C36000)
CoNTACT CLIP ( 6 FINGER)
MATING PINS

| MATING PINS | $\varnothing 0.70$ to $0.90 \mathrm{~mm}, ~$ |
| :--- | :--- |
|  |  |
| FORCES | 0.635 m |

(polished steel gauge $\varnothing 0.76 \mathrm{~mm}$ )
MEChanical LIFE Min. 500 cycles
Rated CurRent
3 A
contact resistance Min. 11000 Vrms
For corresponding pin connectors, see pages 109-119.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating COOE SLEEVE CLIP
ash gold
$93 \quad \mathrm{Tin}$ in


801-PP-NNN-10-268101
Straight socket connector, very low profile, height 2.95 mm , solder tail, single row


803-PP-NNN-10-268101
Straight socket connector, very low profile, height 2.95 mm , solder tail. double row
avalLablutr from $\quad 4$ to 72 contacts
(stalard


WWW.PRECIIIP.COM TEL +41324210400 SALESePREEIIIP.COM
Very low profile socket connectors, solder tail.
TECHNICAL SPECIFICATIONS (for general specs, see page 43
Insulator Black glass filled polyester PCT-GF30-FR
sLeve $\quad$ Brass CuZn36Pb3 (C36000)
CoNTact CLIP (6 FiNGER) Beryllium copper (C17200)
MATING PINS $\quad \quad \quad 0.70$ to $0.90 \mathrm{~mm}, \boxtimes 0.635 \mathrm{~mm}$

| . 2 N typ. insertion (polished steel gauge $\varnothing 0.76 \mathrm{Nm}$ typ. withdrawal $)$ |
| :--- |

MECHANICALLIFE Min. 500 cycles
rated current
3 A
Contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 109-119.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATINGCOOE SLEEVE CLIP
lash gold
075 mo sold
her plating on request (see page 178 for plating specs.
NN number of poles. Replace NNN with the requested number of poles
E.g. 803-87-NNN-10-012101 for a double row version with 16 pins becomes 803-87-016-10-01210

## 801-PP-NNN-10-012101

Straight socket connector, low profite, height 4.2 mm , solder tail, single row AVALLABLITY From 2 to 32 contact (standard number of contacts: 32)


803-PP-NNN-10-012101
Straight socket connector, low profile, height 4.2 mm , solder tail, double row
AVALLABLITY From 4 to 64 contacts
(standard number of contacts: 64)


805-PP-NNN-10-012101
Straight socket connector, low profile, height 4.2 mm , solder tail, triple row
AVALLABLITTY From $\quad 9$ to 96 contacts
(standard number of contacts: 96)


801-PP-YYY-10-45810
Straight socket connector, low profile, height 4.2 mm , solder tail, single row,
partially equipped 5.08 mm
2 to 16 contacts
YYY number of poles
please consult for ordering code


SOCKET CONNECTORS 2.54 mm

## MATING PIN $\varnothing 0.76 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW / TRIPLE ROW SOLDERTAL

## preci-dip

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TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { flammablity } & \quad \text { UL.94V-O } \\ \text { sLeveve } & \text { Brass CuZn36Pb3 (C36000) }\end{array}$
ConTact CLIP (6 Finger) Berylium copper (C17200)
$\begin{array}{ll}\text { Mating pins } & \quad 0.70 \text { to } 0.90 \mathrm{~mm}, ~ \\ \text { ROCES }\end{array}$
(20lished steel gauge $\varnothing 0.76 \mathrm{~mm}$ ). withdrawal
Mechanical LIFE Min. 500 cycles
rated curbent
${ }_{3 \text { Min. }} 500$ cycles
contact resistance
Max.
For corresponding pin connectors, see pages 109-119.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATING CODE SLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \text { нm gold }\end{array}$


Other plating on request (see page 178 for plating specs).
g. 803-87-NNN-10-001101 for a double the requested number of poles
cose $803-87-016-1001101$ for a double row version with 16 pins
becomes 803-87-016-10-00110

801-PP-NNN-10-001101
Straight socket connector, height 7 mm , solder tail, single row
avalLablity from $\quad 2$ to 50 contacts
(standard number of contacts: 50)


Bulk:

Straight socket connector, height 7 mm , solder tail, double row
AvalLasilury ream 4 to 100 contacts
(standard number of contacts: 100)
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.


805-PP-NNN-10-001101
Straight socket connector, height 6.9 mm , solder tail, triple row AvalLablity from 9 to 96 contacts
(standard number of contacts: 96)


SOCKET CONNECTORS 2.54 mm
preci-dip
MATING PIN $\varnothing 0.76$ mm / SINGLE ROW / SOLDERTAL
WWW.PRECIIP.COM TEL+4132421 0400 SALESe@PRECIIIP.com
Socket coonectors, solder tail
TECHNICAL SPECIFICATIONS (for general specs, see page 43)
Black gass filled polyester PCT-GF30-FR
Sleeve Brass CuZn36Pb3 (C36000)
CONTACT CLIP (6 FINGER) Beryllium copper (C17200)

MECHANICALLIFE Min. 500 cycles
Rated current
3A
contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 109-119.
ORDERING INFORMATION ROHS COMPLIANT PARTS
ppplatingcoor sleeve clip
N plating on request see page 178 for plating specs.
NN number of poles. Replace NNN with the requested number of pole g. 801-87-NNN-10-143101 for a single row version with 16 pins becomes 801-87-016-10-143101

801-PP-YYY-10-101101
Straight socket connector, height 7 mm , solder tail, single row,
partially equipped 5.08 m
AvalLabluty from $\quad 2$ to 25 contacts
f poles:
please consult for ordering code


801-PP-NNN-10-143101
Straight socket connector, height 7 mm with clinched (right/left) solder tail.
single row
avallablutry from 3 to 50 contacts
(stand number contacts: 50


## MATING PIN $\varnothing 0.76 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW / TRIPLE ROW

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TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
ass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { flammablity } & \text { UL 94V-0 } \\ \text { SLEEve } & \text { Brass CuZn36Pb (C36000) }\end{array}$
Contact CLIP (6 FINGER) Beryllium copper (C17200)

| MATING Pins | $\emptyset 0.70$ to $0.90 \mathrm{~mm}, ~$ |
| :--- | :--- |

(polished steel gauge $\varnothing 0.76 \mathrm{~mm}$ )
mechanicallife Min. 500 cycles
Rated Current
contact resistanctan
3 A
Contact resistance Max. 10 m
For corresponding pin connectors, see pages 109-119
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating COOE SLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin }\end{array}$

801-PP-NNN-10-003101
Straight socket connector, height 8 mm , solder tail, single row
avalLablity from $\quad 2$ to 36 contacts
(standard number of contacts: 36 )


803-PP-NNN-10-00310
Straight socket connector, height 7.9 mm , solder tail, double row
avallability from 4 to 100 contacts
der of contacts: 100


805-PP-NNN-10-003101
Straight socket connector, height 7.9 mm , solder tail, triple row avalablitiverom 9 to 96 contacts (standard number of contacts: 96


## SOCKET CONNECTORS 2.54 mm

## preci-dip

## MATING PIN $\varnothing 0.76 \mathrm{~mm} /$ SINGLE ROW/DOUBLE ROW /TRIPLE ROW

WWW.PREEIIIP.COM TEL+41 $324210400 \quad$ SALESePRRECIIIP.COM
MATING PIN $\varnothing$
SOLDER TAIL

TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
insulator Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { flammabitity } & \text { UL94V-O } \\ \text { sleeve } & \text { Brass CuZn36Pb3 (C36000) }\end{array}$
Contact CLIP (6 FINGER) Beryllium copper (C17200)

| Mating pins | $\quad 0.70$ to o $0.90 \mathrm{~mm}, ~$ |
| :--- | :--- |

(polished steel gauge $\varnothing 0.76 \mathrm{~mm}$ ) withdrawal
Mechanicallife Min. 500 cycles
rated current
3 A
Contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 109-119.
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PP PLATING CODE } & \text { SLEEVE } & \text { CLIP } \\ 87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \mu \mathrm{~m} \text { gold }\end{array}$

ther plating on request (see page 178 for plating specs).
g. 803 mer of poles. Replace NNN with the requested number of poles,
g. 803-87-NNN-10-005101 for a double row version with 16 pins
becomes 803-87-016-10-00510



Straight socket connector, height 8.5 mm , solder tail, double row
AVALLABLITY rrom 4 to 100 contacts
(otandard number of contacts: 100)


805-PP-NNN-10-005101
Straight socket connector, height 8.4 mm , solder tail, triple row
AVALLABLITY From 9 to 96 contacts
(standard number of contacts: 96


803-PP-NNN-10-269101
Straight socket connector, height 11 mm , solder tail, double row
avallablity from $\quad 4$ to 100 contacts (standard number of contacts: 100)


WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePrRECIIIP.COM
nnectors, solder tail.
TECHNICAL SPECIFICATIONS (For general specs, sEE Page 43
Black glass filled polyester PCT-GF30-FR
SLEEVE Brass CuZn36Pb3 (C36000)
CONTACT CLIP (6 FINGER) Beryllium copper (C17200)
$\square 0.70$ to $0.90 \mathrm{~mm}, \square 0.635 \mathrm{~mm}$
$\begin{array}{ll}\text { ForCES } & \begin{array}{l}1.2 \mathrm{~N} \text { typ. insertion } \\ \text { (polished steel gauge } \\ 0\end{array} 0.76 \mathrm{~mm} \text { ). withdrawal }\end{array}$
MECHanical LIFE
Min. 500 cycles
rated current
${ }^{3} \mathrm{~A}^{2}$
Contact resistance
Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 109-119.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating COOE SLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & \end{array}$

## 803-PP-NNN-10-249101

Straight socket connector, height 19.7 mm , solder tail, double row aValLABLITr From $\quad 4$ to 40 contacts
(standard number of contacts: 40)

height 37.5 mm , solder tail, single row
Avali ABLITTY From 2 to 32 contacts
(standard number of contacts: 32


803-PP-NNN-10-216101
Straight socket connector, height 37.5 mm , solder tail, double row
avalablitiverom $\quad 4$ to 72 contacts
(standard number of contacts: 72)


## MATTNG PIN $0.76 \mathrm{~mm} / \mathrm{SINGLE}$ ROW / DOUBLE ROW / SOLDER TAIL RIGTT ANGLE

www.PRECIIP.COM TEL+41324270400 SALESePREEIIIP.CoM
Right angle socket connectors, solder tail.
TECHNICAL SPECIFICATIONS (for general specs, see page 43
Insulator Black glass filled polyester PCT-GF30-FR
sleeve Brass CuZn36Pb3 (C36000)
ConTact CLIP (6 Finger) Berylium copper (C17200)

| MATING PINS | $\quad 0.70$ to $0.90 \mathrm{~mm}, ~ \boxtimes 0.635 \mathrm{~mm}$ |
| :--- | :--- |
|  |  |
|  |  |
| OOPCES |  |


mechanical life Min. 500 cycles
rated current
3 A

| contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| :--- | :--- | :--- |
| OIELECTRIC STRENGTH | Min 1 |

For corresponding pin connectors, see pages 109-119.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATINGCODE SLEEVE CLIP
Flash gold
0.75 um gold
ther plating on request (see page 178 for plating specs).
NN number of poles. Replace NNN with the requested number of poles,
.g. 803-87-NNN-20-001101 for a double row version with 16 pins
ecomes 803-87-016-20-00110

801-PP-NNN-20-002101



801-PP-YYY-20-442101
Right angle short soc
equiped 5.08 mm
equipped 5.08 mm
2 to 32 contacts
YYY number of poles:
please consult for ordering code

$\begin{array}{ll}\text { Bulk: } & \begin{array}{l}\text { T\&RPackaging*: } \\ \text { 801-PP-NNN-20-001101 }\end{array} \\ \text { 801-PP-NNN-20-001191 }\end{array}$
Right angle socket connector, solder tail, single row
avalLabluty from 2 to 50 contacts
(standard number of contacts: 50)
*Please consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.

803-PP-NNN-20-001101
Right angle socket connector, solder tail, double row
Avaluablury reom $\quad 4$ to 100 contacts
avallablity from $\quad 4$ to 100 contacts


SOCKET CONNECTORS 2.54 mm

## mating pin $0.76 \mathrm{~mm} /$ Single Row/soldertall right angle

preci-dip
WWW.PRECIIIP.COM TEL+4132421 0400 SALESePRRECIIIP.com
solder tail.
TECHNICAL SPECIFICATIONS (For general specs, see page 43
Black glass filled polyester PCT-GF30-FR
sleeve Brass CuZn36Pb3 (C36000)
Contact ©LP (6 FiNGER) Beryllium copper (CC17200)
forces
MEChaNical Llize Min. 500 cycles
rated current
Max 10 mo
$\begin{array}{ll}\text { contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { Diekectric strenath } & \text { Min. } 1^{\prime} \text { '000 Vris }\end{array}$
For corresponding pin connectors, see pages 109-119
ORDERING INFORMATION ROHS COMPLIANT PARTS
${ }_{87}^{\text {Pp PLating COOE CLIP }}$
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \mu \mathrm{~m} \text { gold }\end{array}$

801-PP-YYY-20-101101
Right angle socket connector, solder tail, single row, partially
equipped 5.08 mm
avallability rrom 2 to 25 contacts
YYY number of poles:
please consult for ordering code


Other plating on request (see page 178 for plating specs).


TECHNICAL SPECIFICATIONS (For general specs, see Page 43)

| insulator | Black glass filled polyester PCT-GF30-FR |
| :---: | :---: |
| flammablity | UL94V-O |
| sleeve | Brass CuZn36Pb3 (C36000) |
| contact clip (6 finger) | Beryllium copper (C17200) |
| mating pins | Ø 0.70 to $0.90 \mathrm{~mm}, \boxtimes 0.635 \mathrm{~mm}$ |
| forces | 1.2 N typ. insertion (polished steel gauge $\emptyset 0.76 \mathrm{~mm}$ ). withdrawal 0.6 N . |
| mechanical life | Min. 500 cycles |
| rated current | 3 A |
| contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| dielectric strength | Min. ${ }^{\prime} 0000 \mathrm{~V}_{\text {ens }}$ |
|  | Max. 0.1 mm (measured on 25 mm long con |

ORDERING INFORMATION ROHS COMPLIANT PARTS

| PP LLATING CODE | SLeEVE | CLIP |
| :--- | :--- | :--- |
| 87 | Tin |  |
| 83 | Tlash gold |  |
| Tin |  |  |

$\begin{array}{ll}\text { Bulk: } & \text { T \& R R Packaging with pick \& place cap*: } \\ \text { 801-PP-NNN-30-480101 } \\ \text { 801-PP-NNN } 30-480191\end{array}$
SMD socket connector, single row, perpendicular mount with self-levellin
floating contacts
avallabluty from
12 contact
(standard number of contacts: 12
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for avail ability size of tape, size of
reel, number of components per reel and packing units.
Bulk:
803-p
$T \& R$ Packaging with pick \& place cap*
3-PP-NNN-30-480101 803-PP-NNN-30-480191
SMD Socket connector, double row, perpendicular mount with self-levelling
floating contacts
avalıaвاLTт from
4 to 64 contacts
(standard number of contacts: 64
For connectors having more than 9 contacts per row,
the coolanarity issue is the coplanarity issue is to be addressed specificall reel, number of components per reel and packing units.

Bulk:
T \& R Packaging with pick \& place cap*:
801-PP-NNN-30-0021
single row, perpendicular mount with gull-wing
terminations

> 3 to 64 contacts (standard number of contacts: 64 ) For connectors having more than 9 contacts, the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
Bulk:
803-PP-NNN-30-002101 $\begin{aligned} & \text { T \& R Packaging with pick \& place cap*: } \\ & \text { 803-PP-NNN-30-002191 }\end{aligned}$
SMD socket connector, double row, perpendicular mount with gull-wing terminations

4 to 72 contacts
(standard number of contacts: 40 and 72 ) For connectors having more than 9 contacts per row,
the coplanarity issue is to be addressed specifically
Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.

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TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
insulator Black glass filled polyester PCT-GF30-FR
sLeeve Brass CuZn36Pb3 (C36000)
CoNTACT CLIP (6 FINGER) Beryllium copper (C17200)
Mating Pins
Forces $\quad \emptyset 0.70$ to $0.90 \mathrm{~mm}, \boxtimes 0.635 \mathrm{~m}$
(polished steel gauge $\varnothing 0.76 \mathrm{~mm}$ ) withdrawa
MECHanical LIFE
Min. 500 cycles
RAtec Curkent
Max. $10 \mathrm{~m} \Omega$
copLanarit Min. $1^{1} 000 \mathrm{~V}_{\mathrm{Vms}}$

For corresponding pin connectors, see pages $109-119$,
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating Code sleeve che
$\begin{array}{lll}87 & \text { Tin } & \text { CLIP } \\ 83 & \text { Finsh gold } \\ & \text { Tin } & 0.75 \mu \mathrm{~m} \text { gold }\end{array}$
Bulk: $\quad$ \& R Packaging with pick \& place cap*:
B01-PP-NNN-30-001101
SMD socket connector, single row, perpendicular mount with gull-wing terminations
avaluabluty from
3 to 50 contacts
(standard number of contacts: 50)
For connectors having more than 9 contacts,
the cooplanarity issue is to be addressed
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
Bulk: $\quad$ T\&R Packaging with pick \& place cap*: SMD socket connector, double row, perpendicular mount with gull-wing terminations
avallablity from $\quad 4$ to 100 contacts
(standard number of contacts: 100 For connectors having more than 9 contacts per row, the coplanarity issue is to be addressed specifical.
$\times$ Please consult www.precidip.com for availability size
reel, number of components per reel and packing units.


SOCKET CONNECTORS 2.54 mm
preci-dip
www.pRECIIP.COM TELTA1 324210400 SALESePPRECIIIP.com
……...........
TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
insulator Black glass filled polyester PCT-GF30-FR

## sLeve

 UL.94V-0Brass CuZn36Pb3 (C36000)
mating pins Beryllium copper (C17200)

MECHANICALLIFE Min. 500 cycles
Rated current
CONTACT RESISTANCE Max. $10 \mathrm{~m} \Omega$

\section*{| coplanarity |
| :--- |
| SMOTERMIINATIONs |} Min. $1^{10000}$ Vrms

Max. 0.1 mm (measured on 25 mm
For corresponding
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating CODE SLEEVE
$\begin{array}{lll}78,87 & \text { Tin } & \text { Gold flash } \\ 38,83 & \text { Tin } & \text { Gold } 0.75 \text { ume }\end{array}$
....2-146 series / 88, 83 for $801 . .40-00 \times 101$ series
$\begin{array}{ll}\text { Bulk: } & \begin{array}{l}\text { T\& R Packaging with pick \& place cap*: }\end{array} \\ \text { 8FM-PP-ONNN-02-278 } \\ \text { 8FM-PP-ONNN-02-278191 }\end{array}$
SMD socket connector, parallel mount, low profile minimum PCB space requirement, single row
avaliabluty from 2 to 10 contacts
(standard number of contacts: 10
For connectors having more than 9 contacts,
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
Bulk: T\&R Packaging with pick \& place cap*:
8FM-PP-ONNN-02-146191
SMD socket connector, p
requirement, single ro
avallablity from $\quad 2$ to 10 contact
standard number of contacts: 10
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
Bulk:
T\& R Packaging*:
8FM-PP-ONNN

Tl mount short contact single ro Avaliabluty from 2 to 64 contacts
(standard number of contacts: 64)
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
Bulk:
T\&RPackaging*:
801-PP-NNN-40-001101 8FM-PP-ON NN-02-14619 AvalLablity from 2 to 50 contacts
(standard number of contacts: 50)
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.

WWW.PRECIIIP.COM TEL +41 $324210400 \quad$ SALESePPRECIIIP.CoM
for solderless mount in PCB plated through holes.

TECHNICAL SPECIFICATIONS (For GENERAL LsPECS, SEE PAGE 4 )

| миивиту | Black glass filled polyes |
| :---: | :---: |
| FLammabluty | UL.94V-O |
| sleeve | Bronze CuSn4Pb4Zn4 (C54400) |
| contact clip (6 Finger) | Beryllium copper (C17200) |
| mating pins | $\varnothing 0.70$ to $0.90 \mathrm{~mm}, \boxtimes 0.635 \mathrm{~mm}$ |
| forces | 1.2 N typ. insertion $\quad 0.6 \mathrm{~N}$ typ. withdrawal (polished steel gauge $\varnothing 0.76 \mathrm{~mm}$ ) |
| mechanical life | Min. 500 cycles |
| rated current | 3 A |
| contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| dielectric strength | Min. $1^{1} 000 \mathrm{~V}_{\text {zms }}$ |
| рсв ноеЕ ${ }^{\text {¢ }}$ | $1 \mathrm{~mm}+0.09 /-0.06 \mathrm{~mm}$ finished ( $1.15 \pm 0.025 \mathrm{~mm}$ drill) |

ORDERING INFORMATION ROHS COMPLIANT PARTS
ORDERING INFORMATION ROHS COMPLIANT PARTS
pp plating code sleve
$\begin{array}{ll}87 & \begin{array}{l}\text { Tin } \\ 83\end{array} \\ \text { Tin } & \text { Flash gold } \\ 0.75 \text { m gold }\end{array}$

## 801-PP-NNN-65-001101

Press-fit socket connector, single row, compliant pin for PCB thicknes 1.5 to 2.5 mm

2 to 50 contacts
(standard number of contacts: 50)
 NN plating on request (see page 178 for plating specs). g. number of poles. Replace NNN with the requested number of poles, 801-87-008-65-001101


803-PP-NNN-65-001101
Press-fit socket connector, double row, compliant pin for PCB thickness
1.5 to 2.5 mm

4 to 100 contacts
(standard number of contacts: 100)


801-PP-NNN-66-001101
Press-fit socket connector, single row, compliant pin for PCB thickness
2.1 to 3.2 mm
avalLablity from

2 to 50 contacts
(standard number of contacts: 50 )


803-PP-NNN-66-001101
Press-fit socket connector, double row, compliant pin for PCB thickness Avallablity from

4 to 00 contacts
(standard number of contacts: 100)


SOCKET CONNECTORS 2.54 mm

WWW.PREIIIP.COM TEL+41 324210400 SALESePREGIIIP.COM

TECHNICAL SPECIFICATIONS (For general specs, see page 43)
Insulator Black glass filled polyester PCT-GF30-FR
SLeeve Brass CuZn36Pb3 (C36000)
CONTACT CLIP (6 FINGER) Beryllium copper (C17200)
matnopiss
(polished steel gauge $\varnothing 0.76 \mathrm{~mm}$ )
mechanicallife Min. 500 cycles
3A
Contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see pages 109-119
ORDERING INFORMATION ROHS COMPLIANT PARTS
PPPLATING COOE SLEEVE CLIP
ash gold
her plating on request see page 178 for plating specs).
g. number of poles. Replace NNN with the requested number of poles,
e.g. 803-87-NNN-53-00110 for a double row version with 16 pins
ecomes 803-87-016-53-0011

ocket connector, height 7 mm , 3 -evel, double row
AVALLABLITY From 4 to 100 contacts
(tandard huer of contacts: 10


SOCKET CONNECTORS 2.54 mm

## MATING PIN 1 mm / SINGLE ROW / DOUBLE ROW / SOLDERTAIL

preci-dip
WWW.PRECIIP.COM TEL+4132421 0400 SALESePPRECIIIP.com

TECHNICAL SPECIFICATIONS (For general specs, SEe Page 43 )
Black glass filled polyester PCT-GF30-FR sleeve Brass CuZn36Pb3 (C36000)
$\begin{array}{ll}\text { ConTact CLIP } 6 \text { F FINGER) } & \text { Beryllium copper (C17200) } \\ \text { MATING PIN } & 0.95 \text { to } 1.08 \mathrm{~mm}\end{array}$

Mechanical LIFE Min. 100 cycles
Rated current
${ }_{3 \text { A }}^{\text {Min. }} 100$ cycles
contact resistance Max. $10 \mathrm{~m} \Omega$
For corresponding pin connectors, see page 113
ORDERING INFORMATION ROHS COMPLIANT PARTS
PPPLATING COOE SLEEVE CLP
ash gold
$83-$ Tin 0.75 mm gold

801-PP-NNN-10-004101
Straight socket connector, height 7 mm , solder tail, single row
avalability from $\quad 2$ to 50 contacts
(standard number of contacts: 50 )
ther plating on request (see page 178 for plating specs).
NN number of poles. Replace NNN with the requested number of poles,
.g. 803-87-NNN-10-004101 for a double row version with 16 pins

www.PRECIIP.COM TEL+41324210400 SALESePREEIIIP.CoM
Pin connectors, solder tail.
TECHNICAL SPECIFICATIONS (For general specs, see page 43)
Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { contact } & \text { Brass CuZn36Pb3 (C36000) }\end{array}$
$\begin{array}{ll}\text { CONNECTING PIN } & 0.47 \mathrm{~mm} \text { and } 0.49 \mathrm{~mm} \\ \text { MECHANICALLIFE } & \text { Min } 500 \text { cycles }\end{array}$
Mechanical llfe Min. 500 cycles
Rated current
3 A
Min. 1 1'000 Vems
For corresponding socket connectors, see pages 69-84
ORDERING INFORMATION ROHS COMPLIANT PARTS

| pp plating cook | termination | nnecting pin |
| :---: | :---: | :---: |
| 10 | $0.25 \mu \mathrm{~m}$ gold | $0.25 \mu \mathrm{~m}$ gold |
| 80 | Tin | Tin |

$0.75 \mu \mathrm{~m}$ gold
*only for 350/450...00-006101 series


N numbering on request (see page 178 for plating specs). g. 450 n-10 of poles. Replace $\mathbf{N N}$ with the requested number of poles, pecomes 450-10-216-00-00610

350-PP-1NN-00-019101
 AVALLABLITY from 2 to 64 contacts (standard number of contacts: 64)


Straight pin connector ultralow profile, height 2.2 mm , solder tail, single row
avalLABLITY From 2 to 64 contacts
(standard number of contacts: 64


350-PP-1NN-00-006101
Straight pin connector low profile, height 3.5 mm , solder tail, single row
AvalLABLITY From 2 to 64 contacts
(standard number of contacts: 64)


450-PP-2NN-00-006101
Straight pin connector low profile, height 3.5 mm , solder tail, double row
AValLABLLTY FRoM 4 to 72 contacts
(standard number of contacts: 72)


PIN CONNECTORS 2.54 mm

preci-dip
www.PRECIIIP.COM TEL+41 324210400 sALEsePRECIIIP.CoM
Pincorectors solder tail.
TECHNICAL SPECIFICATIONS (For general specs, seg page 43
insulator Black glass filled polyester PCT-GF30-FR
contact Brass CuZn36Pb3 (с36000)
CONNECTING PINQ $\quad 0.47 \mathrm{~mm}$
rated current 3 A
dielectric strength Min. 1 '000 Vmems
For corresponding socket connectors, see pages 69-84 ORDERING INFORMATION ROHS COMPLIANT PARTS PP PLATING CODE
10 $\quad \begin{aligned} & \text { TERMNATION } \\ & 0.25 \mu \mathrm{~m} \text { gold }\end{aligned} \quad \begin{aligned} & \text { ConNecting pin } \\ & 0.025 \mu \mathrm{mgold}\end{aligned}$


## 350-PP-1NN-01-666101

Straight pin connector, height 3.5 mm , with clinched (right/left) solder tails,
single row single row

3 to 64 contacts
(standard number of contacts: 64)


350-PP-1YY-01-71410
Straight pin connector, height 3.5 mm , solder tail, single row, partially
equipped 5.08 mm
Avallablutry from $\quad 2$ to 32 contacts
YY number of poles:
please consult for ordering code


350-PP-1NN-00-001101
Straight pin connector, height 4 mm , solder tail, single row
AVALLABLITY From 2 to 64 contacts
(standard number of contacts: 64)


450-PP-2NN-00-001101
Straight pin connector, height 4 mm , solder tail, double row
avallablitiv from 4 to 72 contacts
(standard number of contacts: 72


Due to technical progress, all information provided is subject to change without prior notice.

