



Amphenol Pcd is one of the world's leading suppliers of interconnect products for Military, Commercial Aerospace and Industrial applications. Located north of Boston in Beverly, Massachusetts, the company designs and manufactures a wide range of products; System Attachments, Junction Modules, Relay Sockets, Terminal Blocks, Rectangular & Circular Connectors, Cable Assemblies and Adapters. Each product is made and engineered with the highest quality standards in the industry. With facilities in North America and Asia, Amphenol Pcd products are chosen by thousands of OEMs around the world, reliant on Amphenol's technical excellence, global network of distributors, and cost-effective solutions for custom systems.

Amphenol Pcd

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Luminus Series

The Luminus Series are lightweight, cost-effective connectors that are highly reliable and simple to use. With multiple configurations and arrangements available, a solution can be tailored to suite your application's exact requirements. Proven solutions can be found in single engine general aviation, multiple-engine business and passenger jets, and high performance rotary aircraft. Ideal where space is limited, these innovative, "scoop-proof" connectors feature a locking mechanism that ensures stability, are suitable for blind-mating, and are RoHS compliant.

Features & Benefits

1/4 turn bayonet style connection; push and snap connection

Makes wire installation and maintenance easy and efficient; positive "click" when locked

Interfacial and Triple-Barrier Seal

Enables environmental sealing (IP 67 rating)

Multiple Keying Positions

Ensures proper connectivity

Multiple Configurations and Accessories

Tailored solutions to meet application needs

Contacts

AS39029 MIL Spec contacts for broad application compatibility. Stamped & Formed available as lower cost option

Visual markings

Visual aid for easy assembly

Rugged Polyamide Housings; 500 mating cycles

Durability

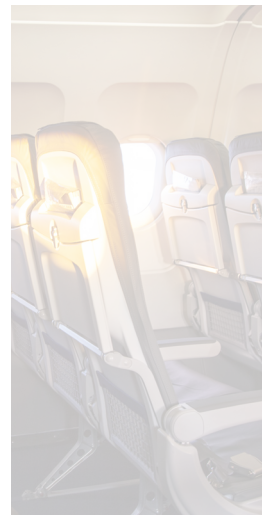
Blind-Mate Connection

Enables simple, blind mating; easy assembly

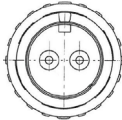
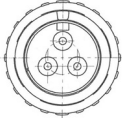


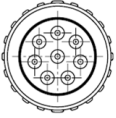

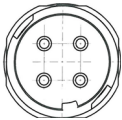
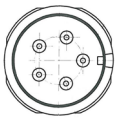
D160, M81714, FAR25 Compliance

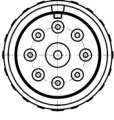
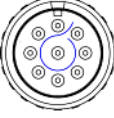
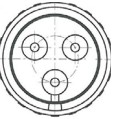



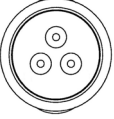

Meets demanding military-aerospace environmental conditions

Applications



Shell Sizes

| |
|---|
| 05 (max dia: 0.318) |
| 2, size 22 Twist & Lock |
|  |
| 3, size 22 Twist & Lock |
|  |
| 06 (max dia: 0.390) |
| 1, size 16 & 20 Push & Pull |
|  |
| 07 (max dia: 0.448) |
| 6, size 22 Twist & Lock |
|  |
| 8, size 22 Twist & Lock |
|  |
| 1, size 12 Push & Pull |
|  |
| 08 (max dia: 0.528) |
| 4, size 16 Twist & Lock |
|  |
| 5, size 22 Twist & Lock |
|  |

| |
|---|
| 08 (max dia: 0.528) |
| 9: 1, size 16; 8 size 22 Twist & Lock |
|  |
| 9, size 22 Twist & Lock |
|  |
| 3, size 16 Twist & Lock 3, size 20 Push & Pull |
|  |
| 10 (max dia: 0.630) |
| 9: 4, size 16; 5 size 22 Twist & Lock |
|  |
| 10: 4, size 16; 6 size 22 Twist & Lock |
|  |
| 11 (max dia: 0.700) |
| 3, size 12 Twist & Lock |
|  |
| 3, size 16 Push & Pull |
|  |
| 14 (max dia: 0.875) |
| 25, size 22 Twist & Lock |
|  |