PIN CONNECTORS 2.54 mm
ConNecting pin $0.47 \mathrm{~mm} /$ SINGLE Row / Double row

WWW.PRECIIP.COM TEL+41324210400 SALESePREEIIIP.CoM
Sinconectors solder tail.
TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
Black glass filled polyester PCT-GF30-FR
contact $\quad$ Brass CuZn36Pb3 (C36000)
CONNECTING PIND $\quad 0.47 \mathrm{~mm}$
Rated current
Min. 500 cycles
Rated current
Min. $1^{10000}$ Vems
For corresponding socket connectors, see pages 69-84. ORDERING INFORMATION ROHS COMPLIANT PARTS PP PLATING COOE
10 $\quad \begin{aligned} & \text { TERMNATION } \\ & 0.25 \text { нm gold }\end{aligned}$ $\begin{array}{lll}10 & 0.25 \mu \mathrm{~m} \text { gold } & 0.25 \mu \mathrm{~m} \text { gold } \\ 80 & \end{array}$


N number of poles, Replace NN 18 for plating specs). g. 450-10-2NN-00-013101 $\mathbf{N N}$ with the requested number of pole g. 450-10-2NN-00-013101 for

350-PP-1YY-01-60910
Straight pin connector, low profile, height 4 mm , solder tail, single row, partially equipped 5.08 mm
avallablity from $\quad 2$ to 32 contacts
please consult for ordering code


350-PP-1 NN-00-013101
Straight pin connector, height 4.1 mm , solder tail, single row
AvalLABLITr From 2 to 64 contacts
(standard number of contacts: 64


450-PP-2NN-00-013101
Straight pin connector, height 4.1 mm , solder tail, double row avaliablity from $\quad 4$ to 72 contacts
(standard number of contacts: 72)

PIN CONNECTORS 2.54 mm
preci-dip
CONNECTING PIN $\varnothing 0.47 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW
WWW.PRECIIIP.COM TEL +41324210400 SALESePREEIIIP.CoM
D.

TECHNICAL SPECIFICATIONS (For general specs, see page 43)
Black glass filled polyester PCT-GF30-FR

CONNECTING PINQ
MECHANICALLIEE $\quad 0.47 \mathrm{~mm}$
Mechanical life Min. 500 cycle
${ }^{\text {Rated CURRENT }}$
Min. 1 '000 Vems
For corresponding socket connectors, see pages 69-80, ORDERING INFORMATION ROHS COMPLIANT PARTS PP PLating COOE
10 $\begin{aligned} & \text { TeRMNATION } \\ & 0.25 \text { нm gold }\end{aligned}$ $\begin{array}{lll}10 & 0.25 \mu \mathrm{~m} \text { gold } & 0.25 \mu \mathrm{~m} \text { gold } \\ 80 & \text { Tin } & \text { Tin }\end{array}$


351-PP-1NN-00-XXX101
Straight interconnect pin connector, solder tail, single row
avaluablity from
2 to 64 contacts avalLABLITr from 2 to 64 contacts standard number of contacts: 64)


Straile-2NN-00-XXX101
Straight interconnect pin connector, solder tail, double row
AVALLABLITY From 4 to 72 contacts
(standard number of contacts: 72)


AVAILABLE CONTACT LENGTHS

| CONTACT LENGTH L1 (mm) | L2 (mm) | xxx 000 E |
| :---: | :---: | :---: |
| 6.2 | 4.7 | 003 |
| 8.4 | 3.55 | 004 |
| 15.3 | 3.55 | 005 |
| 21.2 | 3.55 | 016 |
| 27.4 | 3.55 | 017 |

Other lengths on request

PIN CONNECTORS 2.54 mm
preci-dip
CoNNECTING PIN $\varnothing 0.47 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW
SOLDERTALL/RIGHTANGLE
WWW.PRECIIIP.COM TEL +41324210400 SALESePREEIIIP.CoM

TECHNICAL SPECIFICATIONS (For general specs, sea page 43
Black glass filled polyester PCT-GF30-FR
contact Brass CuZn36Pb3 (C36000)
CONNECTING PIND $\quad 0.47 \mathrm{~mm}$
${ }_{3}$ Min. 500 cycles
Rated current
Min. ${ }^{3} 1000$ Vems
For corresponding socket connectors, see pages 69-84. ORDERING INFORMATION ROHS COMPLIANT PARTS

| -ating code | minat | PIN |
| :---: | :---: | :---: |


| 10 | $0.25 \mu \mathrm{~m}$ gold |
| :--- | :--- | :--- |
| 80 | $0.25 \mu \mathrm{~m}$ gold |

$\begin{array}{lll}80 & \text { Tin } & \text { Tin } \\ \text { V3 } & \text { Tin } & 0.75 \text { um gold }\end{array}$


## 399-PP-1NN-10-009101

Right angle pin connector, solder tall, single row
avalLablity from 2 to 64 contacts
(standard number of contacts: 64


Right angle pin connector, solder tail, double row
avaliability from $\quad 4$ to 72 contacts
(standara numberof contacts: 72


PIN CONNECTORS 2.54 mm

WWW.PRECIIPP.COM TEL +41324210400 SALESePPRECIIIP.COM
Pin connectors, SMD
TECHNICAL SPECIFICATIONS (for General specs, see page 43)
Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { contact } & \text { UL.94V-0 } \\ \text { Brass CuZn36Pb ( (сз6000) }\end{array}$
Connecting ping $\quad 0.47 \mathrm{~mm}$
MECHANICALLIIE Min. 500 cycles
Rated durrent
coplanartity
For corresponding socket connectors, see pages $69-8$
ORDERING INFORMATION ROHS COMPLIANT PARTS

| PP PLating CODE | Termination | CONNECtING PiN |
| :--- | :--- | :--- |
| 10 | $0.25 \mu \mathrm{~m}$ gold | $0.25 \mu \mathrm{~m}$ gold |
| 80 | Tin | Tin |
| V3 | Tin | $0.75 \mu \mathrm{~m}$ gold |



Bulk: T\&R Packaging with pick \& place cap*:
SMD pin connector, low profile, single row, perpendicular mount w
self-levelling floating contacts
AvalLABLITY From 2 to 64 contacts
(standard number of contacts: 64
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed
*Please consult www.precidip.com for avail ability size of tape, size of
reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Bulk: } & \text { T \& R P Packaging with pick \& place cap*: } \\ \text { 450-PP-2NN-01-899101 }\end{array}$
450-PP-2NN-01-899101 450-PP-2NN-01-899191
SMD pin connector, low profile, double row, perpendicular mount with
AVALLABLITY from $\quad 4$ to 72 contacts
(standard number of contacts: 72)
For connectors having more than 9 contacts per row,
the coplanarity issue is to be addressed specifically the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size
reel, number of components per reel and packing units.
Bulk:
T \& R Packaging with pick \& place cap*:
350-PP-1NN-00-106101 $350-\mathrm{PP}-1 \mathrm{NN}-00-106191$
SMD pin connector, single row, perpendicular mount with gull-wing
terminations
(standard number of contacts: 64)
(standara number of contacts. 6 .
For connectors having more than 9 contacts,
the coplanarity issue is
.precidip.com for availability size of tape, size of
*Please consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.
$\begin{array}{lll}\text { Bulk: } & \text { T\& R Packaging with pick \& place cap*: } \\ \text { 450-PP-2NN-00-106101 } & \text { 450-PP-2NN--00-106191 }\end{array}$ SMD pin connector, double row, perpendicular mount with gull-wing terminations 4 to 72 contacts
(standard number of contacts: 72 For connectors having more than 9 contacts per row
the coplanarity issue is to be addressed specifically *Please consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.
Due to technical progress, all information provided is subject to change without prior notice.


PIN CONNECTORS 2.54 mm
preci-dip
WWW.PRECIIP.COM TEL+4132421 0400 SALESePPRECIIIP.com
Pin connectors, SMD
TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
Black glass filled polyester PCT-GF30-FR
flammability UL.94V-0
connecting ping orass Cuzn36Pb (C3600)
mechanical Life Min. 500 cycle
Rated current
coplanarity
For corresponding socket connectors, see pages 69-8
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATING CODE TERMNATION CONNECTING PIN
$0.25 \mu \mathrm{~m}$ gold $\quad{ }_{\text {Tin }}^{0.25 \mu \mathrm{~m} \text { gold }}$

PONNECTNG PIN 0.47 mm /SINGERER/SUREACE MOUNT

$\begin{array}{ll}\text { Bulk: } & \begin{array}{l}\text { T\&RPackaging*: } \\ \text { 350-PP-1NN-00-206101 }\end{array} \\ \text { 350-PP-1NN-00-206191 }\end{array}$
SMD pin connector single row 350 -PP-1 1
SMD pin connector, single row, paralle
Avaluabiuty from
2 to 64 contacts the coplanarity ysing more than 9 contacts, the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.


PIN CONNECTORS 2.54 mm
CONNECTING PIN $\varnothing 0.47 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW / PRESS-FIT
preci-dip
WWW.PRECIIIP.COM TEL+41 324210400 SALESePRECIIIP.COM

TECHNICAL SPECIFICATIONS (for general specs, see page 4

$\begin{array}{ll}\text { солтаст } & \text { BL94V-0 } \\ \text { Bronze CuSn4Pb4Zn4 (C54400) }\end{array}$
CONNECTING PIND $\quad 0.47 \mathrm{~mm}$
Mechanical Llie Min. 500 cycles
$\begin{array}{ll}\text { Rated current } \\ \text { Dielectric strenath } & \text { Min. } 1 \text { '000 Vams }\end{array}$

For corresponding socket connectors, see pages 69-84.
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating COOE
termination
ConNECTING PII
$0.75 \mu \mathrm{~m}$ gold

## 356-V3-1 NN-00-014101

Press-fit pin connector, single row, compliant pin for PCB thickness 1.5 to 2.5 mm
avallabluty From 2 to 64 contacts
(standard number of contacts: 64)

0.71


456-V3-2NN-00-014101
Press-fit pin connector, double row, compliant pin for PCB thickness
1.5 to 2.5 mm

4 to 72 contacts
(standard number of contacts: 72)


Pin connectors, solder tail.
TECHNICAL SPECIFICATIONS (for general specs, see page 43)
insulator Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { contact } & \text { UL.94V-O } \\ \text { conlabs } & \text { Brass CuZn36Pb (C36000) }\end{array}$
Connecting ping $\quad 0.76 \mathrm{~mm}$
mechanical life Min. 500 cycles

| RAtED CURRENT |
| :--- |
| DIELLCCTRIC STREN |

Min. ${ }^{3} 1000$ Vems
For corresponding socket connectors, see pages $85-99$ ORDERING INFORMATION ROHS COMPLIANT PARTS



Other plating on request (see page 178 for plating specs). NNN number of poles. Replace NNN with the requested number of poles, .8. 800-10-NNN-10-001101 for a single row version with 8 pins becomes 00-10-008-10-00110

800-PP-NNN-10-002101
Straight pin connector, height 3.2 mm , short pin, solder tail, single row
$\begin{aligned} & \text { avalLABLITr From } \\ & 2 \text { to } 64 \text { contacts }\end{aligned}$
(standard number of contacts: 64)


802-PP-NNN-10-002101
Straight pin connector, height 3.2 mm , short pin, solder tail, double row
Avalıaßlutr from $\quad 4$ to 72 contacts
(standard number of contacts: 72)


800-PP-NNN-10-001101
Straight pin connector, height 3.2 mm , long pin, solder tail, single row avalıablity from 2 to 64 contacts
(standard number of contacts: 64)
Option: partially equipped 5.08 mm connector
PN 800-PP-YYY-10-101101 available on request


802-PP-NNN-10-001101
Straight pin connector, height 3.2 mm , long pin, solder tail, double row
AVALLABLITTY From $\quad 4$ to 72 contacts
(standard number of contacts: 72)


Pin connectors, solder tail.
TECHNICAL SPECIFICATIONS (For general specs, SEE Page 43)
insulator Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { contact } & \text { UL.94V-0 } \\ \text { Brass CuZn36Pb } \\ \text { (С36000) }\end{array}$
CONNECTING PIN
MECHANCOLILE $\quad 0.76 \mathrm{~mm}$
Mechanical life Min. 500 cycles
Rated current
${ }^{3 \text { A }}$ Min. 1000 Vems
For corresponding socket connectors, see pages 85-99
ORDERING INFORMATION ROHS COMPLIANT PARTS

|  | PP Plating Code |  |  |
| :---: | :---: | :---: | :---: |
|  | 10 | $0.25 \mu \mathrm{~m}$ gold | 0.25 umgold |


| 10 | $0.25 \mu \mathrm{~m}$ gold | $0.25 \mu \mathrm{~m}$ gold |
| :--- | :--- | :--- |
| 80 | Tin | Tin |
| V3* | Tin | $0.75 \mu \mathrm{~m}$ gold |

conly for 802/804...10-193101 series


350-PP-1NN-00-018101
Straight pin connector, height 4.75 mm , solder tail, single row
avalLablutry from 2 to 64 contacts
(standard number of contacts: 64)


Straisp-2NN-00-01810
Straight pin connector, height 4.75 mm , solder tail, double row
AValLABLITY From
AValLablity from 4 to 72 contacts
(standard number of contacts: 72)


802-V3-NNN-10-193101
Straight pin connector, height 21.2 mm , solder tail, double row
avallasility from 4 to 64 contacts
(standard number of contacts: 64)


804-V3-NNN-10-193101
Straight pin connector, height 21.2 mm , solder tail, triple row
AVAILABLITY From $\quad 9$ to 96 contacts
standard


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TECHNICAL SPECIFICATIONS (For general specs, sea Page 43
Insulator Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { contact } & \text { EL94V-0 } \\ \text { Brass CuZn36Pb3 (с36000) }\end{array}$
CONNECTING PIND
MECHANICALLIEE $\quad 0.76 \mathrm{~mm}$
mechanical llfe Min. 500 cycles
Rated current
Min. 10000 Vems
For corresponding socket connectors, see pages 85-99,
ORDERING INFORMATION ROHS COMPLIANT PARTS

|  | PP PLating CODE | termination |  |
| :---: | :---: | :---: | :---: |
|  |  | Tin | 0.75 mm gold |


laing on request (see page 178 forplating specs).
g. 800 e.g. $800-\mathrm{V} 3-\mathrm{NNN}-12-0021$
$800-\mathrm{V} 3-008-12-002101$.

800-V3-NNN-12-002101
Straight shrouded pin connector, solder tail, single row Avalıablitr from 2 to 32 contacts (standard number of contacts: 32)


Straight
Straight shrouded pin connector, solder tail, double row
avaluablity from
4 to 64 contacts
4 to 64 contacts
(standard number of contacts: 64 )


804-V3-NNN-12-002101
Straight shrouded pin connector, solder tail, triple row
AVALLABLITY FRoM $\quad \begin{aligned} & 9 \text { to } 96 \text { contacts } \\ & \text { (standard number of contacts: } 96 \text { ) }\end{aligned}$


800-V3-YYY-12-422101
Straight shrouded pin connector, solder tail, single row, partially
equipped 5.08 mm
AVALLABLLITY FRom
2 to 16 contacts
please consult for ordering code



PIN CONNECTORS 2.54 mm
preci-dip
CONNECTING PIN $\varnothing 0.76 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW
WWW.PRECIIIP.COM TEL +41324210400 SALESePREEIIIP.CoM
Right angle pin connectors, solder tail.
TECHNICAL SPECIFICATIONS (for general specs, see page 4)
Black glass filled polyester PCT-GF30-FR
contact Brass CuZn36Pb3 (C36000)
CONNECTING PINQ $\quad 0.76 \mathrm{~mm}$
MEChanical life Min. 500 cycle
Rated current
Min. 1 '000 Vems
For corresponding socket connectors, see pages 85-99
ORDERING INFORMATION ROHS COMPLIANT PARTS

| pp plating code | termination | connecting pin |
| :---: | :---: | :---: |
| 10 | $0.25 \mu \mathrm{mgold}$ | 0.25 mmgold |
| 80 | Tin | Tin |



800-PP-NNN-20-001101
Right angle pin connector, solder tail, single row
avaluabluty from
2 to 64 contacts
avalLabluty from 2 to 64 contacts
teadard number of contacts: 64


80-PP-NN-20-0
Right angle pin connector, solder tail, double row
avaluablity from
avalability from 4 to 72 contacts
(standard number of contacts: 72


800-PP-YYY-20-101101
Right angle pin connector, solder tail, single row, partially
equipped 5.08 mm
avalıabluty rrom 2 to 32 contacts
YYY number of poles:
please consult for ordering code


PIN CONNECTORS 2.54 mm

preci-dip
www.pRECIIIP.com TEL +41 $324210400 \quad$ SALLESePREEIIIP.com
Right angle pin connectors, solder tail.
TECHNICAL SPECIFICATIONS (for GENeral specs, see Page an
Black glass filled polyester PCT-GF30-F
соNtact Brass CuZn36Pb3 (C36000)
$\begin{array}{ll}\text { CONNECTING PIND } & 0.76 \mathrm{~mm} / 1 \mathrm{~mm} \\ \text { MECHANICALLIEE }\end{array}$
Min. 500 cycle
Rated current
3 Min. 1 '000 Vems
For corresponding socket connectors, see pages 85-100 ORDERING INFORMATION ROHS COMPLIANT PARTS

| ting | termination | connecting pin |
| :---: | :---: | :---: |
| 10* | $0.25 \mu \mathrm{mgold}$ | 0.25 umgold |
| 80* | Tin | Tin |
| v3 | Tin | 0.75 m m god |

*only for $800 . . .-20-004101$ series


$$
\begin{aligned}
& \text { 800-V3-NNN-22-002101 } \\
& \begin{array}{l}
\text { Right angle shrouded pin connector, solder tail, single row } \\
\text { AVaILABLITr From } \\
2 \text { to } 32 \text { contacts }
\end{array} \\
& \text { AValLABLITY From } \quad 2 \text { to } 32 \text { contacts } \\
& \text { (standard number of contacts: 32) } \\
& \text { Right ansternent } \\
& \begin{array}{l}
\text { Right angle shrouded pin connector, solder tail, double row } \\
\text { avaluebiury from } \\
4 \text { to } 64 \text { contacts }
\end{array} \\
& \text { (standard number of contacts: 64) }
\end{aligned}
$$



804-V3-NNN-22-002101
Right angle shrouded pin connector, solder tail, triple row
Raghtanitry from $\quad 9$ to 96 contacts
aver
(standard number of contacts: 96)


800-PP-NNN-20-004101
Right angle pin connector $\varnothing 1 \mathrm{~mm}$, solder tail, single row
AVALLABLITY From $\quad 2$ to 64 contacts
-standard number of contacts: 64


WWW.PRECIIPP.COM TEL +41324210400 SALESePrRECIIIP.COM
Pin connectors, SMD
TECHNICAL SPECIFICATIONS (For general specs, see page 43)
Black glass filled polyester PCT-GF30-FR

$\begin{array}{ll}\text { CoNNECTING PIN } & 0.76 \mathrm{~mm} \\ \text { MECHANCGLILEE } & \text { Min } 500\end{array}$
Mechanical Llie Min. 500 cycles
RATED CURRENT
coplanarity nath Min. 1 '000 Vams
For corresponding socket connectors, see pages $85-9$
ORDERING INFORMATION ROHS COMPLIANT PARTS

| dating cooe | termination | connecting pin |
| :---: | :---: | :---: |
| 10 | 0.25 m m gold | 0.25 um gold |
| 80 | Tin | Tin |
| V3* | Tin | 0.75 um gold |



Bulk: $\quad$ T \& R Packaging with pick \& place cap*:
800-PP-NNN-30-480101
SMD pin connector, low profile, single row, perpendicular mount with
self-levelling floating contacts
avaliablity from 2 to 64 contacts
(standard number of contacts: 64
For connectors having more than 9 contacts,
the coplan
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for avail ability size of tape, size of
reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Bulk: } & \text { T\& R Packaging with pick \& place cap*: } \\ \text { 802-PP-NNN-30-480101 } \\ \text { 802-PP-NNN-30- } 480191 \\ \text { SMD pin connector, low profile, double row, perpendicular mount with }\end{array}$
self-levelling floating contacts
AvalLABLITY From $\quad 4$ to 64 contacts
(standard number of contacts: 64
For connectors having more than 9 contacts per row,
the coplanarity issue is to be addressed specificolly
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availabitity size
Bulk: $\quad$ T \& R Packaging with pick \& place cap*
$800-$ PP-NNN-30-001101 800 -PP-NNN-30
SMD pin connector, single row, perpendicular mount with gull-wing
terminations
3 to 64 contacts
(standard number of contacts: 64)
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.

Bulk:
T \& R Packaging with pick \& place cap*:
802-PP-NNN-30-001191 802-PP-NNN-30-001101 802-PP-NNN-30-001191 SMD pin connector, double row, perpendicular mount with gull-wing terminations

4 to 72 contacts
(standard number of contacts: 72 )
For connectors having more than 9 contacts per row the coplanarity issue is to be addressed specifically *Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
Due to technical progress, all information provided is subject to change without prior notice.


## $\mathrm{CO}^{\mathrm{N} \times 2.54}$ <br> $-2.54-$



PIN CONNECTORS 2.54 mm
CONNECTING PRN $\otimes 0.76 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW
SURFACE MOUNT

WWW.PRECIIP.COM TEL+41324210400 SALESQPRECIIIP.CoM
Pin connectors, SMD
TECHNICAL SPECIFICATIONS (For general specs, see page 43
insulator Black glass filled polyester PCT-GF30-FR
contact $\quad$ Brass CuZn36pb3 (C36000)
CONNECTING PINQ $\quad 0.76 \mathrm{~mm}$
mechanical life Min. 500 cycles
RATED CURRENT
coplanaritre minth Min. 1 '000 Vems
For corresponding socket connectors, see pages $85-9$
ORDERING INFORMATION ROHS COMPLIANT PARTS
pp Plating Cool termination connecting pin



NNN number of poles. Replace NNN with the requested number of poles, eg. 800 - 1 - N -32-0101

Bulk: T\&R Packaging with pick \& place cap*: SMD shrouded pin connector, single row, perpendicular mount
with gull-wing terminations
AVALLABLITY FRoM 3 to 32 contact
(standard number of contacts: 32 )
For connectors having more than 9 contacts,
*Please consult www.precidip.com for availability size of tape, size of

reel, number of components per reel and packing units,
Bulk: $\quad T \& R$ Packaging with pick \& place cap* SMD shrouded pin connector, double row, perpendicular mount SWith gull-wing terminations
AValLablutr from 4 to 64 contacts
(standard number of contacts: 64)
For connectors having more than 9 contacts per row,
the coplanarity issue is to be addressed specificall
the coplanarity issue is to be addressed specifically

*Please consult www.precidip.com for availability size

PIN CONNECTORS 2.54 mm
preci-dip
WWW.PRECIIP.COM TEL+4132421 0400 SALESePRRECIIIP.CoM
Pin connectors, SMD
TECHNICAL SPECIFICATIONS (For general specs, seg page 43)
insulator Black glass filled polyester PCT-GF30-FR
COntact $\quad$ Brass CuZn36Pb3 (C36000)
$\begin{array}{ll}\text { CONNECTING PIN } \\ \text { MECHANICALILIEE } & 0.76 \mathrm{~mm} \\ \text { min }\end{array}$
mechanical Llife Min. 500 cycles
Rated current
coplanaritrenth Min. $1^{1} 000$ Vems
Max. 0.1 mm (measured on 25 mm long connectors) For corresponding socket connectors, see pages 85-99. ORDERING INFORMATION ROHS COMPLIANT PARTS

| PP PLATING COOE | TERMINATION | CONNECTIN PIN |
| :--- | :--- | :--- |
| 111 | $0.25 \mu$ g gold | $0.25 \mu \mathrm{~m}$ gold |
| $10^{*}$ | $0.25 \mu \mathrm{mg}$ gold | $0.25 \mu \mathrm{~m}$ gold |

80* $\quad \operatorname{Tin}^{0.25 \mathrm{Hm}}$

Bulk: T\&R Packaging with pick \& place cap*:
SMD pin connector single row, parallel mount low profile minimum
PCB space requiremen
AValLABLITY from $\quad 2$ to 10 contacts
(standard number of contacts: 10)
For connectors having more than 9 contacts,
*Please consult www.precidip.com for availability size of tape, size of
reel, number of components per reel and packing units.
$\begin{array}{ll}\text { Bulk: } & \begin{array}{l}\text { T\&RPackaging* } \\ \text { 800-PP-NNN-40-001101 } \\ \text { 800-PP-NNN }\end{array}\end{array}$
800-PP-NNN-40-001101 800-PP-NNN-40-001191
SMD pin connector, single row, parallel mou
$\begin{array}{ll}\text { avaliablity from } & 2 \text { to } 64 \text { contacts }\end{array}$
(standard number of contacts: 64)
For connectors having more than 9 contacts,
the coplanarity issue is to be addressed specifically
*Please consult www.precidip.com for availability size of tape, size of
reel number of components per reel and packing units.


PIN CONNECTORS 2.54 mm
CONNECTING PIN $\varnothing 0.76$ mm / SINGLE ROW / DOUBLE ROW / PRESS-FIT
WWW.PRECIIIP.COM TEL +41 324210400 SALESe@PREIIIP.com

TECHNICAL SPECIFICATIONS (for general specs, sef Page 4)
Black glass filled polyester PCT-GF30-F
сомтаст BL94V-0 $\quad$ Bronze CuSn4Pb4Zn4 (C54400)
Connecting ping $\quad 0.76 \mathrm{~mm}$
MECHANICALLIIE Min. 500 cycles
Rated current

РСв Ное © $\quad \begin{aligned} & 1 \mathrm{~mm}+0.09 /-0.06 \mathrm{~mm} \text { finished } \\ & (1.15 \pm 0.025 \mathrm{~mm} \text { drill })\end{aligned}$
,
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating CODE
termination
Tin $\quad 0.25$ um gold
$80 \quad$ Tin Tin


NNN number of poles. Replace NNN with the requested number of poles,
e.g. $800-10$-NNN-65-001101 for a single row version with 8 pins becomes
$800-10-008-65-001101$.

800-PP-NNN-65-001101
Press-fit pin connector, single row, compliant pin for PCB thickness 1.5 to 2.5 mm
avallabluty from
2 to 64 contacts
(standard number of contacts: 64)


802-PP-NNN-65-001101
1.5 to 2.5 m
1.5 to 2.5 mm
avalablity from

4 to 72 contacts
(stalard


800-PP-NNN-66-001101
Press-fit pin connector, single row, compliant pin for PCB thickness
2.1 to 3.2 mm

2 to 64 contacts
(standard number of contacts: 64)


802-PP-NNN-66-001101
Press-fit pin connector, double row, compliant pin for PCB thickness avalLeBlLTy From

$$
4 \text { to } 72 \text { contacts }
$$

(standard number of contacts: 72

Pin connectors, press-fit with compliant pin for solderless mount in PCB plated through holes

TECHNICAL SPECIFICATIONS (for general specs, sef Page 4
Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { contact } & \text { UL.94V-0 } \\ \text { Bronze CuSn4Pb4Znn4 (C54400) }\end{array}$
CONNECTING PIND $\quad 0.76 \mathrm{~mm}$
Mechanical Llfe Min. 500 cycles
Rated current
Min. 1 '000 Vems

For corresponding socket connectors, see pages 85-99
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating COOE

$$
\begin{aligned}
& \text { termination } \\
& \hline \text { Tin }
\end{aligned}
$$

CONNECTING PII


800-V3-NNN-6B-002101
Press-fit shrouded pin connector, single row, compliant pin for PCB thickness 1.5 to 2.5 mm
avalıabluty from
2 to 32 contacts
(standard number of contacts: 32 )


802-V3-NNN-6B-002101
thickness 1.5 to 2.5 mm
AValLABLLTTY From $\quad 4$ to 64 contacts
tandard number of contacts: 64)


804-V3-NNN-6B-002101
Press-fit shrouded pin connector, triple row, compliant pin for PCB
thickness 1.5 to 2.5 mm
AVAILABBLITY From $\quad 9$ to 96 contacts
(standard number of contacts: 96)


PIN CONNECTORS 2.54 mm
SQUARE PIN $\boxtimes 0.635 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW / TRIPLE ROW
SOLDER TAlL
preci-dip
WWW.PRECIIP.COM TEL+4132421 0400 SALESePPRECIIIP.coM

TECHNICAL SPECIFICATIONS (For general specs, see page 43]
Black glass filled polyamide PA-GF30-FR
flammablity UL94V-0
Contact Brass

rated current
Min. 100
dielectric strenath Min. ${ }^{1} \mathrm{OOOO}$ Vmms
For corresponding socket connectors, see pases 85-99 ORDERING INFORMATION ROHS COMPLIANT PARTS

|  | ating Code | termination | CONNECTING PIN |
| :---: | :---: | :---: | :---: |
| 70 | 70 | Flash gold | Flash gold |


| 70 | Flash gold | Flash gold |
| :--- | :--- | :--- |
| 80 | Tin | Tin |
| 18 | Tin | $0.25 \mu \mathrm{~m}$ gold |

Straight square pin header, solder tail, single ro
avaliablitr from 2 to 40 contacts
(standard number of contacts: 40)


NN number of poles. Replace NNN with the requested number of poles,
g. 890-70-NNN-10-00110 for a single row version with 8 pins becomes 890-70-008-10-001101.


Straight square pin header, solder tail, double row
AVallability from $\quad 4$ to 80 contacts
tandard numbor foontacts: 80


894-PP-NNN-10-001101
Straight square pin header, solder tail, triple row
Only contact length code 001 available
AVALLABLIITY From
9 to 120 contacts
(standard number of contacts: 120)

available contact lengths

| AVAILABLE CONTACT LENGTHS |  |  |
| :---: | :---: | :---: |
| connecting pin (mm) | solder fin ( mm ) | xxxcoob |
| 6 | 3.1 | 001 |
| 7 | 3 | 002 |
| 8.5 | 3 | 003 |
| 14.9 | 3 | 004 |

PIN CONNECTORS 2.54 mm
SOUARE PIN $\square 0.63 \mathrm{~mm} /$ SINGLE ROW / DOUBLE ROW /TRIPLE ROW
SOLERTAIL/RIGHT ANGLE
preci-dip
solder tall Right angle
WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePRECIIIP.COM
Right angle square pin headers, solder tail.
TECHNICAL SPECIFICATIONS (For general specs, see page 43)
InsuLator Black glass filled polyamide PA-GF30-FR
$\begin{array}{ll}\text { contact } & \text { UL.94V- } \\ \text { Brass }\end{array}$
$\begin{array}{ll}\text { CONNECTING PIN } & \quad \begin{array}{l}\text { Min. } \\ \text { MECHANICALLIFE }\end{array} \\ \text { Min } 100 \text { cycles }\end{array}$
Mechanical life Min. 100 cycles
RATED CURRENT
3 A
Min. $1^{\prime} 000$ Vems
For corresponding socket connectors, see pages 85-99 ORDERING INFORMATION ROHS COMPLIANT PARTS

| PP PLATING CODE | TERMNATION | CoNNECTING PIN |
| :--- | :--- | :--- |
| 70 | Flash gold | Flash gold |
| 80 | Tin | Tin |
| 18 | Tin | $0.25 \mu \mathrm{~m}$ gold |



890-PP-NNN-20-XXX101
Right angle square pin header, solder tail, single row
avaluablury from
2 to 40 contacts
avalablitry from $\quad 2$ to 40 contacts
(standard number of contacts: 40


89-PP-NNN-2-XXXO
Right angle square pin header, solder tail, double row
AValLABLITY From 4 to 80 contacts
(standard number of contacts: 80


894-PP-NNN-20-001101
Right angle square pin header, solder tail, triple row
Only contact length code 001 available
AVALLABLITY From
9 to 120 contacts
(standard number of contacts: 120)


## available contact lengths

```
CONNECTNG PINA(mm)
```

PCB HEADER STRIPS 2.54 mm

TECHNICAL SPECIFICATIONS (for general specs, se page 4)
insulator Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { contact } & \text { UL.94V-0 } \\ \text { Brass CuZn36Pb ( } \mathbf{c} 36000 \text { ) }\end{array}$
Connecting pin o $\quad 0.5 \mathrm{~mm}$
MECHANICALLIFE Min. 100 cycles
Ratte Current
Rated current
contact resistan
Max. $10 \mathrm{~m} \Omega$
Dielectric strenath Min. 1'000 Vrms
For corresponding socket connectors, see pages 69-84. ORDERING INFORMATION ROHS COMPLIANT PARTS


```
80
```

${ }_{-2}^{0.25 \mu \mathrm{mg}} \mathrm{Tin}^{2}$

st see page 78 for plating specs. g. 460 mber of poles. Replace $\mathbf{N N}$ with the requested number of poles
eg. 400-10-2NN-00-001101 for

360-PP-1NN-00-001101
Slotted head strip with solder tail / connecting pin, single row
avallablitry from 2 to 64 contacts
(standard number of contacts: 64)

P-2NN-00-001101
Slotted head strip with solder tail / connecting pin, double row
Avallability from $\quad 4$ to 72 contacts
(1)

370-PP-1NN-00-001101
Turret head strip with solder tail / connecting pin, single row
AVALLABLITY From 2 to 64 contacts (standard number of contacts: 64
470-PP-2NN-00-001101
Turret head strip with solder tail / connecting pin, double row avalabiltry from 4 to 72 contacts
(standard number of contacts: 72)
380-PP-1NN-00-001101
Solder cup strip with solder tail / connecting pin, single row AVALLABLITY From 2 to 64 contacts. (standard number of contacts: 64)
480-PP-2NN-00-001101
Solder cup strip with solder tail / connecting pin, double row
avallability from 4 to 72 contacts
(standard number of contacts: 72)


PCB HEADER STRIPS 2.54 mm
single row / double row / wire-wrap
WWW.PRECIIIP.COM TEL+4132421 0400 SALESePRECIIIP.COM

TECHNICAL SPECIFICATIONS (For general specs, see page 4)
Black glass filled polyester PCT-GF30-FR
contact Brass CuZn36Pb3 (C36000)
WIRE-WRAPTERMINAL $\quad \square 0.635 \mathrm{~mm}$, 3 -level
MECHANCALLIFE
RATE CURRENT $\int_{3 \mathrm{~A}}^{\text {Min. } 100 \text { cycles }}$
${ }^{\text {Rated CURRENT }}$ 3A
Max. $10 \mathrm{~m} \Omega$
dielectric strenath Min. 10000 Vrns
For corresponding socket connectors, see pages 69-84. ORDERING INFORMATION ROHS COMPLIANT PARTS $\begin{array}{lll}\text { PP PLATING COOE } & \begin{array}{l}\text { TERMINATION } \\ 0.25\end{array} & \begin{array}{l}\text { CONNECTING PIN } \\ 0.25\end{array} \\ & 0.25 \text { gold }\end{array}$


353-10-1NN-00-001101
Pin header strip with wire-wrap termination, single row avalıablity from 2 to 64 contacts

Ttandard number of contacts: 64
$-2 N N-00-00110$
Pin header strip with wire-wrap termination, double row
avaluablury from
AVAILABLITYY From $\quad 4$ to 72 contacts
(standard number of contacts: 72 )

s63-10-1 NN-00-001101
Slotted head strip with wire-wrap termination, single row
AvalLABLITTY From
2 to
2 to 64 contacts
(standard number of contacts: 64)
463-10-2NN-00-001101
Slotted head strip with wire-wrap termination, double row avallablity from $\quad 4$ to 72 contacts
(standard number of contacts: 72)

373-10-1NN-00-001101
Turret head strip with wire-wrap termination, single row AvalLABLITry from 2 to 64 contacts (standard number of contacts: 64)
473-10-2NN-00-001101
Turret head strip with wire-wrap termination, double row
AvalLablity from $\quad 4$ to 72 contacts
(standard number of contacts: 72)
383-10-1 NN-00-001101
Solder cup strip with wire-wrap termination, single row
AVAILABLITY From $\quad 2$ to 64 contacts
(standard number of contacts: 64)
483-10-2NN-00-001101
Solder cup strip with wire-wrap termination, double row
avaliabluty from 4 to 72 contacts
(standard number of contacts: 72)


Due to technical progress, all information provided is subject to change without prior notice.
preci-dip
WWW.PRECIIP.COM TEL+41324210400 SALESePRECIIP.COM

TECHNICAL SPECIFICATIONS (For general specs, sea page 43
Black glass filled polyester PBT-GF30-FR

Connecting ping $\quad 0.56 \mathrm{~mm}$
mechanical Life Min. 100 cycles
Rated current
CONtact resistan
Max. $10 \mathrm{~m} \Omega$
DIELECTRIC STRENGTH Min. 1 '000 VeMs
ORDERING INFORMATION ROHS COMPLIANT PARTS

$$
\begin{array}{ll}
\text { PPLATING CODE } & \begin{array}{l}
\text { TERMNATION } \\
0.15 ~ \mu m ~ g o l ~
\end{array} \\
1
\end{array}
$$



999-11-110-10
Umpers for socket connectors, $\mathrm{B}=2.54 \mathrm{~mm}$ (Fig 2)
999-11-210-1
Black insulator
Red insulator


Jumpers for socket connectors, B $=5.08 \mathrm{~mm}$, not insulated (Fig. 3)
999-11-112-10
Jumpers for socket connectors, B=5.08 mm (Fig. 4):
999-11-220-10
Black insulator
Red insulator


Jumpers for socket connectors, $\mathrm{B}=7.62 \mathrm{~mm}$, not insulated (Fig. 5) 999-11-113-10

Jumpers for socket connectors, $\mathrm{B}=7.62 \mathrm{~mm}$ (Fig. 6): 999-11-230-10
Black insulator
Red insulator


PTION

| шіттн ( (MM) | part number |
| :---: | :---: |
| 2.54 | 999-51-110-10 |
| 5.08 |  |

5.08 999-51-112-10

999-51-113-

FEMALE JUMPERS

## preci-dip

WWW.PRECIIP.COM TEL +41324210400 SALESePREEIIDP.com
top of insulator body.
TECHNICAL SPECIFICATIONS (For general specs, see page 43)
Elack glass filed polyester PBT-GF30-FR
соntact Phosphor bronze
$\underset{\text { MAECHANICALLIFE }}{\text { Mating Pin }} \quad \square 0.635 \mathrm{~mm}$
$\begin{array}{ll}\text { ReChanicallife } & \text { Min. } 100 \text { cycles } \\ \text { Rated current } & 1 \mathrm{~A}(2 \mathrm{~mm}) / 3 \mathrm{~A}(2.54 \mathrm{~mm})\end{array}$
$\begin{array}{ll}\text { CONTACT RESITtance } & \text { Max. } 20 \mathrm{~m} \Omega \\ \text { DIELECTRIC STRENGTH } & \text { Min. } 500 \text { Vem }\end{array}$
ORDERING INFORMATION ROHS COMPLIANT PARTS pp plating cood

$$
\begin{aligned}
& \text { TERMNATITON } \\
& \text { Flash gold }
\end{aligned}
$$



2 mm jumpers for $\triangle 0.5 \mathrm{~mm}$ pin headers, closed body:
999-19-220-0
Black insulator

$\square$

2 mm jumpers for $\square 0.5 \mathrm{~mm}$ pin headers, stackable open body:
999-19-320-00
Black insulator


54 mm jumpers for $\square 0.635 \mathrm{~mm}$ in headers, closed bod
999-19-210-00
Black insulator
999-19-210-0
999-19-210-0
999-19-210-0
Blue insulator

2.54 mm jumpers for $\square 0.635 \mathrm{~mm}$ pin headers, stackable open body:

999-19-310-00
Black insulator
999-19-310-02
Red insulator
999-19-310-06
Blue insulator

## DIL SOCKETS



$$
\overline{10}
$$

preci-dip
WWW.PRECIIIP.COM TEL+41 $3242110400 \quad$ SALLESePREEIIIP.COM
QUICK SELECTOR CHART

| GRID | 2.54 mm |  | STAGGERED 2.54 mm | $\underset{\substack{\text { STAGGERED } \\ 2.54 \mathrm{~mm}}}{\mathrm{SILL}}$ | то |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SOCKETS |  |  | SEE PAGE |  |  |
| Solder tail | 129 | 141 | 150 | 150 | 149 |
| Solder tail automatic insertion | 130 |  |  |  |  |
| Solder tail with decoupling capacitor | 131 |  |  |  |  |
| Surface mount | 132, 134 | 141 |  |  |  |
| Surface mount pick and place | 133, 135 |  |  |  | 149 |
| Solder tai ultralow profile | 137 |  |  |  |  |
| Solder tail interconnect | 138 |  |  |  |  |
| Wire-wrap | 139 |  |  |  |  |
| Solderless <br> press-fit mount | 142 |  |  |  |  |
| Carrier | 143 |  |  |  |  |
| Display right angle solder tail | 144 |  |  |  |  |
| Crystal, relay and display, partially equipped solder tail | 151 |  |  |  |  |

headers
Solder tail

## DIL SOCKETS <br> general specifications

preci-dip
WWW.PRECIDIP.COM TEL +41 324210400 SALESQPRECIIP.COM
The values listed below are general specs applying for PRECI-DIP DIL sockets. Please see individual catalog page for additional and product
specific technical data.
$\begin{array}{ll}\begin{array}{l}\text { OPERating tempreature range } \\ \text { climatic category (IEC) }\end{array} & \begin{array}{l}-55 \ldots+125^{\circ} \mathrm{C} \\ 55 / 125 / 21\end{array}\end{array}$
climatic category (IEC)
max. working voltage

$$
\text { 55/125/21 } \text { Annual mean } 75^{\circ}
$$

100 Vems/150 Vod
PRECI-DIP connectors designated «Series Preci- Dip Connector» are recognized by UL LLC and listed under «Connectors for Use
in Data, Signal, Control and Power Applications», File Nr. E174442.

MECHANICAL CHARACTERISTICS
CLIP RETENTION Min. 40 N (no displacement under axial force applied
ELECTRICAL CHARACTERISTICS
INSULATIO REEISTANCE AT 500 V AC BETWEEN ANY TWO ADJACENT Contacts Min. 10'000 M $\Omega$
capacitance between any two adjacent contacts

ENVIRONMENTAL CHARACTERISTICS
The sockets withstand the following environmental tests without mechanical
and electrical defects:

- Dry heat steady state IEC 60512-11-9.11i / 60068-2-2.Bb: $125^{\circ} \mathrm{C}, 16 \mathrm{~h}$
- Damp heat cyclic IEC $60512-11-12.11 \mathrm{~m} / 60068-2-30$. Db: $25 / 55^{\circ} \mathrm{C}, 90-100 \%$ rH
- Thermal shock IEC $60512-11-4.111 / / 60068-2-14 \cdot \mathrm{Na:}:-55 / 125^{\circ} \mathrm{C}$, 5 cycles 30 min
- Sinusoidal vibrations IEC 60512-6-4.6d / 60068-2-6. FC: 10 to $500 \mathrm{~Hz}, 10$ g,

1 octave/min, 10 cycles for each axis

During the above two tests, no contact interruption $>50$ ns does appear

- Solderability J-STD-002A, Test A, $245^{\circ} \mathrm{C}, 5 \mathrm{~s}$, solder alloy SnAg3.8Cu0. 7
- Resistance to soldering heat $\mathrm{J}-\mathrm{STD}-\mathrm{O} 20 \mathrm{C}, 260^{\circ} \mathrm{C}, 20 \mathrm{~s}$
- Resistance to sotdering Heat J-S.

SOLDERLESS COMPLIANT PRESS-FIT CHARACTERISTICS

| - Press-in force: | 90 Nmax (at min hole dia) / 65 N |
| :---: | :---: |
| - Push-out force: | 30 Nmin . (at max. hole dia.) / 50 N typ. |
| - Push-out 3rd cycle: | 20 Nmin . (at max. hole dia.) |
| PCB HoLe dimensions |  |
| $\cdot 2.54$ mm grid | Finished hole ø: $1+0.09 /-0.06 \mathrm{~mm}$ |
|  | Drilled hole ø: $1.15 \pm 0.025 \mathrm{~mm}$ |
| рсв hole plating |  |
| PCB surface finish | Hole plating |
| - Tin | $5-15 \mu \mathrm{~m}$ tin over min. $25 \mu \mathrm{~m}$ copper |
| - Copper | min. 25 um copper |
| - Gold over nickel | 0.05-0.2 $\mu \mathrm{m}$ gold over $2.5-5 \mu \mathrm{~m}$ nickel overmin. 25 um copper |

## DUAL-IN-LINE SOCKETS

preci-dip

| $\begin{aligned} & 210 \\ & \text { Fig. } 1 \end{aligned}$ |  |
| :---: | :---: |
| $\begin{gathered} 304 \\ \text { Fig. } 2 \end{gathered}$ |  |
| $\begin{gathered} 306 \\ \text { Fig. } 3 \end{gathered}$ |  |
| $\begin{aligned} & 308 \\ & \text { Fig. } 4 \end{aligned}$ |  |

$$
\begin{gathered}
\quad 650 \\
\text { Fig. } 27
\end{gathered}
$$

$\stackrel{-4 \times 2.54-1}{-i+1}$
$\stackrel{-4 \times 2.54-1}{-i+1}$
312
Fig 6

$\stackrel{314}{\text { Fig. } 7}$

316
Fig. 8



$$
\begin{gathered}
318 \\
\text { Fig. } 9
\end{gathered}
$$

318
Fig. 9

${ }_{\text {Fig. }}^{320}$




322



$$
{ }_{\text {Fig. } 15}^{422}
$$

Fig. 19

${ }_{\text {Fig. }} 20$


964
Fig. 31

ORDERING INFORMATION


## DUAL-IN-LINE SOCKETS <br> open frame/solder tall

## preci-dip

WWW.PRECIIP.COM TEL+41324210400 SALESePRECIIP.COM
standard low profile DIL Sockets.
TECHNICAL SPECIFICATIONS (For general specs, sEE PAGE 127)

| Lator | Black glass filled polyester PCT-GF30-FR |
| :---: | :---: |
| flammablity | UL.94V-O |
| sleeve | Brass CuZn36Pb3 (C36000) |
| Contact clip (4 Finger) | Beryllium copper (C17200) |
| accepted pino | 0.40 to 0.56 mm |
| forces | 2 N typ. insertion (polished steel gauge $\varnothing 0.43 \mathrm{~mm}$ typ. withdrawa |
| mechanical life | Min. 100 cycles |
| rated current | 1 A |
| contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| dielectric strentit | Min. $1^{1000}{ }^{\text {Vems }}$ |

ORDERING INFORMATION ROHS COMPLIANT PARTS

```
87 %ll
```



OPTIONS
Insulators without center bar ${ }^{\star}$
open frame insulators $318,320,322,324,624,628,632,640$
and 648 avaliable on special request without center bars; add suffix 151 to the part number. Exan

Sockets with increased solder tail length of 4.2 mm
allowing application on multilayer PCBs up to 3.4 mm
thickness replace 110 …............ by 111
Sockets with soft brass pin series $110 \ldots . . . . .$.