Materials & Specifications

| | Push & Pull | Twist & Lock | |
|---|--|--|--------|
| Materials | Insulator Body: Polyamide 6/6 (Nylon) | Insulator Body: Polyamide 6/6 (Nylon) | |
| | Grommet: Silicone Rubber | Grommet & Face Seal: Silicone Rubber | |
| | Contact Retainer: Stainless Steel | Contact Retainer: Stainless Steel | |
| | Contacts: Copper Alloy Gold Plated | | |
| Temperature Range | -65°C to 125°C | -65°C to 125°C | |
| Temperature Life | 150 hours @ 95°C | 500 hours @ 85°C | |
| Insulation Resistance | 1500VAC, 60hz @ Sea Level | 5000 MΩ Min. @ 500 VDC | |
| Dielectric Withstanding | 1500 VAC, 60 Hz @ Sea Level, 1ma | 1500 VAC, 60 Hz @ Sea Level, 1ma | |
| | 300 VAC, 60 Hz @ 70,000 ft, 2ma | 300 VAC, 60 Hz @ 70,000 ft, 2ma | |
| Durability | 50 mating cycles | 500 mating cycles | |
| Altitude Immersion | 5% salt solution, 55k ft, DWV 1500VA | 5% salt solution, 75k feet | |
| | | 5000Mohms @ 1500 VAC, sea level | |
| | | 5000Mohms @ 300 VAC, 70k ft | |
| | | 5000Mohms @ 300 VAC, 100k ft | |
| Temperature Cycling | 5(1) Hour Cycles: 0 C to 95 C | 5(1) Hour Cycles: -65°C to 125°C | |
| Thermal Shock | 5(1) Hour Cycles: 0 C to 95 C | -65°C to 200°C | |
| Vibration | Contact Factory | 30G Sinusoidal; 43.96G Random | |
| Shock | | 300G, 3msec, Half-Sine | |
| Salt Spray | | 5% Salt Spray @ 95°C for 48 Hours | |
| Humidity | | 10 Days @ 25°C to 65°C, 90% - 95% RH | |
| Fluid Immersion | | Lubricating Oil per Mil-Prf-7808 | |
| | | Cleaning Compound per Mil-Prf-87937, Alkaline Base | |
| | | Isopropyl Alcohol & Mineral Spirit Solution | |
| | Skydrol Hydraulic Fluid | Skydrol Hydraulic Fluid | |
| | Hydraulic Fluids per MIL-PRF-83282 MIL-PRF-87257 | Hydraulic Fluids per MIL-PRF-83282 MIL-PRF-87257 | |
| | Ethylene Glycol | Ethylene Glycol | |
| | Propylene Glycol | Propylene Glycol | |
| Aviation Jet A | Aviation Jet A | | |
| Seal Rating | IP67 | IP67 | |
| Flammability | UL94, V0. | UL94, V0. | |
| | | DOTG section 26.6.2 & 26.6.3 | |
| | | FAR Part 25 App F Part I | |
| RoHS & REACH Compliance | Yes | Yes | |
| Contact Insertion & Removal Force (not to exceed) | - | size 22 | 10 lbs |
| | | size 20 | 10 lbs |
| | | size 16 | 13 lbs |
| | | size 12 | 15 lbs |
| Contact Retention (minimum) | - | size 22 | 10 lbs |
| | | size 20 | 15 lbs |
| | | size 16 | 25 lbs |
| | | size 12 | 30 lbs |