For DIL Sockets with closed frame insulators replace 110 by 210 -... Please consult for available pin numbers

ther plating on request (see page 178 for plating specs).

| no. of poles | A | в | c | SEE PAGE 128 | order codes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | Fig. 1 | 110-PP-210-41-001101 |
| 4 | 5.0 | 7.62 | 10.1 | Fig. 2 | 110-PP-304-41-001101 |
| 6 | 7.6 | 7.62 | 10.1 | Fig. 3 | 110-PP-306-41-001101 |
| 8 | 10.1 | 7.62 | 10.1 | Fig. 4 | 110-PP-308-41-001101 |
| 10 | 12.6 | 7.62 | 10.1 | Fig. 5 | 110-PP-310-41-001101 |
| 12 | 15.2 | 7.62 | 10.1 | Fig. 6 | 110-PP-312-41-001101 |
| 14 | 17.7 | 7.62 | 10.1 | Fig. 7 | 110-PP-314-41-001101 |
| 16 | 20.3 | 7.62 | 10.1 | Fig. 8 | 110-PP-316-41-001101 |
| 18* | 22.8 | 7.62 | 10.1 | Fig. 9 | 110-PP-318-41-001101 |
| 20* | 25.3 | 7.62 | 10.1 | Fig. 10 | 110-PP-320-41-001101 |
| 22* | 27.8 | 7.62 | 10.1 | Fig. 11 | 110-PP-322-41-001101 |
| 24* | 30.4 | 7.62 | 10.1 | Fig. 12 | 110-PP-324-41-001101 |
| 28 | 35.5 | 7.62 | 10.1 | Fig. 13 | 110-PP-328-41-001101 |
| 20 | 25.4 | 10.16 | 12.6 | Fig. 14 | 110-PP-420-41-001101 |
| 22 | 27.8 | 10.16 | 12.6 | Fig. 15 | 110-PP-422-41-001101 |
| 24 | 30.4 | 10.16 | 12.6 | Fig. 16 | 110-PP-424-41-001101 |
| 28 | 35.5 | 10.16 | 12.6 | Fig. 17 | 110-PP-428-41-001101 |
| 32 | 40.6 | 10.16 | 12.6 | Fig. 18 | 110-PP-432-41-001101 |
| 10 | 12.7 | 15.24 | 17.7 | Fig. 19 | 110-PP-610-41-001101 |
| 24* | 30.5 | 15.24 | 17.7 | Fig. 20 | 110-PP-624-41-001101 |
| $28 *$ | 35.5 | 15.24 | 17.7 | Fig. 21 | 110-PP-628-41-001101 |
| 32* | 40.6 | 15.24 | 17.7 | Fig. 22 | 110-PP-632-41-001101 |
| 36 | 45.7 | 15.24 | 17.7 | Fig. 23 | 110-PP-636-41-001101 |
| 40* | 50.8 | 15.24 | 17.7 | Fig. 24 | 110-PP-640-41-001101 |
| 42 | 53.3 | 15.24 | 17.7 | Fig. 25 | 110-PP-642-41-001101 |
| 48* | 60.9 | 15.24 | 17.7 | Fig. 26 | 110-PP-648-41-001101 |
| 50 | 63.5 | 15.24 | 17.7 | Fig. 27 | 110-PP-650-41-001101 |
| 52 | 66.0 | 15.24 | 17.7 | Fig. 28 | 110-PP-652-41-001101 |
| 50 | 63.5 | 22.86 | 25.3 | Fig. 29 | 110-PP-950-41-001101 |
| 52 | 66.0 | 22.86 | 25.3 | Fig. 30 | 110-PP-952-41-001101 |
| 64 | 81.2 | 22.86 | 25.3 | Fig. 31 | 110-PP-964-41-001101 |

## DUAL-IN-LINE SOCKETS <br> automatic insertion / open frame/ solder tall

WWW.PREIIIP.COM TEL+41 324210400 SALESePREGIIIP.COM
DIL sockets with ribbed insulator body and soft copper alloy contacts compatible with automatic insertion equipment.
TECHNICAL SPECIFICATIONS (For general specs, see page 127)

| Insulator | ak glass filled polyester PCT-GF30- |
| :---: | :---: |
| flammablity | UL94V-0 |
| sleeve | Brass CuZn36Pb3 (C36000) |
| contact clip (4 finger) | Beryllium copper (C17200) |
| accepted pino | 0.40 to 0.56 mm |
| forces |  |
| mechanical life | Min. 100 cycles |



Rated curkent 1 A
Contact resistance
$\begin{array}{lll}\text { Contactresistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { DIELECTRII STRENGTH } & \text { Min. } 1 \text { 1'OOOV }\end{array}$
ORDERING INFORMATION ROHS COMPLIANT PARTS
pp plating cook sleeve
83


| No. of poles | в | see below | ORder codes |
| :---: | :---: | :---: | :---: |
| 6 | 7.62 | Fig. 1 | 110-PP-306-41-60510 |
| 8 | 7.62 | Fig. 2 | 110-PP-308-41-60510 |
| 14 | 7.62 | Fig. 3 | 110-PP-314-41-605101 |
| 16 | 7.62 | Fig. 4 | 110-PP-316-41-60510 |
| 18 | 7.62 | Fig. 5 | 110-PP-318-41-605101 |
| 20 | 7.62 | Fig. 6 | 110-PP-320-41-60510 |
| 24 | 7.62 | Fig. 7 | 110-PP-324-41-605101 |
| 28 | 7.62 | Fig. 7a | 110-PP-328-41-60510 |
| 22 | 10.16 | Fig. 8 | 110-PP-422-41-605101 |
| 24 | 15.24 | Fig. 9 | 110-PP-624-41-60510 |
| 28 | 15.24 | Fig. 10 | 110-PP-628-41-60510 |
| 32 | 15.24 | Fig. 11 | 110-PP-632-41-60510 |
| 40 | 15.24 | Fig. 12 | 110-PP-640-41-60510 |

INSULATOR BODIES


DUAL-IN-LINE CAPACITOR
SOCKETS
preci-dip
WWW.PRECIIIP.COM TEL+41 324210400 SALESePRECIIIP.COM
open frame / solder tall
mutilayer decoupling capacitor $100 \mathrm{nF}+80 \%-20 \% / 50 \mathrm{~V}$, epoxy erapsulated.


$\begin{array}{ll}\text { contact CLIP (4 Filiger) } & \text { Beryllium copper (C17200) }\end{array}$
accepted pino
0.40 to 0.56 mm
forces

Mechanical LIFE
Min. 100 cycles
rated current
${ }_{1}^{1 / 4}$ Max. 10 m
$\begin{array}{ll}\text { contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { Dielectric strenath } & \text { Min. } 1^{\prime} 000 \text { Vrin }\end{array}$

ORDERING INFORMATION ROHS COMPLIANT PARTS



Other plating on request (see page 178 for plating specs).


| no. of poles | A | в | c | SEE PAGE 128 | order codes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 17.7 | 7.62 | 10.1 | Fig. 7 | 110-PP-314-41-801101 |
| 16 | 20.3 | 7.62 | 10.1 | Fig. 8 | 110-PP-316-41-801101 |
| 18 | 22.8 | 7.62 | 10.1 | Fig. 9 | 110-PP-318-41-801101 |
| 20 | 25.3 | 7.62 | 10.1 | Fig. 10 | 110-PP-320-41-801101 |
| 24 | 30.4 | 15.24 | 17.7 | Fig. 20 | 110-PP-624-41-801101 |
| 28 | 35.5 | 15.24 | 17.7 | Fig. 21 | 110-PP-628-41-801101 |
| 32 | 40.6 | 15.24 | 17.7 | Fig. 22 | 110-PP-632-41-801101 |
| 40 | 50.8 | 15.24 | 17.7 | Fig. 24 | 110-PP-640-41-8011 |

## DUAL-IN-LINE SOCKETS <br> OPEN FRAME / SURFACE MOUNT

preci-dip

TECHNICAL SPECIFICATIONS (For general specs, se peage 127)
Insulator Black glass filled polyester PCT-GF30-FR

SLEEVE Brass CuZn36Pb3 (C36000)
CONTACT CLIP (4 Finger) Berylium copper (C17200)
ACCETTED PIN
accepted pino
.40 to 0.56 mm
$\begin{array}{ll}\text { FORCES } & \begin{array}{l}\text { 2N typ. insertion } \\ \text { (polished steel Ia }\end{array} \\ \text { MECHANICAL LIFE } & \text { Min. } 100 \text { cycles }\end{array}$
Rated current
contact resistance Max. $10 \mathrm{~m} \Omega$

ORDERING INFORMATION ROHS COMPLIANT PARTS

$\begin{array}{lll}\text { pp plating cooe } & \text { Slever } & \text { clip } \\ 87 \\ 83 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.55 \mu \mathrm{~m} \text { gold }\end{array}$


|  | A | в | c | - | sef pa | order cooles |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | 9.72 | Fig. 1 | 110-PP-210-41-1051 |
| 4 | 5.0 | 7.62 | 10.1 | 12.26 | Fig. 2 | 110-PP-304-41-10510 |
| 6 | 7.6 | 7.62 | 10.1 | 12.26 | Fig. 3 | 110-PP-306-41-10510 |
| 8 | 10.1 | 7.62 | 10.1 | 12.26 | Fig. 4 | 110-PP-308-41-105 |
| 10 | 12.6 | 7.62 | 10.1 | 12.26 | Fig. 5 | 110-PP-310-41-10510 |
| 12 | 15.2 | 7.62 | 10.1 | 12.26 | Fig. 6 | 110-PP-312-41-10 |
| 14 | 17.7 | 7.62 | 10.1 | 12.26 | Fig. 7 | 110-PP-314-41-10 |
| 16 | 20.3 | 7.62 | 10.1 | 12.26 | Fig. 8 | 110-PP-316-41-1051 |
| 18 | 22.8 | 7.62 | 10.1 | 12.26 | Fig. 9 | 110-PP-318-41-10510 |
| 20 | 25.3 | 7.62 | 10.1 | 12.26 | Fig. 10 | 110-PP-320-41-10 |
| 22 | 27.8 | 7.62 | 10.1 | 12.26 | Fig. 11 | 110-PP-322-41-105 |
| 24 | 30.4 | 7.62 | 10.1 | 12.26 | Fig. 12 | 110-PP-324-41-105101 |
| 28 | 35.5 | 7.62 | 10.1 | 12.26 | Fig. 13 | 110-PP-328-41-1 |
| 20 | 25.4 | 10.16 | 12.6 | 14.80 | Fig. 14 | 110-PP-420-41-105101 |
| 22 | 27.8 | 10.16 | 12.6 | 14.80 | Fig. 15 | 110-PP-422-41-105101 |
| 24 | 30.4 | 10.16 | 12.6 | 14.80 | Fig. 16 | 110-PP-424-41-10510 |
| 28 | 35.5 | 10.16 | 12.6 | 14.80 | Fig. 17 | 110-PP-428-41-10 |
| 32 | 40.6 | 10.16 | 12.6 | 14.80 | Fig. 18 | 110-PP-432-41-1051 |
| 24 | 30.5 | 15.24 | 17.7 | 19.88 | Fig. 20 | 110-PP-624-41-105 |
| 28 | 35.5 | 15.24 | 17.7 | 19.88 | Fig. 21 | 110-PP-628-41-10510 |
| 32 | 40.6 | 15.24 | 17.7 | 19.88 | Fig. 22 | 110-PP-632-41-10510 |
| 36 | 45.7 | 15.24 | 17.7 | 19.88 | Fig. 23 | 110-PP-636-41-10510 |
| 40 | 50.8 | 15.24 | 17.7 | 19.88 | Fig. 24 | 110-PP-640-41-1051 |
| 42 | 53.3 | 15.24 | 17.7 | 19.88 | Fig. 25 | 110-PP-642-41 |
| 48 | 60.9 | 15.24 | 17.7 | 19.88 | Fig. 26 | 110-PP-648-41-105 |

DUAL-IN-LINE SOCKETS
open frame / surface mount, pick and plac
preci-dip
LN FRAME SURFACE MOUNT, MCK
TECHNICAL SPECIFICATIONS (for General specs, see page 127)
insulator Black glass filled polyester PCT-GF30-FR
Leveve UL94V-O
$\begin{array}{ll}\text { sLEEVE } \\ \text { CoNTACT CLIP (4FINGER) } & \text { Brass CuZn36Pb3 ( (C36000) }\end{array}$
$\begin{array}{ll}\text { CoNTACT CLIP (4 FINGER) } & \text { Bery llium copper } \\ \text { Accepred Ping } & 0.40 \text { to } 0.56 \mathrm{~mm}\end{array}$
forces 0. 40 to 0.56 mm
forces
 Mechanical LIFE
Rated current
Contact resistanct
contact resistance 1 A

coplanarity
smo termination
ORDERING INFORMATION ROHS COMPLIANT PARTS



ther plating on request (see page 178 for plating specs).
ape \& Reel packaging:
Please consulw ix 19 to part number. Other pin counts please consult
Rel. number of components per reel. packing units and part numbers.

| no. of PoLes | A | в | c | - | E | order codes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 7.6 | 7.62 | 10.1 | 12.26 | 7.6 | 110-PP-306-41-105161 |
| 8 | 10.1 | 7.62 | 10.1 | 12.26 | 10.1 | 110-PP-308-41-105161 |
| 10 | 12.6 | 7.62 | 10.1 | 12.26 | 12.6 | 110-PP-310-41-105161 |
| 14 | 17.8 | 7.62 | 10.1 | 12.26 | 5.3 | 110-PP-314-41-105161 |
| 16 | 20.3 | 7.62 | 10.1 | 12.26 | 5.3 | 110-PP-316-41-105161 |
| 18 | 22.9 | 7.62 | 10.1 | 12.26 | 5.3 | 110-PP-318-41-105161 |
| 20 | 25.4 | 7.62 | 10.1 | 12.26 | 8.3 | 110-PP-320-41-105161 |
| 24 | 30.4 | 7.62 | 10.1 | 12.26 | 8.3 | 110-PP-324-41-105161 |
| 28 | 35.6 | 7.62 | 10.1 | 12.26 | 8.3 | 110-PP-328-41-105161 |
| 28 | 35.5 | 15.24 | 17.7 | 19.88 | 10.0 | 110-PP-628-41-105161 |
| 32 | 40.6 | 15.24 | 17.7 | 19.88 | 10.0 | 110-PP-632-41-105161 |
| 40 | 50.8 | 15.24 | 17.7 | 19.88 | 10.0 | 110-PP-640-41-105161 |
| 42 | 53.4 | 15.24 | 17.7 | 19.88 | 10.0 | 110-PP-642-41-105161 |

## pCB LAYOUT <br> 

DUAL-IN-LINE SOCKETS
preci-dip
WWW.PRECIIIP.COM TEL+4132421 0400 SALESePRECIIP.COM

TECHNICAL SPECIFICATIONS (for general specs, see page 127)

| insulator | Black glass filled polyester PCT-GF30-FR |
| :---: | :---: |
| flammablity | UL94V-0 |
| sleeve | Brass CuZn36Pb3 (C36000) |
| CONTACT CLIP (4 FINGER) | Beryllium copper (C17200) |
| accepted pino | 0.40 to 0.56 mm |
| forces | 2 Ntyp . insertion 1 N typ. withdrawa (polished steel gauge $\varnothing 0.43 \mathrm{~mm}$ ) |
| mechanical life | Min. 100 cycles |

rated current
contact resistance Max. $10 \mathrm{~m} \Omega$
coplanamiry
SMOTTERMMNTIINS
ORDERING INFORMATION ROHS COMPLIANT PARTS
87
83
sleeve
Flash gold

## 



| no. of poles | A | в | c | seE Page 1 | order cooms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | Fig. 1 | 114-PP-210-41-117101 |
| 4 | 5.0 | 7.62 | 10.1 | Fig. 2 | 114-PP-304-41-177101 |
| 6 | 7.6 | 7.62 | 10.1 | Fig. 3 | 114-PP-306-41-117101 |
| 8 | 10.1 | 7.62 | 10.1 | Fig. 4 | 114-PP-308-41-117101 |
| 10 | 12.6 | 7.62 | 10.1 | Fig. 5 | 114-PP-310-41-117101 |
| 12 | 15.2 | 7.62 | 10.1 | Fig. 6 | 114-PP-312-41-117101 |
| 14 | 17.7 | 7.62 | 10.1 | Fig. 7 | 114-PP-314-41-117101 |
| 16 | 20.3 | 7.62 | 10.1 | Fig. 8 | 114-PP-316-41-117101 |
| 18 | 22.8 | 7.62 | 10.1 | Fig. 9 | 114-PP-318-41-117101 |
| 20 | 25.3 | 7.62 | 10.1 | Fig. 10 | 114-PP-320-41-117101 |
| 22 | 27.8 | 7.62 | 10.1 | Fig. 11 | 114-PP-322-41-117101 |
| 24 | 30.4 | 7.62 | 10.1 | Fig. 12 | 114-PP-324-41-117101 |
| 28 | 35.5 | 7.62 | 10.1 | Fig. 13 | 114-PP-328-41-117101 |
| 20 | 25.4 | 10.16 | 12.6 | Fig. 14 | 114-PP-420-41-117101 |
| 22 | 27.8 | 10.16 | 12.6 | Fig. 15 | 114-PP-422-41-117101 |
| 24 | 30.4 | 10.16 | 12.6 | Fig. 16 | 114-PP-424-41-117101 |
| 28 | 35.5 | 10.16 | 12.6 | Fig. 17 | 114-PP-428-41-117101 |
| 32 | 40.6 | 10.16 | 12.6 | Fig. 18 | 114-PP-432-41-117101 |
| 24 | 30.5 | 15.24 | 17.7 | Fig. 20 | 114-PP-624-41-117101 |
| 28 | 35.5 | 15.24 | 17.7 | Fig. 21 | 114-PP-628-41-117101 |
| 32 | 40.6 | 15.24 | 17.7 | Fig. 22 | 114-PP-632-41-117101 |
| 36 | 45.7 | 15.24 | 17.7 | Fig. 23 | 114-PP-636-41-117101 |
| 40 | 50.8 | 15.24 | 17.7 | Fig. 24 | 114-PP-640-41-117101 |
| 42 | 53.3 | 15.24 | 17.7 | Fig. 25 | 114-PP-642-41-117101 |
| 48 | 60.9 | 15.24 | 17.7 | Fig. 26 | 114-PP-648-41-17101 |

DUAL-IN-LINE SOCKETS
OPEN FRAME / SURFACE MOUNT PICK AND PLACE
WWW.PRECIIIP.COM TEL+41 324210400 SALESePrRECIIIP.CoM
Specialy designed for reflow soldering including vapor phase with unique self-aligning floating contac
TECHNICAL SPECIFICATIONS (For General specs, see page 127

| INSULATOR FLAMMABILITY | Black glas |
| :---: | :---: |
| steeve | Brass CuZn36R |
| contact clip ( 4 Finger) | Beryllium co |
| accepted pino | 0.40 to 0.56 |
| forces | 2 N typ. insertio (polished steel |
| mechanical life | Min. 100 cycles |
| rated current | 1 A |
| contact resistance | Max. 10 |
| dielectric strenath | Min. $1^{10000}$ |
|  | Max. 0.10 mm |
| ORDERING INFORMATION ROH |  |
| pp plating cood |  |
| 87 | Tin |
| 83 | Tin |
| $1+\mathrm{B}-1$ |  |
| $3^{2.4} 4$ | $2.8$ |


ther plating on request (see page 178 for plating specs).
Tape \& Reel packaging:
eplace 161 by suffix 199 to part number. Other pin counts please consu
case consult www.precidip.com for avail ability size of tape, size of

| no. of PoLEs | A | в | c | E | order codes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 7.6 | 7.62 | 10.1 | 7.6 | 114-PP-306-41-134161 |
| 8 | 10.1 | 7.62 | 10.1 | 10.1 | 114-PP-308-41-134161 |
| 10 | 12.6 | 7.62 | 10.1 | 12.6 | 114-PP-310-41-134161 |
| 12 | 15.2 | 7.62 | 10.1 | 5.3 | 114-PP-312-41-134161 |
| 14 | 17.8 | 7.62 | 10.1 | 5.3 | 114-PP-314-41-134161 |
| 16 | 20.3 | 7.62 | 10.1 | 5.3 | 114-PP-316-41-134161 |
| 18 | 22.9 | 7.62 | 10.1 | 5.3 | 114-PP-318-41-134161 |
| 20 | 25.4 | 7.62 | 10.1 | 8.3 | 114-PP-320-41-134161 |
| 24 | 30.4 | 7.62 | 10.1 | 8.3 | 114-PP-324-41-134161 |
| 28 | 35.6 | 7.62 | 10.1 | 8.3 | 114-PP-328-41-134161 |
| 28 | 35.5 | 15.24 | 17.7 | 10.0 | 114-PP-628-41-134161 |
| 32 | 40.6 | 15.24 | 17.7 | 10.0 | 114-PP-632-41-134161 |
| 40 | 50.8 | 15.24 | 17.7 | 10.0 | 114-PP-640-41-134161 |
| 42 | 53.4 | 15.24 | 17.7 | 10.0 | 114-PP-642-41-134161 |



## DUAL-IN-LINE SOCKETS <br> <br> nsulator bodies / ultralow, open fram

 <br> <br> nsulator bodies / ultralow, open fram}preci-dip










424
Fig. 13






${ }_{\text {Fig. } 16}^{628}$




${ }_{\text {Fig. } 17}^{632}$



DUAL-IN-LINE SOCKETS

## ditralow and very low profie/ open frame/soldertall

preci-dip
WWW.PRECIIP.COM TEL +41324210400 SALESePRECIIP.COM
"Ultralow" sockets have specially designed contacts for reduced socket height above PCB.
TECHNICAL SPECIFICATIONS (FOR GENERAL SPEES, SEE PAGE 127)

| tor | Black glass filled polyester PCT-GF30-FR |
| :---: | :---: |
| flammabluty | UL94V-0 |
| sleeve | Brass CuZn36Pb3 (C36000) |
| Contact clip ( 4 eliger) | Beryllium copper (C17200) |
| accepted pino | 0.40 to 0.52 mm |
| forces | 3 N typ. insertion $\quad 1.5 \mathrm{~N}$ typ. withdrawal (polished steel gauge $\varnothing 0.43 \mathrm{~mm}$ ) |
| mechanical life | Min. 100 cycles |
| rated current | 1 A |
| contactresistance | Max. $10 \mathrm{~m} \Omega$ |
| dielectric strenath | Min. $1^{1000}{ }^{\text {V }}$ vens |
| ORDERING INFOR PP PLATING CODE | MATION ROHS COMPLIANT PARTS |
| 87 | Tin Flash gold |
| 83 | Tin $\quad 0.75 \mu \mathrm{mgo}$ |



Other plating on request (see page 178 for plating specs).

ULTRALOW SOCKET


Fig. 1
options:

## VERY LOW VERSION

Very low version (Fig. 2) is optional; change suffix 003101 to 001101 Insulator body dimensions see page 128 Fig. 1 to 31 . Same number


Fig. 2

DUAL-IN-LINE SOCKETS
preci-dip
interconnect/open frame/solder tall
WWW.PRECIIP.COM TEL+4132421 0400 SALESePRECIIIP.COM

TECHNICAL SPECIFICATIONS (for general specs, see page 127)


ORDERING INFORMATION ROHS COMPLIANT PARTS

| PP PLATING CODE | SLLEVE | CLIP |
| :--- | :--- | :--- |
| 87 | Tin | Flash gold |
| 83 | Tin | 075 mm gild |

or complete part number replage 178 for plating specs).
wer replace XXX with the code given below lef
for the required contact length $L$.


| AVAILABLE CONTACT LENGTHS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | L2 (mm) | Contac | ${ }_{02} \mathrm{P}$ (mm) | xxxco |
| 6 | 4.2 |  | 0.51 | 006 |
| 7 | 4.2 | 1 | 0.51 | 018 |
| 8 | 4.2 | 1 | 0.51 | 003 |
| 9 | 4.85 | 1 | 0.46 | 012 |
| 10 | 4.2 | 1 | 0.51 | 007 |
| 11 | 4.2 | 0.85 | 0.51 | 002 |
| 12 | 4.2 | 1 | 0.51 | 008 |
| 13 | 4.2 | 1 | 0.51 | 009 |
| 15 | 4.2 | 1 | 0.51 | 001 |
| 18 | 4.2 | 1 | 0.51 | 011 |
| 22 | 4.2 | 1 | 0.51 | 004 |
| 33 | 4.2 | 1.18 | 0.51 | 013 |


| no. of poles | A | в | c | SEE PAGE 128 | order cooms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | Fig. 1 | 116-PP-210-41-Xxx101 |
| 4 | 5.0 | 7.62 | 10.1 | Fig. 2 | 116-PP-304-41-XXX10 |
| 6 | 7.6 | 7.62 | 10.1 | Fig. 3 | 116-PP-306-41-XXX101 |
| 8 | 10.1 | 7.62 | 10.1 | Fig. 4 | 116-PP-308-41-XXX101 |
| 10 | 12.6 | 7.62 | 10.1 | Fig. 5 | 116-PP-310-41-XXX101 |
| 12 | 15.2 | 7.62 | 10.1 | Fig. 6 | 116-PP-312-41-XXX101 |
| 14 | 17.7 | 7.62 | 10.1 | Fig. 7 | 116-PP-314-41-XXX101 |
| 16 | 20.3 | 7.62 | 10.1 | Fig. 8 | 116-PP-316-41-XXX101 |
| 18 | 22.8 | 7.62 | 10.1 | Fig. 9 | 116-PP-318-41-XXX101 |
| 20 | 25.3 | 7.62 | 10.1 | Fig. 10 | 116-PP-320-41-XxX101 |
| 22 | 27.8 | 7.62 | 10.1 | Fig. 11 | 116-PP-322-41-XXX101 |
| 24 | 30.4 | 7.62 | 10.1 | Fig. 12 | 116-PP-324-41-XXX101 |
| 28 | 35.5 | 7.62 | 10.1 | Fig. 13 | 116-PP-328-41-XXX101 |
| 20 | 25.4 | 10.16 | 12.6 | Fig. 14 | 116-PP-420-41--xxx101 |
| 22 | 27.8 | 10.16 | 12.6 | Fig. 15 | 116-PP-422-41-XXX101 |
| 24 | 30.4 | 10.16 | 12.6 | Fig. 16 | 116-PP-424-41-XXX101 |
| 28 | 35.5 | 10.16 | 12.6 | Fig. 17 | 116-PP-428-41-XXX101 |
| 32 | 40.6 | 10.16 | 12.6 | Fig. 18 | 116-PP-432-41-XXX101 |
| 10 | 12.7 | 15.24 | 17.7 | Fig. 19 | 116-PP-610-41--xx 101 |
| 24 | 30.5 | 15.24 | 17.7 | Fig. 20 | 116-PP-624-41-XxX101 |
| 28 | 35.5 | 15.24 | 17.7 | Fig. 21 | 116-PP-628-41-XXX101 |
| 32 | 40.6 | 15.24 | 17.7 | Fig. 22 | 116-PP-632-41-Xxx101 |
| 36 | 45.7 | 15.24 | 17.7 | Fig. 23 | 116-PP-636-41-XXX101 |
| 40 | 50.8 | 15.24 | 17.7 | Fig. 24 | 116-PP-640-41-XXX10 |
| 42 | 53.3 | 15.24 | 17.7 | Fig. 25 | 116-PP-642-41-XXX101 |
| 48 | 60.9 | 15.24 | 17.7 | Fig. 26 | 116-PP-648-41-XXX101 |
| 50 | 63.5 | 15.24 | 17.7 | Fig. 27 | 116-PP-650-41-XXX101 |
| 52 | 66.0 | 15.24 | 17.7 | Fig. 28 | 116-PP-652-41-XXX101 |
| 50 | 63.5 | 22.86 | 25.3 | Fig. 29 | 116-PP-950-41-XXX101 |
| 52 | 66.0 | 22.86 | 25.3 | Fig. 30 | 116-PP-952-41-XxX101 |
| 64 | 81.2 | 22.86 | 25.3 | Fig. 31 | 116-PP-964-41-XXX101 |

## DUAL-IN-LINE SOCKETS <br> open frame / WIre-wrap

preci-dip
WWW.PRECIIP.COM TEL +41324210400 SALESePRECIIP.COM

TECHNICAL SPECIFICATIONS (For general specs, see page 127)

| insulator | Black glass filled polyester PA-GF30-FR |
| :---: | :---: |
| flammablity | UL.94V-0 |
| steeve | Brass CuZn36Pb3 (C36000) |
| Contact clip ( 4 ENGER) | Beryllium copper (C17200) |
| accepted ping | 0.40 to 0.56 mm |
| forces |  |
| mechanical life | Min. 100 cycles |
| rated current | 1 A |
| contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| dielectric strenath | Min. $1^{1} 000 \mathrm{~V}^{\text {rus }}$ |

dieLectric strenath Min. 10000 Vpus
ORDERING INFORMATION ROHS COMPLIANT PARTS

| PP PLATNG CODE | SLEEVE | CLIP |
| :--- | :--- | :--- |
| 87 | Tin | Flash gold |
| 83 | Tin | $0.75 \mu \mathrm{~m}$ gold |


ther plating on request (see page 178 for plating specs).


OPTION


| No. of poles | A | в | c | SEE PAGE 128 | order cooms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | Fig. 1 | 123-PP-210-41-00110 |
| 4 | 5.0 | 7.62 | 10.1 | Fig. 2 | 123-PP-304-41-001101 |
| 6 | 7.6 | 7.62 | 10.1 | Fig. 3 | 123-PP-306-41-001101 |
| 8 | 10.1 | 7.62 | 10.1 | Fig. 4 | 123-PP-308-41-001101 |
| 10 | 12.6 | 7.62 | 10.1 | Fig. 5 | 123-PP-310-41-001101 |
| 12 | 15.2 | 7.62 | 10.1 | Fig. 6 | 123-PP-312-41-001101 |
| 14 | 17.7 | 7.62 | 10.1 | Fig. 7 | 123-PP-314-41-001101 |
| 16 | 20.3 | 7.62 | 10.1 | Fig. 8 | 123-PP-316-41-001101 |
| 18 | 22.8 | 7.62 | 10.1 | Fig. 9 | 123-PP-318-41-001101 |
| 20 | 25.3 | 7.62 | 10.1 | Fig. 10 | 123-PP-320-41-001101 |
| 22 | 27.8 | 7.62 | 10.1 | Fig. 11 | 123-PP-322-41-00110 |
| 24 | 30.4 | 7.62 | 10.1 | Fig. 12 | 123-PP-324-41-001101 |
| 28 | 35.5 | 7.62 | 10.1 | Fig. 13 | 123-PP-328-41-001101 |
| 20 | 25.4 | 10.16 | 12.6 | Fig. 14 | 123-PP-420-41-001101 |
| 22 | 27.8 | 10.16 | 12.6 | Fig. 15 | 123-PP-422-41-001101 |
| 24 | 30.4 | 10.16 | 12.6 | Fig. 16 | 123-PP-424-41-001101 |
| 28 | 35.5 | 10.16 | 12.6 | Fig. 17 | 123-PP-428-41-00110 |
| 32 | 40.6 | 10.16 | 12.6 | Fig. 18 | 123-PP-432-41-00110 |
| 10 | 12.7 | 15.24 | 17.7 | Fig. 19 | 123-PP-610-41-00110 |
| 24 | 30.5 | 15.24 | 17.7 | Fig. 20 | 123-PP-624-41-001101 |
| 28 | 35.5 | 15.24 | 17.7 | Fig. 21 | 123-PP-628-41-001101 |
| 32 | 40.6 | 15.24 | 17.7 | Fig. 22 | 123-PP-632-41-001101 |
| 36 | 45.7 | 15.24 | 17.7 | Fig. 23 | 123-PP-636-41-00110 |
| 40 | 50.8 | 15.24 | 17.7 | Fig. 24 | 123-PP-640-41-001101 |
| 42 | 53.3 | 15.24 | 17.7 | Fig. 25 | 123-PP-642-41-001101 |
| 48 | 60.9 | 15.24 | 17.7 | Fig. 26 | 123-PP-648-41-00110 |
| 50 | 63.5 | 15.24 | 17.7 | Fig. 27 | 123-PP-650-41-00110 |
| 52 | 66.0 | 15.24 | 17.7 | Fig. 28 | 123-PP-652-41-001101 |
| 50 | 63.5 | 22.86 | 25.3 | Fig. 29 | 123-PP-950-41-00110 |
| 52 | 66.0 | 22.86 | 25.3 | Fig. 30 | 123-PP-952-41-00110 |
| 64 | 81.2 | 22.86 | 25.3 | Fig. 31 | 123-PP-964-41 |



## DUAL-IN-LINE SOCKETS Insulator bodies / SHRINKDIP, open fram

preci-dip

$\underset{\text { OPEN FRAME/ SOLLERT TALL }}{\text { SHRIN }}$
preci-dip
High density DIL sockets for devices featuring 0.077 ( 1.778 mm ) lead spacing,
TECHNICAL SPECIFICATIONS (For general specs, sem page 127)

| insulator | Black glass filled polyester PCT-GF30-FR |
| :---: | :---: |
| flammablity | UL94V-O |
| sleeve | Brass CuZn36Pb3 (C36000) |
| contact clip (4 Finger) | Beryllium copper (C17200) |
| accepted pino | 0.40 to 0.56 mm |
| forces |  |
| mechanical life | Min. 100 cycles |


$\begin{array}{ll}\text { Contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { DIELEGTRIC Strenact } & \text { Min. } 1 \times 00 \text { Vens }\end{array}$
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLating CODE SLEEVE CLIP
$\begin{array}{lll}87 & \text { Tin } & \text { Flash gold } \\ 83 & \text { Tin } & 0.75 \mu \mathrm{~m} \text { gold }\end{array}$
ther plating on request (see page 178 for plating specs).

## (1)

## options available on reouest

* Socket 117-PP-764-41-005101 available with closed frame
insulator PN 217-PP-764-41-005101



## Surface mount Shrinkdip Series $117-\ldots-41-105101$

Shrinkdip pin header, solder tail Series 150-10...-00-012101
or 150-80...-00-012101
Please consult

DUAL-IN-LINE SOCKETS
preci-dip
OPEN FRAME/PRESS-FIT

DIL Sockets with compliant press-fit pin for solderless mount in PCB plated through holes.
TECHNICAL SPECIFICATIONS (For GENERAL SPECS, SEE PAGE 127)
InsuLator
Black glass filled polyester PCT-GF30-FR

| insulator | Black glass filled polyester PCT-GF30-FR |
| :---: | :---: |
| flammablity | UL.94V-0 |
| sleeve | Bronze CuSn4Pb4Zn4 (C54400) |
| Contact clip (4 Finger) | Beryllium copper (C17200) |
| accepted ping | 0.40 to 0.56 mm |
| forces | 2 N typ. insertion 1 N typ. withdrawal (polished steel gauge $\varnothing 0.43 \mathrm{~mm}$ ) |
| mechanical life | Min. 500 cycles |
| rated current | 1 A |
| contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| dielectric strengt | Min. $1^{1} 0000 \mathrm{~V}$ vms |
| рсв ноеЕ ${ }^{\text {¢ }}$ | $1+0.09 /-0.06 \mathrm{~mm}$ finished <br> $1.15 \pm 0.025 \mathrm{~mm}$ drill) |

ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PP PLating COOE } & \begin{array}{l}\text { SLEEVE } \\ \text { Cin }\end{array} & \begin{array}{l}\text { CLIP } \\ \text { Tin }\end{array} \\ \text { Flash gold }\end{array}$


| No. of poles | A | в | c | SEE PAGE 128 | order coots |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | Fig. 1 | 146-PP-210-41-xxx 101 |
| 4 | 5.0 | 7.62 | 10.1 | Fig. 2 | 146-PP-304-41-XxX101 |
| 6 | 7.6 | 7.62 | 10.1 | Fig. 3 | 146-PP-306-41-XXX101 |
| 8 | 10.1 | 7.62 | 10.1 | Fig. 4 | 146-PP-308-41-XXX101 |
| 10 | 12.6 | 7.62 | 10.1 | Fig. 5 | 146-PP-310-41-XXX101 |
| 12 | 15.2 | 7.62 | 10.1 | Fig. 6 | 146-PP-312-41-Xxx101 |
| 14 | 17.7 | 7.62 | 10.1 | Fig. 7 | 146-PP-314-41-XXX101 |
| 16 | 20.3 | 7.62 | 10.1 | Fig. 8 | 146-PP-316-41-XXX101 |
| 18 | 22.8 | 7.62 | 10.1 | Fig. 9 | 146-PP-318-41-XXX101 |
| 20 | 25.3 | 7.62 | 10.1 | Fig. 10 | 146-PP-320-41-XXX101 |
| 22 | 27.8 | 7.62 | 10.1 | Fig. 11 | 146-PP-322-41-XXX101 |
| 24 | 30.4 | 7.62 | 10.1 | Fig. 12 | 146-PP-324-41-XXX101 |
| 28 | 35.5 | 7.62 | 10.1 | Fig. 13 | 146-PP-328-41-XXX101 |
| 20 | 25.4 | 10.16 | 12.6 | Fig. 14 | 146-PP-420-41-Xxx101 |
| 22 | 27.8 | 10.16 | 12.6 | Fig. 15 | 146-PP-422-41-XXX 101 |
| 24 | 30.4 | 10.16 | 12.6 | Fig. 16 | 146-PP-424-41-XXX 101 |
| 28 | 35.5 | 10.16 | 12.6 | Fig. 17 | 146-PP-428-41-XXX 101 |
| 32 | 40.6 | 10.16 | 12.6 | Fig. 18 | 146-PP-432-41-XXX101 |
| 24 | 30.5 | 15.24 | 17.7 | Fig. 20 | 146-PP-624-41-XxX101 |
| 28 | 35.5 | 15.24 | 17.7 | Fig. 21 | 146-PP-628-41-XXX101 |
| 32 | 40.6 | 15.24 | 17.7 | Fig. 22 | 146-PP-632-41-XXX 101 |
| 36 | 45.7 | 15.24 | 17.7 | Fig. 23 | 146-PP-636-41-XXX101 |
| 40 | 50.8 | 15.24 | 17.7 | Fig. 24 | 146-PP-640-41-XXX101 |

DUAL-IN-LINE PIN CARRIER
ASSEMBLIES
preci-dip
WWW.PRECIIIP.COM TEL+4132421 0400 SALESQPRECIIIP.COM
LOW PROFLLE / LOW PROFILE ULTRA THIN / sOLDER TAIL

TECHNICAL SPECIFICATIONS (For general specs, see page 127)


ORDERING INFORMATION ROHS COMPLIANT PARTS

| plating cood | sleev | cup |
| :---: | :---: | :---: |
| 87 | Tin | Flash gold |
| 83 | Tin | 0.75 [mgo |

ther plating on request (see page 178 for plating specs).
or complete part number replace $X-\ldots-x \mathbf{x}$-xxX with the
below left.

61X-PP-304-XX-XxX10
61X-PP-306-xX-XxX10
61X-PP-308-XX-Xxx10
61X-PP-310-XX-XXX10
61 -PP-312-Xx-xxX10
61X-PP-314-XX-XXX101
61X-PP-316-xX-xxX10 61X-PP-318-XX-XXX101 61X-PP-320-XX-XXX10 61X-PP-322-XX-XXX101
61X-PP-324-xX-xxx 101 61X-PP-328-XX-XXX10

61X-PP-420-xx-xxx101 61X-PP-422-xX-xxx101 61X-PP-424-XX-XxX101 61X-PP-428-XX-XXX10
61 -PP-432-xx-XXX10

61X-PP-610-XX-XXX101 61X-PP-624-XX-XXX101 61X-PP-628-xx-xxx10 61X-PP-632-XX-XXX101
61X-PP- $636-\mathbf{x x}-\mathrm{xx} 101$ 61X-PP-636-XX-XXX10 61X-PP-642-XX-XXX10 61X-PP-648-xx-xxx10 61X-PP-650-XX-Xxx10 61X-PP-652-XX-XXX101

61X-PP-950-XX-XXX10 61X-PP-952-XX-XXX101
available versions

| Standard carrier see Fig. 1 | 612...-41-001101 |
| :---: | :---: |
| Low profile | 614...-41-001101 |
| see Fig. 2 for PCB hole $\varnothing$ 1.4-1.8 mm |  |
| -Low profile, ultra thin | 614...-31-012101 |

DUAL-IN-LINE SOCKETS

## pightangle version /closed frame/soldertall

preci-dip

## right angle version / closed frame / solder tal

Right angle DIL Sockets for components to be mounted perpendicularly to the PCB such as display
TECHNICAL SPECIFICATIONS (FOR GENERAL SPECS, sEE PAEE 127)
$\begin{array}{ll}\text { InsuLator } & \text { Black glass filled polyester PCT-GF30-FR } \\ \text { FLAMMABLITY } & \text { UL.24V-0 }\end{array}$
$\begin{array}{ll}\text { SLEEVE } & \text { Brass CuZn36Pb3 (C36000) } \\ \text { contact clip (4 } 4 \text { FINGER) } & \text { Beryllium copper (C17200) }\end{array}$
CONTACT CLIP (4 FINGER) Beryllium copper (C17200
ACCEPTED PINQ
40 to 0.56 mm
forces
 MECHanical LIFE
$\begin{array}{ll}\text { Rated current } \\ \text { contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ & \end{array}$ ${ }_{1}{ }_{1} \mathrm{~A} \mathrm{~A} .100$ cycles

ORDERING INFORMATION ROHS COMPLIANT PARTS

${ }_{87}^{\text {PP PLATING CODE }}$| SLEEVE |
| :--- |
| Tin |
|  |

Flash gold
For complete part number replace XX with the code given below left.


ROW SPACING E
$E(m m) \quad$ ORDER CODEXX
$\begin{array}{ll}7.62 & 299 . . .10-001101 \\ 2.54 & \end{array}$

Fig. 2


| no. of poles | A | в | c | seE | order codes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | Fig. 1 | 299-PP-210-10-001101 |
| 6 | 7.6 | 7.62 | 10.1 | Fig. 2 | 299-PP-306-XX-00110 |
| 8 | 10.1 | 7.62 | 10.1 | Fig. 2 | 299-PP-308-XX-00110 |
| 10 | 12.6 | 7.62 | 10.1 | Fig. 2 | 299-PP-310-XX-001101 |
| 12 | 15.2 | 7.62 | 10.1 | Fig. 2 | 299-PP-312-xX-001101 |
| 14 | 17.7 | 7.62 | 10.1 | Fig. 2 | 299-PP-314-XX-001101 |
| 16 | 20.3 | 7.62 | 10.1 | Fig. 2 | 299-PP-316-XX-001101 |
| 18 | 22.8 | 7.62 | 10.1 | Fig. 2 | 299-PP-318-XX-001101 |
| 20 | 25.3 | 7.62 | 10.1 | Fig. 2 | 299-PP-320-XX-00110 |
| 22 | 27.8 | 7.62 | 10.1 | Fig. 2 | 299-PP-322-XX-00110 |
| 24 | 30.4 | 7.62 | 10.1 | Fig. 2 | 299-PP-324-XX-00110 |
| 8 | 10.1 | 15.24 | 17.7 | Fig. 3 | 299-PP-608-10-00210 |
| 10 | 12.6 | 15.24 | 17.7 | Fig. 3 | 299-PP-610-10-002101 |
| 12 | 15.2 | 15.24 | 10.1 | Fig. 3 | 299-PP-612-10-002101 |
| 14 | 17.7 | 15.24 | 10.1 | Fig. 3 | 299-PP-614-10-002101 |
| 16 | 20.1 | 15.24 | 17.7 | Fig. 3 | 299-PP-616-10-002101 |
| 18 | 22.8 | 15.24 | 17.7 | Fig. 3 | 299-PP-618-10-002101 |
| 20 | 25.3 | 15.24 | 17.7 | Fig. 3 | 299-PP-620-10-00210 |
| 22 | 27.8 | 15.24 | 17.7 | Fig. 3 | 299-PP-622-10-00210 |
| 24 | 30.4 | 15.24 | 17.7 | Fig. 3 | 299-PP-624-10-00210 |
| 26 | 33.0 | 15.24 | 17.7 | Fig. 3 | 299-PP-626-10-00210 |
| 28 | 35.5 | 15.24 | 17.7 | Fig. 3 | 299-PP-628-10-00210 |
| 30 | 38.0 | 15.24 | 17.7 | Fig. 3 | 299-PP-630-10-00210 |
| 32 | 40.6 | 15.24 | 17.7 | Fig. 3 | 299-PP-632-10-00210 |
| 36 | 45.7 | 15.24 | 17.7 | Fig. 3 | 299-PP-636-10-00210 |
| 40 | 50.6 | 15.24 | 17.7 | Fig. 3 | 299-PP-640-10-00210 |
| 48 | 61.0 | 15.24 | 17.7 | Fig. 3 | 299-PP-648-10-0021 |

## DUAL-IN-LINE PIN HEADERS <br> OPEN FRAME/ SOLDER TAIL

preci-dip
WWW.PRECIIIP.COM TEL+41 124210400 SALESePRECIIP.COM
-
TECHNICAL SPECIFICATIONS (For general specs, sEE PAGE 127)
Insulator Black glass filled polyester PCT-GF30-FR

MECHANICALLIFE Min. 100 cycles
Rated current
1 A
Min. $1^{10} 000$ Vems
ORDERING INFORMATION ROHS COMPLIANT PARTS
Pp PLating Code termination
10

ther plating on request (see page $1 /$ for plating specs).
or complete part number replace $X \ldots-\ldots x x$ with the code git
elow left.

available versions

| standaro header |  |
| :---: | :---: |
| 150-...-001101 | See Fig. 1 |
| 150-...-066101 | See Fig. 2 |
| 150-...-018101 | See Fig. 3 |
| interconnect header |  |
| 151-...-xxx101 | See Fig. 4 |
| CONTACT LENGTH L1 ( mm ) $\quad$ L2 $(\mathrm{mm})$ | xxx |
| 6.24 .7 | 003 |
| $8.4 \quad 3.55$ | 004 |
| 15.3 3.55 | 005 |
| $21.2 \quad 3.55$ | 016 |
| 27.4 3.55 | 017 |

Other lengths on request


## DUAL-IN-LINE PIN HEADERS

| insulator | Black glass filled polyester PCT-GF30-FR |
| :--- | :--- |
| FLAMMABLITY | UL94V-O |

$\begin{array}{ll}\text { CNNCCTING PIND } & 0.47 \mathrm{~mm} \\ \text { MECHANICALIIEE } & \text { Min. } 100 \text { cycles }\end{array}$
rated current
${ }_{1 \mathrm{~A}}^{\mathrm{Min} .} 100$ cycles
dielectric strength Min. 1 '000 Vems

| coplanarity |
| :--- |
| sMD TERMINATIONs |

Max. 0.10 mm
ORDERING INFORMATION ROHS COMPLIANT PARTS


| No. of poles | A | в | c | - | seE page 128 | order cooes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | 9.76 | Fig. 1 | 150-PP-210-00-10610 |
| 4 | 5.0 | 7.62 | 10.1 | 12.30 | Fig. 2 | 150-PP-304-00 |
| 6 | 7.6 | 7.62 | 10.1 | 12.30 | Fig. 3 | 150-PP-306-00-10 |
| 8 | 10.1 | 7.62 | 10.1 | 12.30 | Fig. 4 | 150-PP-308-00-1 |
| 10 | 12.6 | 7.62 | 10.1 | 12.30 | Fig. | 150-PP-310-00-1 |
| 12 | 15.2 | 7.62 | 10.1 | 12.30 | Fig. 6 | 150-PP-312-00-10 |
| 14 | 17.7 | 7.62 | 10.1 | 12.30 | Fig. 7 | 150-PP-314-00-10 |
| 16 | 20.3 | 7.62 | 10.1 | 12.30 | Fig. 8 | 150-PP-316-00-10 |
| 18 | 22.8 | 7.62 | 10.1 | 12.30 | Fig. 9 | 150-PP-318-00-10 |
| 20 | 25.3 | 7.62 | 10.1 | 12.30 | Fig. 10 | 150-PP-320-00-106 |
| 22 | 27.8 | 7.62 | 10.1 | 12.30 | Fig. 11 | 150-PP-322-00-10 |
| 24 | 30.4 | 7.62 | 10.1 | 12.30 | Fig. 12 | 150-PP-324-00-1 |
| 28 | 35.5 | 7.62 | 10.1 | 12.30 | Fig. 13 | 150-PP-328-00- |
| 20 | 25.4 | 10.16 | 12.6 | 14.84 | Fig. 14 | 150-PP-420-00-10 |
| 22 | 27.8 | 10.16 | 12.6 | 14.84 | Fig. 15 | 150-PP-422-00-10 |
| 24 | 30.4 | 10.16 | 12.6 | 14.84 | Fig. 16 | 150-PP-424-00-1061 |
| 28 | 35.5 | 10.16 | 12.6 | 14.84 | Fig. 17 | 150-PP-428-00-10 |
| 32 | 40.6 | 10.16 | 12.6 | 14.84 | Fig. 18 | 150-PP-432-00-10 |
| 24 | 30.5 | 15.24 | 17.7 | 19.92 | Fig. 20 | 150-PP-624-00-10 |
| 28 | 35.5 | 15.24 | 17.7 | 19.92 | Fig. 21 | 150-PP-628-00-10610 |
| 32 | 40.6 | 15.24 | 17.7 | 19.92 | Fig. 22 | 150-PP-632-00-10610 |
| 36 | 45.7 | 15.24 | 17.7 | 19.92 | Fig. 23 | 150-PP-636-00-10610 |
| 40 | 50.8 | 15.24 | 17.7 | 19.92 | Fig. 24 | 150-PP-640-00-10610 |
| 42 | 53.3 | 15.24 | 17.7 | 19.92 | Fig. 25 | 150-PP-642-00-10 |
| 48 | 60.9 | 15.24 | 17.7 | 19.92 | Fig. 26 | 150-PP-648-00-10 |