Part Numbering (Twist & Lock)



| # of Positions | Contact Size | Shell Size | Key | Color | Plug P/N | Inline Receptacle P/N | Circular Receptacle P/N | Square Receptacle PN | Jamnut PCB Mount | Oval Receptacle PN | Jam Nut Rear Mount Receptacle PN |
|----------------|--------------|------------|-----|--------|------------|-----------------------|-------------------------|----------------------|------------------|--------------------|----------------------------------|
| 1 | Quadrax | 8 | - | - | SJS801110 | SJS801120 | - | SJS801130* | SJS801160* | SJS801170* | SJS801190* |
| 2 | 22D | 5 | - | black | SJS830250 | SJS830270 | - | - | - | SJS502170 | SJS502190 |
| 3 | 12 | 11 | - | black | SJS103110* | SJS103120* | - | - | - | - | - |
| 3 | 22D | 5 | - | black | SJS830210 | SJS830230 | - | - | - | SJS503170 | SJS503190 |
| 3 | 20 | 7 | - | white | SJS862300 | SJS862400 | - | SJS862450 | - | - | - |
| 3 | 16 | 8 | A | white | SJS840310 | SJS840300 | SJS840320 | SJS803730 | - | - | - |
| 3 | 16 | 8 | B | black | SJS840340 | SJS840350 | SJS840330 | SJS803130 | - | - | - |
| 3 | 12 | 10 | - | - | SJS003110 | SJS003120 | - | - | - | - | - |
| 3 | 12 | 11 | - | black | SJS103110 | SJS103120 | - | - | - | - | - |
| 4 | 16 | 8 | A | white | SJS840410 | SJS840400 | SJS840420 | SJS804730 | SJS804760 | - | SJS804790 |
| 4 | 16 | 8 | B | white | SJS840440 | SJS840450 | SJS840430 | - | - | - | - |
| 4 | 20 | 7 | - | black | SJS704110 | SJS704120 | - | - | - | - | - |
| 5 | 22D | 8 | - | white | SJS860510 | SJS860500 | SJS860520 | SJS805730 | - | - | - |
| 5 | 22D | 8 | - | white | SJS870510 | - | SJS870520 | - | - | - | - |
| 6 | 22D | 7 | - | black | SJS861700 | SJS861800 | - | - | SJS706160 | - | - |
| 8 | 22D | 7 | A | black | SJS830100 | SJS830200 | - | SJS830220 | SJS708160 | SJS708170 | SJS708190 |
| 8 | 22D | 7 | B | green | SJS830101 | SJS830201 | - | SJS830221 | - | - | - |
| 8 | 22D | 7 | C | yellow | SJS830102 | SJS830202 | - | SJS830222 | - | - | - |
| 9 | 22D | 8 | - | black | SJS862100 | SJS862200 | - | SJS809130 | - | - | - |
| 12 | 22D | 8 | - | white | SJS861300 | SJS861400 | - | SJS812730 | SJS812760* | - | - |
| 12 | 22D | 11 | A | black | SJS112110 | SJS112120 | - | - | SJS112160 | - | - |
| 12 | 22D | 11 | B | - | SJS112210 | SJS112220 | - | - | SJS112260 | - | - |
| 12 | 22D | 11 | C | - | SJS112310 | SJS112320 | - | - | SJS112360 | - | - |
| 12 | 22D | 11 | D | - | SJS112410 | SJS112420 | - | - | SJS112460 | - | - |
| 25 | 22D | 14 | A | black | SJS425110 | SJS425120 | - | - | SJS425160 | - | - |
| 25 | 22D | 14 | B | - | SJS425210 | SJS425220 | - | - | SJS425260 | - | - |
| 25 | 22D | 14 | C | - | SJS425310 | SJS425320 | - | - | SJS425360 | - | - |
| 25 | 22D | 14 | D | - | SJS425410 | SJS425420 | - | - | SJS425460 | - | - |
| 12 | 20 | 14 | - | - | SJS412110 | SJS412120 | - | - | - | - | - |
| 5 | 12 (3) | 11 | - | black | SJS1AE110* | SJ1AE120* | - | - | - | - | - |
| | 22 (2) | | | | | | - | - | - | - | - |
| 9 | 16 | 8 | - | white | SJS860100 | SJS860200 | - | - | - | - | - |
| | 22D | | | | | | - | - | - | - | - |
| 9 | 16 | 10 | - | white | SJS860910 | SJS860900 | - | SJS0AA730 | - | - | - |
| | 22D | | | | | | - | - | - | - | - |
| 10 | 16 | 10 | - | white | SJS861100 | SJS861200 | - | SJS0A8730* | SJS0BB770* | - | - |
| | 22D | | | | | | - | SJS0AB730 | SJS0AB770 | - | - |

Note: Above part numbers come without contacts; inquire within for "with contacts" part numbers
 * SJS870510 uses pin contacts; SJS870520 uses socket contacts

*Available at extended lead time.