## DUAL-IN-LINE PIN HEADERS open frame / SURFACE MOUNT PICK AND PLACE

preci-dip
WWW.PRECIIIP.COM TEL+4132421 0400 SALESPPRECIIP.COM
Specially designed for reflow soldering including vapor phase with male contact pluggable into standard socket contacts.
TECHNICAL SPECIFICATIONS (FOR GENERAL SPECS, SEE PAGE 127)

| insulator | Black glass filled polyester PCT-GF30-FR |  |  |
| :---: | :---: | :---: | :---: |
| flammablity | UL.94V-0 |  |  |
| contact | Brass CuZn36Pb3 (C36000) |  |  |
| connecting ping | 0.47 mm |  | dob |
| mechanical life | Min. 100 cycles |  | d! |
| rated current | 1 A |  | - |
| DIELECTRICIC Strength | Min. $1^{1} 000 \mathrm{~V}_{\text {ens }}$ |  | ob 180 |
| smb teraninations | Max. 0.10 mm |  | cos |
| ORDERING INFORMATION ROHS COMPLIANT PARTS |  |  |  |
| pp plating Coot | termination | connecting pin |  |
| 10 | 0.25 mmgold | $0.25 \mu \mathrm{mgold}$ |  |
| 80 | Tin |  | Other plating on request (see page 178 for plating specs). |
| *only for 150-PP-X | ${ }_{\text {Tin }}$-00-106161 | 0.75 mmgold | Tape \& Reel packaging: |
|  | x-00-106161 |  | replace 161 by suffix 191 to part number. Other pin counts please consul. |
|  |  |  | Please consult www.precidip.com for availability size of tape, size of |


insulator pCb LAYout


## HEADER WITH FLOATING PIN TERMINATION



DUAL-IN-LINE PIN HEADERS
sLotted head /turret/solder cup / open frame / solder tall
preci-dip
WWW.PRECIIP.COM TEL +41324210400 SALESePRECIIP.COM

TECHNICAL SPECIFICATIONS (For General specs, see page 127)
$\begin{array}{ll}\text { INsuLATOR } & \begin{array}{l}\text { Black glass filled polyester PCT-GF30-FR } \\ \text { (Blackg glass filled polyamide PA66T-GF25-FR for }\end{array} \\ \end{array}$ (Black glass filled polyamide PA66T-GF25-FR for
$160-$ PP-XXX-00-001101/R1 and 160-PP-XXX-00-001101/R1 and
180-PP-XXX
UL.94V-0
Contact
ConNecting pine UL 94V-O
Brass CuZn36Pb3 (C36000)
mechanical life
Min. 100 cycles
1 A
rated current
ORDERING INFORMATION ROHS COMPLIANT PARTS

$$
\begin{array}{lll}
\text { PP PLating CODE } & \text { TERMNATION } & \text { Connecting pin } \\
10 & 0.25 \text { нm gold } & 0.25 \mu \mathrm{~m} \text { gold }
\end{array}
$$

$$
\begin{array}{lll}
10 & 0.25 \mu \mathrm{~m} \text { gold } & 0.25 \mu \mathrm{~m} \text { gold } \\
80 & \text { Tin } & \text { Tin }
\end{array}
$$



Fig. 1 Fig. 2


(9)
Fig. 3

| available versions |  |  |
| :---: | :---: | :---: |
| Replace 1XX | - ... in order code by |  |
| order coot | description | dimensions |
| 160 | Header with slotted head <br> to accept wires <br> or component leads | See Fig. 1 |
| 170 | Header with turret head | See Fig. 2 |
| 180 | Header with solder cup | See Fig. 3 |



| no. of poles | A | в | c | SEE PAGE 128 | order cooms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 12.6 | 5.08 | 7.6 | Fig. 1 | 1XX-PP-210-00-0011 |
| 4 | 5.0 | 7.62 | 10.1 | Fig. 2 | 1XX-PP-304-00-00110 |
| 6 | 7.6 | 7.62 | 10.1 | Fig. 3 | 1XX-PP-306-00-00110 |
| 8 | 10.1 | 7.62 | 10.1 | Fig. 4 | 1 XX-PP-308-00-001101 |
| 10 | 12.6 | 7.62 | 10.1 | Fig. 5 | 1 XX-PP-310-00-00110 |
| 12 | 15.2 | 7.62 | 10.1 | Fig. 6 | 1XX-PP-312-00-001101 |
| 14 | 17.7 | 7.62 | 10.1 | Fig. 7 | 1XX-PP-314-00-001101 |
| 16 | 20.3 | 7.62 | 10.1 | Fig. 8 | 1XX-PP-316-00-001101 |
| 18 | 22.8 | 7.62 | 10.1 | Fig. 9 | 1 XX-PP-318-00-001101 |
| 20 | 25.3 | 7.62 | 10.1 | Fig. 10 | 1XX-PP-320-00-00110 |
| 22 | 27.8 | 7.62 | 10.1 | Fig. 11 | 1XX-PP-322-00-001101 |
| 24 | 30.4 | 7.62 | 10.1 | Fig. 12 | 1XX-PP-324-00-00110 |
| 28 | 35.5 | 7.62 | 10.1 | Fig. 13 | 1XX-PP-328-00-00110 |
| 20 | 25.4 | 10.16 | 12.6 | Fig. 14 | 1XX-PP-420-00-001101 |
| 22 | 27.8 | 10.16 | 12.6 | Fig. 15 | 1XX-PP-422-00-001101 |
| 24 | 30.4 | 10.16 | 12.6 | Fig. 16 | 1XX-PP-424-00-00110 |
| 28 | 35.5 | 10.16 | 12.6 | Fig. 17 | 1XX-PP-428-00-00110 |
| 32 | 40.6 | 10.16 | 12.6 | Fig. 18 | 1XX-PP-432-00-001101 |
| 10 | 12.7 | 15.24 | 17.7 | Fig. 19 | 1XX-PP-610-00-001101 |
| 24 | 30.5 | 15.24 | 17.7 | Fig. 20 | 1XX-PP-624-00-001101 |
| 28 | 35.5 | 15.24 | 17.7 | Fig. 21 | 1XX-PP-628-00-00110 |
| 32 | 40.6 | 15.24 | 17.7 | Fig. 22 | 1XX-PP-632-00-00110 |
| 36 | 45.7 | 15.24 | 17.7 | Fig. 23 | 1 1XX-PP-636-00-00110 |
| 40 | 50.8 | 15.24 | 17.7 | Fig. 24 | 1XX-PP-640-00-00110 |
| 42 | 53.3 | 15.24 | 17.7 | Fig. 25 | 1XX-PP-642-00-00110 |
| 48 | 60.9 | 15.24 | 17.7 | Fig. 26 | 1XX-PP-648-00-00110 |
| 50 | 63.5 | 15.24 | 17.7 | Fig. 27 | 1XX-PP-650-00-00110 |
| 52 | 66.0 | 15.24 | 17.7 | Fig. 28 | 1XX-PP-652-00-00110 |
| 50 | 63.5 | 22.86 | 25.3 | Fig. 29 | 1XX-PP-950-00-00110 |
| 52 | 66.0 | 22.86 | 25.3 | Fig. 30 | 1XX-PP-952-00-00110 |
| 64 | 81.2 | 22.86 | 25.3 | Fig. 31 | 1XX-PP-964-00-001 |

TO SOCKETS SOLDERTALL/SURFACE MOUNT

WWW.PRECIIIP.COM TEL+4132421 0400 SALESePREEIIIP.COM

TECHNICAL SPECIFICATIONS (for general specs, se page 127)

| insulator | Black glass filled polyester PCT-GF30-FR |  |
| :---: | :---: | :---: |
| ғlammablity | UL.94V-0 |  |
| sleeve | Brass CuZn36Pb3 (C36000) |  |
| contact clip ( 4 Finger) | Beryllium copper (C17200) |  |
| accepted pino | 0.40 to 0.56 mm |  |
| forces |  |  |
| mechanical life | Min. 100 cycles |  |

$\begin{array}{ll}\text { Mechanical Lle } \\ \text { Rater curbent } & \text { Min. } 100 \text { cycles } \\ 1 \mathrm{~A}\end{array}$

ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { Pp Plating coos } & \text { Sleeve } & \text { CLIP } \\ 87 & \text { Tin } & \text { Flashgold }\end{array}$
Other plating on request (see page 178 for plating specs).
87
83
Flash gold


Fig. 1
SOCKETS, SOLDER TAIL, FIG.


SOCKETS, SMD MOUNT, FIG. 2

| Of | A | в | SEE | ORDER COOES |
| :---: | :---: | :---: | :---: | :---: |
| 3 | 10.0 | 5.08 | Fig. 3 | 917-PP-103-41-053101* |
| 4 | 10.0 | 5.08 | Fig. 4 | 917-PP-104-41-053101* |
| 8 | 10.0 | 5.08 | Fig. 5 | 917-PP-108-41-053101* |
| 8 | 10.0 | 5.84 | Fig. 6 | 917-PP-208-41-053101* |
| 10 | 10.0 | 5.84 | Fig. 7 | 917-PP-210-41-053101* |

*Tape \& Reel packaging:
eplace 101 by suffix 191 to part number. Other pin counts please consut.
ability size of tape, size of
el. number of components per reel and packing units.


## SPECIFIC APPLICATIONS

## SOCKETS

## preci-dip

OLDER TAIL/ STAGGERED DIL AND SIL SOCKETS

| Quad-in-line sockets and staggered (zig-zag) strips are suitable for IC's with staggered double row Dual-in-line type pin patterns. |  |
| :---: | :---: |
|  |  |


83 Flash gold
PPPLATING CODE SLEEVE


QUAD-IN-LINE SOCKET

| No. OF POLES | SEE | ORDER CODES |
| :--- | :--- | :--- |
| 64 | Fig. 1 | 110-PP-064-01-505101 |

Sote: Suitable for quad-in-line packages with $19.05 / 23.50 \mathrm{~mm}$ row pacing acc. to JEDEC MO-030.
uad-in-line socket layout requires $19.05 / 24.13 \mathrm{~mm}$ row spacing.


## 1000000

Fig. 3

## STAGGERED ZIG-ZAG STRIPS

no. of poles a c version see order codes

$20 \quad 26.57 \quad 5.0$| left | Fig. 2 | $410-\mathrm{PP}-220-10-001101$ |
| :--- | :--- | :--- | :--- |


|  | right | Fig. 3 | 410-PP-220-10-00210 |
| :---: | :---: | :---: | :---: |
| . 65 | 1 | Fig. | -PP |

$\begin{array}{llll}\text { right } & \begin{array}{l}\text { Fig. } 3 \\ \text { left }\end{array} & \begin{array}{l}\text { 4in-PP- } 224-10-00210 \\ \text { Fig. } 2\end{array} & 410-\text { PP- } 228-10-001101\end{array}$

| 36.73 | 5.0 | right | Fig. 3 | $410-\mathrm{PP}-228-10-002101$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

$30 \quad 39.27 \quad 5.0 \begin{array}{llll}\text { left } & \text { Fig. } 2 & 410-\text { PP- 230-10-001101 }\end{array}$


## SPECIFIC APPLICATIONS

## SOCKETS

GRYSTAL, RELAY AND DISPLAY SOCKETS / SOLDER TAIL

TECHNICAL SPECIFICATIONS (For general specs, SEE PaGe 127)
Insulator Black glass filled polyester PCT-GF30-FR
$\begin{array}{ll}\text { SLEEVE } & \text { Brass CIUZn36Pb3 (C36000) } \\ \text { contact }\end{array}$

$\begin{array}{lll}\text { (6 Finger) } & \text { (Series } 510 . . .50 \\ \text { AcCEPTED } \\ & 0.40 \text { to } 0.56 \mathrm{~mm}\end{array}$

(polished steel gauge 0.43 mm )
$(6$ finger: $\emptyset 0.46 \mathrm{~mm})$
ECHANICAL LIFE
Min. 100 cycles
rated current
1 A
Max. $10 \mathrm{~m} \Omega$
$\begin{array}{lll}\text { contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { OIELECTRIC strenath } & \text { Min. } 1000 \text { Ven }\end{array}$
ORDERING INFORMATION ROHS COMPLIANT PARTS

| pp plating coom | steeve | cLip |
| :---: | :---: | :---: |
| 87 | Tin | Flash gold |
| 83 | Tin | 0.75 rmgold |

Other plating on request (see page 178 for plating specs).


Fig. $11 \quad$ Fig. 12

## PARTIALLY EQUIPPED DIL SOCKETS

| NO. OF POLES | A | в | c | SEE | order codes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 / 6 | 12.6 | 5.08 | 7.6 | Fig. 1 | 110-PP-210-01-742101 |
| 10 / 8 | 12.6 | 5.08 | 7.6 | Fig. 2 | 110-PP-210-01-839101 |
| $12 / 6$ | 15.2 | 7.62 | 10.1 | Fig. 3 | 110-PP-312-01-680101 |
| $14 / 4$ | 17.7 | 7.62 | 10.1 | Fig. 4 | 110-PP-314-10-001101 |
| $14 / 8$ | 17.7 | 7.62 | 10.1 | Fig. 5 | 110-PP-314-10-002101 |
| $16 / 4$ | 20.3 | 7.62 | 10.1 | Fig. 6 | 110-PP-316-01-822101 |
| $16 / 8$ | 20.3 | 7.62 | 10.1 | Fig. 7 | 110-PP-316-01-931101 |
| $16 / 8$ | 20.3 | 7.62 | 10.1 | Fig. 8 | 110-PP-316-10-003101 |
| $28 / 14$ | 35.5 | 7.62 | 10.1 | Fig. 9 | 110-PP-328-01-777101 |
| 28 / 16 | 35.5 | 7.62 | 10.1 | Fig. 10 | 110-PP-328-01-762101 |

ther pin count and arrangement please consult

ISPLAY SOCKETS FOR 7 SEGMENT DISPLAYS (1 OR 2 DIGITS)

| No. OF POLES | SEE | ORDER CoDES |
| :--- | :--- | :--- |
| 10 | Fig. 11 | 510-PP-010-01-504101 |
| 18 | Fig. 12 | $510-$ PP-018-01-504101 |
| Please consult for other display sockets, single or multidigits |  |  |

lease consult for other display sockets, single or multidigits

## PGA/BGA/PLCC SOCKETS





## PGA / BGA / PLCC general specifications

preci-dip
WWW.PRECIIP.COM TEL+41324210400 SALESePRECIIP.COM
The values listed below are general specs applying for PRECI-DIP PGA, BGA and PLCC sockets. Please see individual catalog page for additiona and product specific technical data.
operating tempreature range $\quad-55 \ldots+125$
CLIMAtic Category (IEC)

- PRECI-DIP connectors designated «Series Preci-Dip Connector» are recognized by UL LLC and listed under «Connectors for Use in Data, Signal, Control and Power Applications», File Nr. E174442.

MECHANICAL CHARACTERISTICS
clip retention
in. 40 N (no displacement under axial force applied)
electrical characteristics
Insulation resistance betwen any two adacent contacts Min. $10^{\circ} 000 \mathrm{M} \Omega$ at 500 VAC
capacitance between any two adjacent contacts Max. 1 pF (PLCC max. 2 pF) self inductance per contact Max. 2 nH

## ENVIRONMENTAL CHARACTERISTICS

The sockets withstand the following environmental tests without mechanical

- Dry heat steady state IEC $60512-11-9.11 \mathrm{i} / 60068-2-2 . \mathrm{Bb}: 125^{\circ} \mathrm{C}$, 16 h
- Damp heat cyclic IEC 60512-11-12.11 / /60068-2-30.Db: 25/55 ${ }^{\circ} \mathrm{C}, 90-100 \% \mathrm{r}$ H 1 cycle of 24 h
-Cold steady state IEC 60512-11-10.11j / 60068-2-1. A: - $55^{\circ} \mathrm{C}, 2 \mathrm{~h}$
Thermal shock IEC 60512-11-4.11d/ $60068-2-14$.Na: $-55 / 125^{\circ} \mathrm{C}, 5$ cycles 30 min.
- Sinusoidal vibrations 1 EC 60512-6-4.6d
- Shock IEC $60512-6-3.6 \mathrm{c} / 60068-2-27$. Ea: $50 \mathrm{~g}, 11 \mathrm{~ms}, 3$ shocks in three axis

During the above two tests, no contact interruption $>50$ ns does appea.

- Solderability J-STD-002A, Test A, $245^{\circ} \mathrm{C}, 5 \mathrm{~s}$, solder alloy SnAg3.8Cuo. 7
- Resistance to soldering heat $\mathrm{J}-\mathrm{STD}-020 \mathrm{C}, 260^{\circ} \mathrm{C}, 20 \mathrm{~s}$
- Moisture sensitivity J-STD-020C level ?

SOLDERLESS COMPLIANT PRESS-FIT CHARACTERISTICS

- Press-in force: $\quad 90 \mathrm{~N}$ max. (at min. hole dia.) / 65 N typ.
- Push-out force: $\quad 30 \mathrm{~N}$ min. (at max. hole dia.)/ 50 N typ.

Push-out 3ra cycle: 20 N min. (at max. hole dia)
PCB HoLE dimensions
.2 .54 mm grid

- 2.54 mm grid Finished hole $\varnothing: 1+0.09 /-0.06 \mathrm{~mm}$
- Interstitial grid $\quad$ Drilled hole $\varnothing: 1.15 \pm 0.025 \mathrm{~mm}$
Finished hole $0: 0.7+0.09 /-0.06$

Finished hole $\varnothing: 0.7+0.09 /-0.06$
Drilled hole $\emptyset: 0.8 \pm 0.02 \mathrm{~mm}$
PCB HoLE PLATING
PCB surface fin
PCB surface finish Hole plating

- Tin
- Gopper over nickel $\quad \begin{array}{ll}\text { min. } 25 \mu \mathrm{~m} \text { copper } \\ 0.05-0.2 \mu \mathrm{~m} \text { gold over } 2.5-5 \mu \mathrm{~m} \text { nickel }\end{array}$
over min. $25 \mu \mathrm{~m}$ copper

PIN GRID ARRAY SOCKETS

Pin grid array sockets, standard solder version and surface mount with floating contacts.
TECHNICAL SPECIFICATIONS (For general specs, SEE PaGE 155)
Insulator Black glass filled polyester PCT-GF30-FR


UL.94V-O
sleeve Brass CuZn36Pb3 (C36000)

| Contact clip 6 F Finger |
| :--- |
| Acceptep pina |

Beryllium copper (C17200)
AcCEPTED PINQ
0.40 to 0.56 mm
mechanical life
0.7 typ. insertion
(polished steet gauge $\varnothing 0.46 \mathrm{Nm}$ typ. withdrawal
0.4 mm
${ }_{1}$ Min. 100 cycles
Rateductinent
contact resistance
Max. 10 ms
$\begin{array}{ll}\text { contact resistance } & \text { Max. } 10 \mathrm{~m} \Omega \\ \text { Dielectric strenath } & \text { Min. } 1^{\prime} 000 \text { V. }\end{array}$
ORDERING INFORMATION ROHS COMPLIANT PARTS
83 Flash gold

DIMENSIONS
0.75 m g gold

Calculate with $\mathrm{n} 1=$ number of contacts in one line and $\mathrm{n} 2=$
$A=n 1 \times 2.54$
$B=(n 1-1) \times 2.54$
$C=(n 2 \times 2.54)-0.40$


510-PP-NNN-XX-XXX10
PGA sockets with standard solder tails, length 3.17 mm .

ther plating on request (see page 178 for plating specs Replace NNN with the number of poles and XX-XXX with body size dayout numbers as indicated on pages 159 to 160 . .rample a $17 \times 17$ pin configuration with window and 168 contacts Options: please consult for availability PGA sockets with optional standoffs
PGA sockets with solder tails, length 4.2 mm
PGA sockets with low profile contacts and solder tails of 2.8 mm lengt PGA interconnect sockets with other contact lengths.


514-PP-NNN-XX-XXX117
PGA sockets with self-aligning SMD floating contacts. Contact diameter of soldering end 0.98 mm , allowing PCB pads as small as 1.1 mm .


PIN GRID ARRAY SOCKETS
preci-dip
WWW.PRECIIIP.COM TEL +41 1324210400 SALESe@PREIIIP.COM

TECHNICAL SPECIFICATIONS (FOR GENERAL SPECS, SEE PAGE 155)
InSULATOR Black glass filled polyester PCT-GF30-FR
sLeeve $\quad$ Bronze CuSn4Pb4Zn4 (C54400)
contact clip (6 FINGER) Beryllium copper (C17200)
acceppred pino
0.40 to 0.56 mm
forces

MECHanical LIFE
Min. 100 cycles
rated current
contact resistance Max. $10 \mathrm{~m} \Omega$
ORDERING INFORMATION ROHS COMPLIANT PARTS
pp plating cood sleeve
87
83
Flash gold
0.75 mm gold


## DIMENSIONS

Calculate with $\mathrm{n} 1=$ number of contacts in one line and $\mathrm{n} 2=$

Hole diameter $1(+0.09 /-0.06) \mathrm{mm}$ after metallization (Drill diameter $1.15 \pm 0.025 \mathrm{~mm}$.


546-PP-NNN-XX-XXX135
PGA sockets with solderless compliant press-fit terminations
for 2.1 to 3.2 mm PCB thickness.
Hole diameter $1(+0.09 /-0.06) \mathrm{mm}$ after metallization
(Drill diameter $1.15 \pm 0.025 \mathrm{~mm}$ ).


## PIN GRID ARRAY SOCKETS

Pin grid array sockets, interconnect pin and carriers with disposable plastic bod
TECHNICAL SPECIFICATIONS (for general specs, sem page 15)
Insulator Black glass filled polyester PCT-GF30-FR
Sleeve Brass CuZn36Pb3 (C36000)
contact clip ( 3 Finger) Beryllium copper ( (C17200)
accepted pino
40 to 0.56 mm
Mechanical Life Min. 100 cycles
rated current
contact resistance Max. $10 \mathrm{~m} \Omega$
Dielectric strength Min. 1 '000 Vras
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATING CODE TERMINATION CONNECTING PIN
10 (Serie 550) $0.25 \mu \mathrm{~m}$ gold $\quad 0.25 \mu \mathrm{~m}$ gold

80 (Serie 550) Tin Tin
$\begin{array}{lll}\text { PP PLating Coode } \\ 87 \text { (Serie } 614) & \text { SLEEVE } & \text { CLIP } \\ \text { Tin } & \text { Flash }\end{array}$
$\begin{array}{lll}87 \text { (Serie 644 } & \text { Th } & \text { Flash gold } \\ 83 & \text { Serie 614) } & \text { Tin }\end{array}$
DIMENSIONS
Calculate with $\mathrm{n} 1=$ number of contacts in one line and $\mathrm{n} 2=$
teristic size of the window
$A=n 1 \times 2.54$
$B=(n 1-1) \times 2.54$
$A=n \times 2.54$
$B=(n 1-1) \times 2.54$
$C=(n 2 \times 2.54) .40$
$B=(\ln 2 \times 2.54)-0.40$


PGA in
PGA interconnect sockets with through hole solder tails
and connecting pin $\varnothing 0.47 \mathrm{~mm}$.


614-PP-NNN-XX-XXX112
PGA carrier sockets with disposable plastic body.
Low profile ultra thin contacts with solder termination $\varnothing 0.95 \mathrm{~mm}$ that requires $\varnothing 1 \mathrm{~mm}$ holes in PCB.



## PIN GRID ARRAY SOCKETS

preci-dip

$18 \times 18$
$-241-18-07$

$-280-19-081 . . . . . .-281-19-081$.

$.-273-21-12$

PIN GRID ARRAY SOCKETS
INTERSTITIAL/SOLDERTALL/SURFACE MOUNT
PRESS-FITTERMINATIONS
preci-dip
WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePrRECIIIP.COM
Pin grid array sockets with interstitial contact rows, solder tails, surface mount floating contacts and solderless complian
TECHNICAL SPECIFICATIONS (For general specs, SEE Page 155)
Insulator Black glass filled polyester PCT-GF30-FP
$\begin{array}{ll}\text { sLemave } & \text { UL.94V-O } \\ \quad \text { Brass CuZn36Pb3 (C36000) }\end{array}$
 for press-fic
contact clip 6 Finger Beryllium copper
0.40 to 0.56 mm
Accepted pina
forces 0.4 N typ. insertion
(polished steel ligauge $\varnothing 0.46 \mathrm{Nmm}$ ) withdrawal
0.0 (polished steel gauge $\varnothing 0.46 \mathrm{~mm}$ )

## MECHANICALLIFE

Min. 100 cycles
Contact resistan
Max. $10 \mathrm{~m} \Omega$
DIELECTRIC STRENGTH Min. 700 VRM
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PP PLating COOE } & \begin{array}{l}\text { Sleve } \\ 87\end{array} & \begin{array}{l}\text { CLIP } \\ \text { Tin }\end{array}\end{array}$
$83 \quad$ Tin $0.75 \mu \mathrm{~m}$ gold

## dIMENSIONS


ther plating on request (see page 178 for plating specs. eeplace NNN with the number of poles and XX-XXX with body size hd layout numbers as indicated on pages 163 to 164.
or example a $19 \times 19$ pin configuration with window and 296 contacts shown on page 163 becomes 517-83-296-19-1311

Calculate with $n 1=$ number of contacts on the external row and $\mathrm{n} 2=$ GAA s
characteristic size of the window
$A=(n 1 \times 2.54)+1.30$
$A=(n 1-1) \times 2.54$
$C$
$C=(n 2 \times 2.54)-0.40$


517-PP-NNN-XX-XXX11
Interstitial PGA sockets with through hole solder tails, length 3.17 mm .


514-PP-NNN-XX-XXX154
Interstitial PGA sockets with self-aligning SMD floating contacts Contact diameter of soldering end 0.8 mm allowing $P C B$ pads with 0.9 mm diameter.


546-PP-NNN-XX-XXX147
Interstitial PGA sockets with solderless compliant press-fit
terminations for 1.2 to 2.5 mm PCB thickness.
(Drill diameter $0.85 \pm 0.025 \mathrm{~mm}$ ).


PIN GRID ARRAY SOCKETS
preci-dip
interstitial/interconnect pin and carrier
WWW.PRECIIIP.COM TEL +41 324210400 SALESePRECIIIP.COM
Pin grid array sockets with intersitial contact rows, interconnect pin and carriers with disposable plastic body.
TECHNICAL SPECIFICATIONS (for general specs, se page 15)
Back tass filled polyester PCT-GF30-FR
SLEEVE/PIN Brass CuZn36Pb3 (C36000)
CONTACT CLLP (3 FINGER) Beryllium copper (C17200)
ACCEPTED Ping $\quad 0.40$ to 0.56 mm
MECHANICALLIFE Min. 100 cycles
rated current
соntact resistance Max. $10 \mathrm{~m} \Omega$
dielectric strenath Min. 700 Vrus
ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATING CODE TERMINATION CONNECTING PIN
10 (Serie 550) $0.25 \mu \mathrm{~m}$ gold $\quad 0.25 \mu \mathrm{~m}$ gold
80 (Serie 550) Tin Tin
$\begin{array}{lll}\text { PP PLating CoDE } & \text { SLEEVE } & \text { CLLP } \\ 87 \text { (Serie 614) } & \text { Tin } & \text { Flash gold }\end{array}$
83 (Serie 614) Tin $\quad 0.75$ um gold
DIMENSIONS
Calculate with $n 1=$ number of contacts on the external row and $\mathrm{n} 2=$
characteristic size of the window
$A=(n 1 \times 2.54)+1.30$
$B=(n 1-1) \times 2.54$
$B=(n 1-1) \times 2.54$
$C=(n 2 \times 2.54)-0.40$

ther plating on request (see page 178 for plating specs). Replace NNN with the number of poles and $\mathbf{X X}$ - XXX with body size nd layout numbers as indicated on pages 163 to 164.
or example a $19 \times 19$ pin configuration with window and 296 contacts s shown on page 163 becomes $550-10-296-19-131135$.
ptions: please consult for availability PGA carrier sockets with other contacts. other contact lengths cartier soekets with other contacts.

## 550-PP-NNN-XX-XXX135

and connecting pin $\varnothing 0.44 \mathrm{~mm}$.


614-PP-NNN-XX-XXX144
Interstitial PGA carrier sockets with disposable plastic body and low profile, ultra-thin contacts with $\varnothing 0.84 \mathrm{~mm}$ that requires $\varnothing$ min 0.9 mm PCB holes.


PIN GRID ARRAY SOCKETS

$16 \times 16$
$\cdots-299-16-09$

$18 \times 18$
$293-18-101$

$18 \times 18$

..-296-19-131...


Due to technical progress, all information provided is subject to change without prior notice.


## MICRO PIN GRID ARRAY

Micro pin grid array sockets ( $\mu \mathrm{PGA}$ ) with contacts placed on 1.27 mm grid, solder tail, surface mount and interconnect pin.
TECHNICAL SPECIFICATIONS (FOR GENERAL sPECs, SEE PAGE 155)

## minate FR4

mounaror
sLeeve/fin Brass CuZn36Pb3 (C3600)
CONTACT CLIP ( 6 INGER) Beryllium copper (C17200
acoepted pino 30 to 0.35 mm

MECHanical LIFE
0. $2 \mathrm{~N} \mathrm{typ}$.insertion
(polished steel gauge $\varnothing$
$\varnothing .3 \mathrm{~mm}$ )
0.15 N typ. withdrawal
rateo current
Min. 100 cycles
contactresistance Max. 10 ms
Dielectric strenath Min. 500 Vrus
ORDERING INFORMATION ROHS COMPLIANT PARTS


Other plating on request (see page 178 for plating specs).
$\begin{array}{lll}\text { 77 (Serie 518) } & \begin{array}{l}\text { Flash gold } \\ \text { TEP PLating Coode }\end{array} & \begin{array}{l}\text { Flash gold } \\ \text { TERMNation }\end{array}\end{array}$
Replace $\mathbf{N N N}$ with the number of poles and $\mathbf{X X}$-XXX with body size
nd layout numbers as indicated on page 168.
example a $26 \times 26$ pin configuration with window and 478 contacts
ptions: please consult for availability

## DIMENSIONS

## Catate $=$ number of contacts in one line and $\mathrm{n} 2=$

characteristic size of the window
$A=(n 1 \times 1.27)+1.27$
$B=(n 1-1) \times 1.27$
$B=(n 1-1) \times 1.27$
$\mathrm{B}=(\mathrm{n} 2 \times 1.27)-0.40$


518-77-NNNMXX-XXX105
PGA sockets 1.27 mm grid with through hole solder tails length 2.79 mm .


518-77-NNNMXX-XXX106
PGA sockets 1.27 mm grid, surface mount.
Contact diameter of soldering end 0.31 mm allowing PCB pads with 0.4 mm diameter.

## 558-10-NNNMXX-XXX10

PGA 1.27 mm grid, interconnect sockets with through hole solder tail and
connecting in $\varnothing 0.31 \mathrm{~mm}$.


## BALL GRID ARRAY SOCKETS

TECHNICAL SPECIFICATIONS (For GENERAL Specs, see Page 155)
sLEEVE/PIN Brass CuZn36Pb3 (C36000)
Contactelp (4 Finger) Beryllium copper (C17200)
ACCEPTED PIND $\quad 0.36$ to 0.46 mm
MECHANICAL LIFE Min. 100 cycles
rated current
contact resistance Max. $10 \mathrm{~m} \Omega$
ORDERING INFORMATION ROHS COMPLIANT PARTS

| Phlancouel | Steve |  | Other plating on request (see page 178 for plating specs) |
| :---: | :---: | :---: | :---: |
| 83 (Serie 514) | ${ }_{\text {Tin }}$ | Flash gold | Replace $\mathbf{N N N}$ with the number of poles and $\mathbf{X X}$ - $\mathbf{X X X}$ with body size |
| -ating | terminat | connecting pin | and layout numbers as indicated on page 168. |

$\begin{array}{lll}83 \text { (Serie 514) } & \begin{array}{l}\text { Tin } \\ \text { PP PLating coin }\end{array} & \begin{array}{l}0.75 \mu \mathrm{~m} \text { gold } \\ \text { TERMINation }\end{array} \\ \text { connecting Pin }\end{array}$
10 (Serie 550$) \quad 0.25 \mu \mathrm{~m}$ gold $\quad 0.25 \mu \mathrm{~m}$ gold
hd layout numbers as indicated on page 168 .
For example a $20 \times 20$ pin configuration with 256

DIMENSIONS
$A=(\operatorname{nn} \times 1.27)+1.27$
$B=(n 1-1) \times 1.27$
(7ater
for adapters
$\mathrm{A}=($ n1 11.27$)+3.27$
$B=(n 1-1) \times 1.27$


Same foets 1.27 mm grid with self-aligning surface mount floating contacts.
Same foot print as the BGA device, to mate with the corresponding adapter.


550-10-NNNMXX-XXX166
BGA adapter 1.27 mm grid pluggable into the corresponding socket.
onnecting pin $\varnothing 0.42 \mathrm{~mm}$.
BGA device is SMD soldered on the solder pads.


BGA socket and adapter systems are the reliable solution to make BGAs pluggable:
-he BGA socket Series 514 (1) is soldered to the PCB in place of the BGA device and sing the same footprint
he BGA device (3) is soldered to the adapter Series 550 (2)
the BGA + adapter sub-assembly is plugged into the socket


BALL GRID ARRAY SOCKETS
preci-dip
WWW.PRECIIIP.COM TEL+41 $324210400 \quad$ SALESePRECIIIP.COM
TECHNICAL SPECIFICATIONS
TECHNICAL SPECIFICATION (FOR SIEPAL SPECS, SEE PAGE 155)
InsuLaror
FLAMMABLITY $\quad U L$ lass-epoxy laminate
FR4
contact Brass CuZn36Pb3 (C36000)
Mechanical llfe Min. 100 cycles
rated curbent
Rated current
1 A

| Contact resistance | Max. $10 \mathrm{~m} \Omega$ |
| :--- | :--- |
| Dile |  |

ORDERING INFORMATION ROHS COMPLIANT PARTS
PP PLATING CODE TERMNATION CONNECTNG PIN

ther plating on request (see page 178 for plating specs).
epplace $\mathbf{N N N}$ with the number of poles and $\mathbf{X X}$-XXX with body siz nd layout numbers as indicated on page 168 .
or example a $20 \times 20$ pin configuration with 256 contacts as shown

## dIMENSIONS

Calculate with n1 = number of contacts in one line


550-0-NNNMXXXX
BGA interconnect sockets 1.27 mm grid, through hole solder tails and connecting pin $\varnothing 0.40 \mathrm{~mm}$.


558-10-NNNMXX-XXX104
BGA interconnect sockets 1.27 mm grid, with surface mount terminations
and connecting pin $\varnothing 0.41 \mathrm{~mm}$.


preci-dip
WWW.PRECIIP.COM TEL+4132421 0400 SALESSPREEIIP.CoM

TECHNICAL SPECIFICATIONS (For general specs, seE Page 155)
insulator
sLeEVE / PIN
contact clip (3 Finge
accepted pin
forces MECHANICALLIFE
Rated curbent Rated current
contact resistance
Dielectric strenctu Max. $10 \mathrm{~m} \Omega$
ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PP PLATNG CoDE } & \text { SLEEVE } & \text { CLIP } \\ 11 \text { (Serie 514) } & 0.25 \mu \mathrm{~m} \text { gold } & 0.25 \mu \mathrm{~m} \text { gold }\end{array}$


DIMENSIONS
Calculate with n $1=$ number of contacts in one line


54-1-NNNXX-XXX
BGA sockets 1 mm grid, surface mount.
Same foot print as the BGA device to mate with the corresponding adapter.


558-10-NNNPXX-XXX103
BGA interconnect sockets 1 mm grid with surface mount terminations



## BALL/PIN GRID ARRAY

preci-dip
WWW.PRECIIIP.COM TEL+4132421 0400 SALESe@PRECIIIP.CoM
If the desired footprint does not exist in this catalogue, please photocopy this page, complete it and send it to your local PRECI-DIP distributor.


SOCKETS


ORDERING INFORMATION
Type of socket (see opposite page)
lating code PP (see opposite page)


```
\[
\begin{aligned}
& \text { Standard } 2.54 \text { n } \\
& \text { Interstitial }
\end{aligned}
\]
Interstitial
1.27 mm
```



Quantity

XAMPLE

Fill in the position


## SOCKETS FOR PLASTIC LEADED

 CHIP CARRIERS (PLCC)
## preci-dip

smt terminations
Series 540 PLCC sockets with SMT terminations come with square sizes for IC-packages according to JEDECM0-04/ and rectangular size (32) according
to JEDEC MO-052. low profile. TECHNICAL SPECIFICATIONS (for general specs, se page 155)
TECHNICAL SPECIFICATIONS


ORDERING INFORMATION ROHS COMPLIANT PARTS
$\begin{array}{lll}\text { PP PLating CODE } & \begin{array}{l}\text { Termination } \\ \text { Tin }\end{array} & \begin{array}{l}\text { Conttact } \\ \text { Tin }\end{array} \\ & \end{array}$

ption: parts with positioning pegs add suffix -2 to part number (only available for No. of poles 32 and 68 ). Tape \& Reel packaging:
Pease consult www.precidip.com for availability size of tape, size of
eel, number of components per reel and packing units.

$\begin{array}{lllllll}20 & 14.86 & 7.02 & 9.20 & 4.60 & 16.20 & 540-88-020-17-400\end{array}$ $28 \quad 17.34 \quad 9.50 \quad 11.764 .60 \quad 19.70 \quad 540-88-028-17-400$ $33^{*} \quad \begin{array}{llllll}16.95 / 9.40 / 11.60 / 3.80 \\ 19.50 & 11.90 & 14.20 & 22.00 & 540-88-032-17-400\end{array}$ $44 \quad \begin{array}{llllllll}19.50 & 11.90 & 14.20 & \text { 22.42 } & 14.50 & 16.70 & 4.60 & 27.00 \\ 540-88-044-17-400\end{array}$ $\begin{array}{llllll}19.50 \\ 22.42 & 14.50 & 16.70 & 4.60 & 27.00 & 540-88-044-17-400\end{array}$ $\begin{array}{lllll}25.40 & 17.24 & 19.46 & 4.60 & 30.80 \\ 540-88-052-17-400 \\ 30.54 & 22.26 & 24.40 & 4.60 & 37.65 \\ 540-88-068-17-400\end{array}$ $84 \begin{array}{llllll}68 & 35.56 & 27.34 & 29.58 & 4.60 & 45.10 \\ 540-88-084-17-400\end{array}$

PCB LAYOUT SERIES 540, SMD TYPES


## SOCKETS FOR PLASTIC LEADED

## CHIP CARRIERS (PLCC)

preci-dip
WWW.PRECIIP.COM TEL +41324210400 SALESePREEIIIP.com

## solder tall

Sel
TECHNICAL SPECIFICATIONS (For general specs, se page 155)
InsULATOR Glass filled thermoplastic PPS-GF40-FR
contact UL94V-O $\quad$ Phosphor bronze
mechanical life Min. 25 cycles
rated current
${ }_{1}^{1 \mathrm{~A}} \mathrm{Max} .30 \mathrm{~m} \Omega^{2}$
$\begin{array}{lll}\text { Contact resistance } & \text { Max. } 30 \mathrm{~m} \Omega \\ \text { DiELECTRIC STRENGTH } & \text { Min. } 500 \text { Vems }\end{array}$

capacitance Max. 1 pF
ORDERING INFORMATION ROHS COMPLIANT PARTS
pp plating Code termination
contact

$\begin{array}{lllllllll}\substack{\text { NoO.OF } \\ \text { POLES }} & \text { A1 } & \text { A2 } & \text { B1 } & \text { B2 } & \text { C1 } & \text { C2 } & \text { D } & \text { ORDERCODES }\end{array}$
$\begin{array}{lllllllll}28 & 18.20 & 18.20 & 7.62 & 7.62 & 11.91 & 11.91 & 22.11 & 540-88-028-24-008 \\ 32 * & 18.20 & 20.74 & 7.62 & 10.16 & 11.91 & 14.45 & 23.90 & 540-88-082-24-008\end{array}$
$\begin{array}{lllllllll}32^{*} & 18.20 & 20.74 & 7.62 & 10.16 & 11.91 & 14.45 & 23.90 & 540-88-032-24-008 \\ 44 & 23.28 & 23.28 & 12.70 & 12.70 & 16.99 & 16.99 & 29.23 & 50-88-04-04-24-008\end{array}$ $\begin{array}{lllllll}52 & 25.82 & 25.82 & 15.24 & 15.24 & 19.53 & 19.53 \\ 68 & 32.85 & 540-88-052-24-008 \\ 68.090 & 30.90 & 20.32 & 20.32 & 24.61 & 24.61 & 40.03 \\ 540-88-068-24-008\end{array}$ $\begin{array}{lllllllll}68 & 30.90 & 30.90 & 20.32 & 20.32 & 24.61 & 24.61 & 40.03 & 540-88-068-24-008 \\ 84 & 35.98 & 35.98 & 25.40 & 25.40 & 29.69 & 29.69 & 4721 & 540-88-084-24-008\end{array}$

PCB HOLE PATTERNS SERIES 540, THRU-HOLE TYPES



## CONTACTS




## CONTACT TECHNOLOGY

preci-dip
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INTRODUCTION
PRECI-DIP, a world wide leading manufacturer of precision machined contacts and related interconnect components is continuously improving its ability to design innovative contacts. This catalog provides general technical information on PRECI-DIP contacts. It should help potential users
make the best technical choice for a given application.

TO FIND INDIVIDUAL SPECIFICATIONS OF STANDARD CONTACTS, PLEASE CONSULT OUR SEARCH ENGINE AT WWW.PRECIDIP.COM
If no adequate solution can be found there, please contact us, only a selected choice of all existing contacts is displayed. Further, PRECI-DIP will be pleased to offer full support to design and manufacture customer specific contacts.

## THREE MAIN GROUPS OF CONTACT PRODUCTS ARE DESCRIBED AND OFFERED

- Spring-loaded
- Socket contacts also called female contacts or pin receptacles

All of these can be manufactured with different type of terminations:
PCB Solder tall
smotermination


THIS CATALOG SECTION CONTAINS GENERAL TECHNICAL INFORMATION ON PRECI-DIP CONTACTS

|  | PAGE |  | PAGE |
| :--- | :--- | :--- | :--- |
|  | 177 | Spring-loaded contacts | 180 |
| Socket contact selector | 178 | MIL contacts | 182 |
| General technical specifications | 179 | Data sheet clip contacts | 185 |
| Socket + pin contacts |  |  |  |

## CONTACT TECHNOLOGY <br> SOCKET CONTACT SELECTOR

preci-dip

## CONTACT SELECTOR BY MATING PIN DIAMETER

The mating pin diameter range and insertion characteristics of socket contacts are identified with the clip code, given by the last 4 digits of the
part number. part number

## Tosearcha sutabe socket contact to mate with aknown pil

With the graph on the right, find the group code corresponding to the mating pin diameter. In the table below right, search the clip codes corresponding to the group and the page number

All clip codes from the sam group are interchangeable within a given contact body This allows for contacts with a larger range of insertion
characteristics to fulfill the requirements of special applications


2TO SEARCHTHE CHARACTERISTICS OF A KNown CLIP coob
Find the corresponding page
number for each clip code data
sheet in the table on the right side

| group | CLIP CODE | TYP. INSERTION FORCE [N] |  | ${ }_{\text {PAEE }}^{\text {SAEE }}$ |
| :---: | :---: | :---: | :---: | :---: |
| A | 0110 | 0.25 | 0.38 | 185 |
| B | 5410 | 0.20 | 0.30 | 185 |
| c | 1110 | 1.0 | 0.43 | 185 |
|  | 2110 | 0.8 | 0.46 | 186 |
|  | 0510 | 0.5 | 0.52 | 186 |
| D | 3020 | 0.45 | 0.30 | 186 |
|  | 1210 | 3.0 | 0.43 | 187 |
|  | 3010 | 2.0 | 0.43 | 187 |
|  | 2210 | 0.6 | 0.46 | 187 |
|  | 3110 | 0.7 | 0.46 | 188 |
|  | 3130 | 0.4 | 0.46 | 188 |
|  | 3160 | 0.2 | 0.46 | 188 |
|  | 5210 | 0.56 | 0.76 | 189 |
| E | 1410 | 1.5 | 0.78 | 189 |
| F | 1610 | 3.5 | 0.76 | 189 |
|  | 0610 | 1.5 | 0.76 | 190 |
|  | 4710 | 0.4 | 0.76 | 190 |
| G | 1810 | 2.0 | 1.04 | 190 |
| H | 3410 | 4.0 | 1.04 | 191 |
| I | 0210 | 5.0 | 1.15 | 191 |
|  | 2710 | 2.2 | 1.15 | 191 |
| J | 4910 | 3.0 | 1.61 | 192 |
| k | 1310 | 1.3 | 1.27 | 192 |
|  | 2310 | 3.0 | 1.30 | 192 |
|  | 3920 | 2.5 | 1.61 | 193 |
| L | 0710 | 4.0 | 1.88 | 193 |
| M | 4010 | 10.0 | 2.41 | 193 |

## CONTACT TECHNOLOGY <br> Eneral specifications

## GENERAL TECHNICAL SPECIFICATIONS

The contacts are manufactured by high speed turning process with, if necessary, additional secondary machining operation for examp
lots or solder cups. The preferred diameter range lies between 1 and 6 mm and contact length up to 40 mm are standa

## materials

CONTaCt booles

- Brass CuZn36Pb3, С36000
- Brass CuZn35Pb2, C34500 for contacts with crimp terminations
- Bronze CuSn4Pb4Zn4, C54400 for contacts with compliant press-fit terminations
- $\begin{array}{r}\text { clips } \\ \text { Bery }\end{array}$
um copper alloy C17200
springs
-Stainless steel X12CrNi177 mat. Nr 1.4310, DIN 17224
hooos
-Stainless steel AISI 305
All these materials are compliant with RoHS requirements. Lead content of copper alloys is less than $4 \%$
in accordance with Exception 6 of the RoHS directive 2002/95/CE.


## PLATING

.

## underplating

el (Ni) electro-deposited, acc. to SAE-AMS-QQ-N-290

- Electroless nickel phosphorus alloy for max. corrosion and wear resistance and for lowest magnetic permeability
(plating suffix N)
FINISH
- Gold (Au) acc. to ASTM B488, type II C, plating codes $1(0.25 \mu \mathrm{~m}), 3(0.75 \mu \mathrm{~m}), 4(1.27 \mathrm{\mu m})$ and 7 (gold flash
- Tin (pure tin Sn), plating code 8 , standard tin plating with excellent solderability, RoHS compliant
- Tin-Lead (SnPb90/10) acc. to ASTM B545, plating code 9. This plating is not RoHS compliant.

ELECTRICAL AND MECHANICAL CHARACTERISTICS
See individual data pages

## ENVIRONMENTAL CHARACTERISTICS

contacts withstands follown in inenmental tests

- Dry heat steady state IEC $60512-11-9.11 \mathrm{i} / 60068-2-2$. Bb: $125^{\circ} \mathrm{C}, 16 \mathrm{~h}$

-Thermal shock IEC $60512-11-4.11 \mathrm{~d} / 60068-2-14$.Na: $-55 / 125^{\circ} \mathrm{C}, 5$ cycles 30 min
- Sinusoidal vibrations IEC 60512-6-4.6d / 60068-2-6.Fc: 10 to $500 \mathrm{~Hz}, 10$ g, 1 octave/min

10 cycles for each axis
-Shock IEC 60512-6-3.6c / 60068-2-27.Ea: 50 o. 11 ms, 3 shocks in three axis
.
-Solderability J-STD-002C, Test AT, $24^{\circ} \mathrm{C}, 5 \mathrm{~s}$, solder alloy SnAg3.8Cu0.7

- Resistance to corrosion:

Sulfur dioxide (SO2) test IEC $60068-2-42 \mathrm{Kc} \cdot 96 \mathrm{~h}$ at $25 \mathrm{pmpsO} 25^{\circ} \mathrm{C}, 75 \% \mathrm{rH}$
3) Hydrogen sulfide (H2S) test IEC $60068-2-43 . \mathrm{Kd}$ : 96 h at 12 ppm H2s. $25^{\circ} \mathrm{C}, 75 \% \mathrm{rH}$

\section*{CONTACT TECHNOLOGY

## preci-dip

## cocketand pincontact

## cocketand pincontact

## SOCKET CONTACTS

The PRECI-DIP technology for socket contacts is based on a two-parts design:

- Contact body
- Multi-finger contact spring called clip

These socket contacts with clip are compatible with all existing machined
and stamped mating pin contacts of same size


CONTACT BODIES AND CLIPS ARE MANUFACTURED AND PLATED SEPARATELY with additional secondary machining operation if required.
The clip are stamped and formed from sheet material. Depending on size and characteristics, the clips are designed with 3 to 8 contac
finger. The choice of heat treated beryllium copper alloy gives the best possible combination of mechanical and electrical properties for use in electrical contacts. More than 40 clips are pre-tooled, covering a mating pin diameter range from 0.25 to 2.5 mm . They ca accept square or rectangular pin.

The clip is assembled into the contact body by press-fit on automatic equipment including on-line inspections.

## MAIN ADVANTAGES OF THE TECHNOLOGY

-The combination of existing standard clip with specific contact body gives a flexibility unknown with traditional contact design

Production of machined specific contact bodies is cost effective starting at medium sized quantities

RECI-DIP automatic high speed contact assembly lines are optimized for large production runs but also for smaller series

## PIN CONTACTS

recision screw-mached pincolts are the best choice for many
applications:

- High quality, low dimensional tolerances

Best surface of the mating end for applications requiring high
Wide range of dim

- Length from 3 to 50 mm
- Diameter from 0.25 to 6 mm

Low initial (tooling) costs and attractive prices for medium and high - volume production due to manufacturing on high speed automatic lathes

With its own plating unit, PRECI-DIP offers single source services for finished contacts

MECHANICAL CHARACTERISTICS

- Insertion characteristics

Insertion and withdrawal force for standard clips are displayed on the corresponding data sheets. The values are measured with polished steel gauges with spherical tip and are typical average selection of best suited clip for a given application.

Compliancy
Each clip is able to accept a broad range of mating pins. This ability is called «compliancy». The compliancy factor $\Delta$ specifies the resulting operating range after insertion of the largest permissible mating pin.

## Clip retention

This is the force needed to pull-out the press-fited clip from its contact body. Clip retention is greater than 40 N .

- Mechanical life

The mechanical life expectancy is dependent on the surface
smoothness and diameter of the mating pin and on the plating. For some applications, more than 1000 mating cycles are possible.

## Lectrical Characteristics

The given currents are for one mated combination of socket and
pin contact, in free air and for $10^{\circ} \mathrm{C}$ temperature rise.

## BI-BLOC PIN CONTACTS

PRECI-DIP offers «selective plated» bi-bloc pin contact with the hig quality of machined contact and the advantages of selective plating These contacts are made from 2 parts: the contact body with separately and assembled after plating.


## CONTACT TECHNOLOGY

## SPRING-LOADED CONTACTS

Spring-loaded contacts were initially designed since 1995 for mobile phones. The application requires miniature, reliable, contacts with very high mating cycles count at low cost.
The basic design of spring-loaded contact with hollow pista
consists of a contact body or barrel, a contact member or piston and an helical compression spring. The piston is retained in the barrel by a crimp.
The electrical contact is established by pressure between the piston and a fixed, flat, conducting area of the opposite part.
Based on this initial model, new contacts with improved characteristics were designed:

- Low resistance spring-loaded contacts with shaped piston

High-reliable contacts with clip. This contact design is protected by
international patents

## ChARACTERISTICS

## ain advantages

- Many types of terminations available (see page Introduction)
- Small dimensions for use in applications with limited space (min. contact height 3 mm , min. contact diameter 1 mm )
very good resistance to shocks and vibrations
Best adapted where conventional connection solutions cannot
satisfy the application requirements:
In case of important positioning tolerances of the connectors
or compensation of errors of parallelism and flatness
mating movement
or connections with sliding mating action (push and lock)

| CHARACTERISTICS |  |  |  | ontacts CLIPIN-LINE DESIGN |
| :---: | :---: | :---: | :---: | :---: |
| ENVIRONMENTAL |  |  | patented | patented |
| Operating temp. range |  | $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ (music wire) $/+125^{\circ} \mathrm{C}$ | ess steel) |  |
| MATERIALS (RoHS-compliant) |  |  |  |  |
| Piston |  | Gold plated machined brass |  |  |
| Barrel |  | Gold plated machined brass |  |  |
| Spring |  | Gold plated music wire / Stainless steel |  |  |
| Clip | - | - | Gold p | C17200 |
| MECHANICAL |  |  |  |  |
| Min. diameter | 1.1 mm | 1.5 mm | 1.8 mm | 0.8 mm |
| Min. initial height | 2.5 mm | 5 mm | 4.5 mm | 9 mm |
| Travel / height ratio | Max. 0.3 | Max. 0.2 | Max. 0.2 | Max. 0.15 |
| Max. travel (stroke) | 2 mm | 2 mm |  |  |
| Min. initial spring force | 0.2 N | 0.2 N |  |  |
| Mechanical life* | 100'000 cycles | $50^{\prime} 000$ cycles |  |  |
| ELECTRICAL |  |  |  |  |
| Contact resistance** ${ }_{\text {ax }}$ | Max. $15 \mathrm{~m} \Omega$ | Max. $10 \mathrm{~m} \Omega$ |  | ak |



CONTACT TECHNOLOGY
preci-dip
41324210400 SALES@PRECIIP.CON
DOUBLE-SIDED SPRING-LOADED CONNECTORS connection (Fig.1).

availability
Double-sided contacts have been designed to be assembled on custom design connecto
into their own assembiles
-conctacts with outside diameter 1.8 mm with min. 4.5 m

- distance (D) between connecting surfaces (see Fig. 3).
-contacts with min. 0.8 mm outside diameter and min. 8 mm
- long stroke and high contact pressure high reliability clip contacts.

Please consult for more information.
preci-dip
CONTACT TECHNOLOGY

INTRODUCTION
PRECI-DIP has tapped its unique expertise and tested know-how
to develop new ML socket contacts based on the clip technology.
Two socket contact technologies are available
hooded contacts using the reversed clip and hoodless contacts using the Eagle Grip clip.
These contacts have successfully passed all the qualification
tests according to AS3902s and are listed on the Q OPL .
MIL CONTACTS

We are also manufacturing the corresponding
precision-machined pin contacts.

HOODED CONTACTS USING THE REVERSED CLIP PATENTED TECHNOLOGY

## CONTACT DESIGN

The contact consists of three parts, separately manufactured
and made of different base materials. This design allows to optimise the performance and to select the most appropriate
production process individually:
Contact body made of machined brass
Reversed clip made
Protection hood made of deep-drawn stainless
Separate electroplating processes of body and clip allow the best
carried out onder ratio. The assembly of the three parts is the
Cevried out on dedicated, fully automatic contacts are presently lines. Reversed clip contacts are presently available in size 12,16 ,
PRECI-DIP, is protected by international patents.

## advantages and characteristics

In comparison with the traditional slotted
contact body the reversed clip design ha
several advantages:


Smaller difference between insertion
Reduced dispersion of the force values
dacea dispersion of the force values
to 6 or 8 contact fingers


Reversed clip
available
avaliable
in sizes $12,16,20,22$
preci-dip
00 Saleseprecilip.com

位 PATENTED TECHNOLOGY

## contact design

- The hoodless contact consists of two parts: the contact body and the clip (separate pressure member) are made from differe The high-speed screw machined contact body is made of bras. The use of quality crimping brass renders the annealing operation unnecessary.
The precision stamped and formed Eagle Grip clip is made
eparate electroplating processes of the body and clip offer
the best cost-performance ratio.
CONTACT TECHNOLOGY
mil contacts

the body and dlip assembly.
The clio is precisely positioned in
in place between a shoulder and the crimp lip.
-line mechanical check is carried out on the assembly machine
Eagle Grip clip hood less contacts are presently available
in sizes 16,20 and 22.
This PRECI-DIP proprietary technology is protected by
international patents.

ADVANTAGES AND CHARACTERISTICS
-piece contact without hood
Fully automatic assembly process with in-line mechanical check
Localized finish: body and clip are plated separately

- Precision rolling surface finish in the contact area
- Better contact redundancy thanks to 3 or 4 contact fingers

Repeatability in the manufacturing process of the clip (tooling and stamping)
Limited difference between insertion and extraction mating forces

- Narrow range of the force values
site
Swiss precision technology


Laterial
Sverall Finish $\quad$ GoCu Cld plate acc. to ASTM B488, Typell. C, min. 1.27 um Au over $2.5 \mu \mathrm{~m} \mathrm{Ni}$

TECHNICAL SPECIFICATION

| materal | Machined brass C345 |
| :---: | :---: |
| ovERALLFINISH | Gold plate acc. to ASTM B488, | Gold plate acc. to ASTM B488, Type II, C, over $2.5 \mu \mathrm{~m} \mathrm{~N}$

## CONTACT TECHNOLOGY mil Contacts

preci-dip

LIST OF PART NUMBERS QUALIFIED PRODUCT LISTED

| SOCKET CONTACTS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| CONNECTOR TYPEACC. TO | MILP/N | REVERSED/EAGLE GRIP CLIP | PRECI-DIP P/N | size |
| MLL-DTL-38999 Series I, II, IV | AS/M39029/56-348 | Reversed | 83011-1P4-7010-B1 | \#22D |
|  |  | Eagle Grip | 83051-784-6010-01 |  |
|  | AS/M39029/56-351 | Reversed | 83021-1P4-7110-B1 | \#20 |
|  |  | Eagle Grip | 83061-784-6110-01 |  |
|  | AS/M39029/56-352 | Reversed | 83031-1P4-7210-B1 | \#16 |
|  |  | Eagle Grip | 83071-784-6210-01 |  |
|  | AS/M39029/56-353 | Reversed | 83041-1P4-7310-B1 | \#12 |
| MIL-DTL-38999 Series II | AS/M39029/57-354 | Reversed | 83101-784-7010-B1 | \#22D |
| MIL-DTL-24308 |  | Eagle Grip | 83091-784-6010-01 |  |
| MIL-DTL-55302 |  |  |  |  |
| MLL-DTL-83733 |  |  |  |  |
| MIL-DTL-24308 | AS/M39029/63-368 | Eagle Grip | 83121-784-6110-01 | \#20 |
| MLL-DTL-26482 Series 2 | AS/M39029/5-115 | Reversed | 83181-704-7110-B1 | \#20 |
| AS 81703 Series 3 |  | Eagle Grip | 83131-784-6110-01 |  |
| MLL-DTL-83723 Series 3 | AS/M39029/5-116 | Reversed | 83191-784-7210-B1 | \#16 |
| MLL-DTL-83733 |  | Eagle Grip | 83141-784-6210-01 |  |
|  | AS/M39029/5-118 | Reversed | 83151-784-7310-B1 | \#12 |
| MLL-DTL-26482 Series 1 | AS/M39029/32-259 | Reversed | 83161-704-7110-B1 | \#20 |
|  |  | Eagle Grip | 83111-784-6110-01 |  |
| MIL-DTL-26482 Series 1 | AS/M39029/32-248 | Reversed | 83171-784-7210-B1 | \#16 |
| ML-DTL-26500 |  | Eagle Grip | 83081-784-6210-01 |  |
| PIN CONTACTS |  |  |  |  |
| CONNECTOR TYPE ACC. TO | MILP/N | OVERALL/LOCALIZED FINISH | PRECI-DIP P/N | sIzE |
| MIL-DTL-38999 Serie I, II, III, IV | AS/M39029/58-360 | Overall | 82011-40-01 | \#22D |
| MLL-DTL-24308 |  | Localized | 82011-784-01 |  |
| MLL-DTL-55302 | AS/M39029/58-363 | Overall | 82021-40-01 | \#20 |
| MLL-DTL-83733 |  | Localized | 82021-784-01 |  |
|  | AS/M39029/58-364 | Overall | 82031-40-01 | \#16 |
|  |  | Localized | 82031-784-01 |  |
|  | AS/M39029/58-365 | Overall | 82041-40-01 | \#12 |
|  |  | Localized | 82041-784-01 |  |
| MLL-DTL-24308 | AS/M39029/64-369 | Overall | 82061-40-01 | \#20 |
|  |  | Localized | 82061-784-01 |  |
| MIL-DTL-26482 Series 2 | AS/M39029/4-110 | Overall | 82071-40-01 | \#20 |
| AS 81703 Series 3 |  | Localized | 82071-784-01 |  |
| ML-DTL-83723 Series 3 | AS/M39029/4-111 | Overall | 82081-40-01 | \#16 |
| MLL-DTL-83733 |  | Localized | 82081-784-01 |  |
|  | AS/M39029/4-113 | Overall | 82091-40-01 | \#12 |
|  |  | Localized | 82091-784-01 |  |
| MLL-DTL-26482 Series 1 | AS/M39029/31-240 | Overall | 82051-40-01 | \#20 |
|  |  | Localized | 82051-784-01 |  |
| MLL-DTL-26482 Series 1 | AS/M39029/31-229 | Overall | 82101-40-01 | \#16 |
| ML-DTL-26500 |  | Localized | 82101-784-01 |  |

## CONTACT DATA

preci-dip
www.pRECIIP.COM TEL+41324210400 SALESQPRECIIIP.COM


CLIP CODE 5410 6-finger
mating pin dametter range $\quad 0.3-0.5 \mathrm{~mm}$
complancra
$0.3-0.5 \mathrm{~mm}$
0.12 mm 1.8 mm
current rating


CLIP CODE 1110 3-FINGER
mating pin olameter range $\quad 0.36-0.52 \mathrm{~mm}$
complancra
min. mating pin Lengt
currentrating
0.12 mm
${ }_{3 \mathrm{~A}}^{2.3 \mathrm{~mm}}$


## CONTACT DATA

preci-dip standard clip

WWW.PRECIIP.COM TEL+4132421 0400 SALESePREEIIIP.coM
CLIP CODE 2110 3-FINGER

 cubrentrating 2.2 m
2 A



CLIP CODE 0510 3-FINGER
Mating pin diameter range $\quad 0.4-0.56 \mathrm{~mm}$
conbuancy
complancr $\triangle$
0.1 mm 2.2 mm
current rating



## CLIP CODE 3020 4-FINGER

Mating Pin dameter range $\quad 0.3-0.5 \mathrm{~mm}$
conplincy
complancr $\triangle$
min. mating pin lena
0.2 mm
2.4 mm
2.4 mm
3 A



## CONTACT DATA

preci-dip

## standard clip

WWW.PRECIIP.COM TEL +41 324210400 SALESePrecIIIP.CoM



CLIP CODE 3010 4-FINGER
mating pin damettrr range $\quad 0.36-0.56 \mathrm{~mm}$
complancy $\Delta$
current rating
0.2 mm
2.4 mm
${ }_{3 \mathrm{~A}}^{2.4 \mathrm{~m}}$



CLIP CODE 2210 6-FINGER
$\begin{array}{ll}\text { Mating pin dameter range } & 0.4-0.64 \mathrm{~mm} \\ \text { compliancr } \triangle & 0.14 \mathrm{~mm}\end{array}$
MIN. Mating pin Length $\quad 2 \mathrm{~mm}$
current rating



## CONTACT DATA

preci-dip standard clip
WWW.PRECIIP.COM TEL+41324210400 SALESePPEEIIIP.com

| CLIP CODE 3110 | 6-FINGER |
| :---: | :---: |
| mating pin diameter range | $0.38-0.7 \mathrm{~mm}$ |
| complancy ${ }^{\text {a }}$ | 0.3 mm |
| min. mating pin length | 2.5 mm |
| current rating | 3 A |
|  | Clip press-fit - into contact body |
|  |  |
|  | Precision machined body custom design welcome |



CLIP CODE 3130 6-FINGER

| ng pin dameter range | 0.38-0.7 m |
| :---: | :---: |
| complancr ${ }^{\text {a }}$ | 0.26 mm |
| min. mating pin lengt | 2.5 mm |

2.5 mm

3 A



CLIP CODE 3160 6-FINGER

| $\begin{array}{ll}\text { Mating pin dameter range } \\ \text { complancr } \Delta\end{array} \quad \begin{array}{l}0.42-0.72 \mathrm{~mm} \\ 0.28 \mathrm{~mm}\end{array}$ |
| :--- | :--- |

$\begin{array}{ll}\text { complancr } \triangle \\ \text { MIN Mativg Pin Length } & 0.28 \mathrm{~mm}\end{array}$

| MIN. Mating |  |
| :--- | :--- |
| Current rating | 3. |




## CONTACT DATA

preci-dip standard clip
WWW.PRECIIP.COM TEL+41324210400 SALESePREEIIIP.CoM


CLIP CODE 1410 6-FINGER

| Mating pin diametter range | $0.66-0.84 \mathrm{~mm}$ |
| :--- | :--- |
| Complancr $\triangle$ |  |
| Min Mating pin Length | 0.16 mm |
| CURRENT Rating | 2.2 mm |

current rating
2.2 mm
4.5 A



CLIP CODE 1610 6-FINGER
$0.56-0.84 \mathrm{~mm}$
min. mating pin length $\quad 0.2 \mathrm{~mm}$
current tating



## CONTACT DATA

preci-dip standard clip

WWW.PRECIIIP.COM TEL+41 1324210400 SALESePREGIIIP.CoM
CLIP CODE 0610 4-FINGER

| Mating pin diameter range |
| :--- | :--- |
| complancy $\triangle$ |$\quad 0.56-0.84 \mathrm{~mm}$


| COMPLANCY ${ }^{\text {S }}$ | 0.28 mm |
| :---: | :---: |
| min. mating pin length | 3.5 mm |





CLIP CODE 4710 6-FINGER
mating pin diameter range complancy $\triangle$ current rating
$0.64-0.92 \mathrm{~mm}$
0.24 mm
0.6 mm
5 A



CLIP CODE 1810 6-FINGER
Mating pin diameter range $\quad 0.92-1.06 \mathrm{~mm}$
complancy $\triangle$,
Min. mating pin lengt
0.14 mm
2.2 mm
2.2 mm
8 A



## CONTACT DATA

preci-dip
WWW.PRECIIIP.COM TEL+41 324210400 SALEE PPRECIIIP.CoM

| CLIP CODE 3410 | 4-FINGER |
| :---: | :---: |
| mating pin diameter range | $0.7-1.06 \mathrm{~mm}$ |
| complancr ${ }^{\text {a }}$ | 0.34 mm |
| min. mating pin length | 3.7 mm |
| current rating | 8 A |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
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CLIP CODE 0210 6-FINGER
$\begin{array}{ll}\text { Mating pin lameter range } \\ \text { complancr } \triangle\end{array} \quad 0.98-1.2 \mathrm{~mm}$ complancy $\triangle$
0.22 mm

3 mm
8 A
current rating



CLIP CODE 2710 6-FINGER
$\begin{aligned} & \text { Mating pin dametter range } \\ & \text { complancy }\end{aligned} \quad 0.96-1.3 \mathrm{~mm}$
complancr $\triangle$
${ }^{0.96-1.3 \mathrm{~mm}} 0$
Min. Mating pin leng
CURRENT rating
3 mm
8 A




## CONTACT DATA

preci-dip
WWW.PRECIIIP.COM TEL+41324210400 SALESePRECIIP.COM
CLIP CODE 4910 6-finger

| mating pin diameter | 1.4-1.65 m |
| :---: | :---: |
| com | 0.25 mm |

MIN. Mating pin Length $\quad 3$.
current rating
${ }_{11}^{3.4 \mathrm{~mm}}$



## CLIP CODE 1310 4-FINGER

mating pin dametter range $\quad 1.1-1.5 \mathrm{~mm}$
Compliancy
complancy $\begin{aligned} & \text { a }\end{aligned}$
0.35 mm

Min. Mating pin Leng
Current rating
4.2 mm



CLIP CODE 2310 6-FINGER
mating pin diameter rang complancra
$1.15-1.55 \mathrm{~mm}$
0.3 mm
${ }_{11}^{3.5 \mathrm{Am}}$
current rating


192
Due to technical progress, all information provided is subject to change without prior notice.

## CONTACT DATA

preci-dip

## standard clip




CLIP CODE 4010 8-FINGER


## CUSTOM DESIGN





## EXAMPLES

1. Spring-loaded and pad connectors for portable voice directed data acquisition termina

Miniature high density connector for single board industrial processor<br>single board industrial processor

3. LED display socket control panel
4. 545 way interstitial PGA socket with compliant press-fit terminations,
multi-processor, parallel computing nulti-processor, parallel computin nainframe computer
5. PCB interconnect component for
electronic banking terminal
6. Power connector hard-disk drive

[^0]
MrPLICATION FIELD

## EXAMPLES

Connector for car dash-board
instrument
2. Car dash-board connector for blind
mating
3. LeD lamp socket for back-lighting car radio

Spring-loaded connector for vehicles for secured cash transport
5. SMD connector for internal dash board connection
6. SMD spring-loaded and pad connector for dash board add-on fo telecommunication equipment

Spring-loaded connector for food conveyor trolley
8. Card connectors air conditioning control equipment, railway
9. Connector for press-fit assembly and connection to removable operation panel for car radio


## APPLICATION FIELDS <br> aircraft, aerospace and milita

## EXAMPLES

Miniature board to board connectors
Miniature board to
avionics equipment
. Interface socket PCB to ARINC
connector
Board-to-board connection in tactica
manpack radio
4. Radar equipment of military helicopter

```
5. Miniature board to board connector
```

5. Miniature board to board connector
avionics equipment
avionics equipment
. Interface socket PCB to ARINC
. Interface socket PCB to ARINC
Interface socket PCB to MUI connector
6. Miniature pad connector used in test
```

\footnotetext{
High-stiffness 2 mm -pitch connec
20. Sealed connector with very high quipment, electronic defence system

Floating spring-loaded contact with insulator body for electronic defense
} sytems systems for satellite navigation system





\section*{EXAMPLES}
1. Data interface connector for weighing
and counting systems
2. Test probe connector
3. Sensor connector for liquid analysis
4. Connector with mixed SMD and throughhole terminations
5. Connector for test systems for hard-disk drives

Base plate / connector system betwee sensor system and transmitter
8. Spring-loaded connector with recessed pistons for functional test systems for disk drives
Spring-loaded and pad connector for IR thermography camera

\begin{tabular}{|c|c|}
\hline (2) & APPLICATION FIELD \\
\hline & meoral \\
\hline
\end{tabular}

\section*{EXAMPLES}

Spring-loaded + pad connector for
breathing assistance equipment
2. Battery connector for portable blood pressure measuring equipment
3. Spring-loaded connector for removable display module
4. Electrode connector for muscul electro-stimulation systems
5. Spring-loaded and pad connector data exchange from portable patient monitoring unit into computer system
6. Socket for gas sensor

Socket for CCD image sensor for digital radiography

Overmoulded miniature connectors
with high degree of protection IP 67 with high degree of protection IP 67
for patient monitoring systems
9. Floating-pin spring-loaded connector with integrated snap-in bracket for connection

\begin{tabular}{|c|c|c|}
\hline d & APPLICATION FIELDS & (10) (87) \\
\hline -dip & Preremsional anv consumer & \\
\hline
\end{tabular}

\section*{EXAMPLES}
\begin{tabular}{lll} 
1. Miniature connector for ink-jet printing & \begin{tabular}{l} 
4. Connection in bayonet mating for \\
camera with interchangeable lenses
\end{tabular} & \begin{tabular}{l} 
8. Battery connector for portable media \\
player
\end{tabular} \\
\begin{tabular}{ll} 
2. Clamp-on connector to load data from
\end{tabular} & 5. PCB connector for add-on modules & 9. Board-to-board connection for model \\
train \\
fristwatch type diving computer into
\end{tabular}\(\quad\)\begin{tabular}{l} 
6. LeD display sockets for household \\
washing machine
\end{tabular}\(\quad\)\begin{tabular}{l} 
10. Spring-loaded connector for boiler \\
control panel
\end{tabular}


\section*{SALES OFFICES AND DISTRIBUTORS}
preci-dip
PRECI-DIP SALES OFFICE
HEADOUARTER-PRECI-DPSA SA SHANGHAI REPRESENTATIVE OFFICE
Rue Saint-Henri i1 P. Po. Box 834
24, No 379, Jin Sui Mansion,


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\hline FINLAND & www.arrowce.com & SWITZERLAND & kensal Electionics & \\
\hline Www.arrowne.com & Www.avnet-abacus.eu & Www.arrow.com & Avnet Abacus & \\
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[^0]:    SMD connector for docking station for ablett-PC, PDA and bar code readers
    8. Connector for security control loop on automatic cash dispenser, banking and ending machines