Part Numbering (Push & Pull)



| Contact Size | Contact Qty | Shell Size | Key | Color | Plug P/N | Receptacle |
|--------------|-------------|------------|-----|--------|-----------|------------|
| 12 | 1 | 7 | n/a | blue | SJS512100 | SJS512200 |
| 12 | 1 | 7 | n/a | red | SJS512110 | SJS512210 |
| 16 | 1 | 6 | n/a | blue | SJS716100 | SJS716200 |
| 16 | 1 | 6 | n/a | red | SJS716110 | SJS716210 |
| 20 | 1 | 6 | n/a | green | SJS720100 | SJS720200 |
| 20 | 1 | 6 | n/a | yellow | SJS720110 | SJS720210 |
| 16 | 3 | 11 | A | red | SJS816100 | SJS816200 |
| 16 | 3 | 11 | B | white | SJS816110 | SJS816210 |
| 16 | 3 | 11 | C | blue | SJS816120 | SJS816220 |
| 20 | 3 | 8 | A | red | SJS820100 | SJS820200 |
| 20 | 3 | 8 | B | white | SJS820110 | SJS820210 |
| 20 | 3 | 8 | C | blue | SJS820120 | SJS820220 |

Part Numbering (Accessories)



| Shell Size | Strain Relief Single | Strain Relief Single 90° | Strain Relief Single 45° | Double Strain Relief | Double Side Tape Mount Cradle | Screw Mount Cradle | Tube Mount Cradle | Single Side Tape Tube Mount Cradle | Double Side Tape Tube Mount Cradle | Dummy Flanges | Hard Protective Caps |
|------------|----------------------|--------------------------|--------------------------|----------------------|-------------------------------|--------------------|-------------------|------------------------------------|------------------------------------|---------------|----------------------|
| 5 | SJSA55000 | SJSAA5100 | SJSAA5200 | SJSA56000 | SJS257000 | SJS257100 | SJSA5V000 | SJS5AV010 | SJS5AV020 | - | SJSA5B000 |
| 7 | SJS450350 | SJSA75100 | SJSA75200 | SJSA76000 | SJS883000 | SJS450250 | SJSA7V000 | SJSA7V010 | SJSA7V020 | SJS830220D | SJSA7B000 |
| 8 | SJSA85000 | SJSA85100 | SJSA85200 | SJSA86000 | SJS445000 | SJS450100 | SJSA8V000 | SJSA8V010 | SJSA8V020 | - | SJSA8B000 |
| 10 | SJSA05000 | SJSA05100 | SJSA05200 | SJSA06000 | SJS991000 | - | SJSA0V000 | SJSA0V010 | SJSA0V020 | SJS0AA730D | SJSA0B000 |

Contact Information: Machined and Stamped & Formed

Now with Quadrax & Fiber Optic (M29504) capability

| | |
|------------------------|--------------------------------------|
| Shipping Format | Loose (Tape & reel not included) |
| Mating Cycles | 500 |
| Materials | Contact Body: Copper Alloy |
| | Hood Stainless Steel |
| | Sleeve Stainless Steel |

| | |
|------------------------|---|
| Dimensions | AS39029 Compatible |
| Plating Options | Machined Gold plate 50 microinches min over |
| | Stamped & Formed Selective gold plate over engagement area 3-5 microinches thick over nickel underplate |

Contact Matrix

| Contact Size | Contact Style | Available | | Contact P/N | | QPL Part No. (Machined Only) | Contact Retention | Crimp Tensile Strength |
|--------------|---------------|-----------|------------|-------------|------------------|------------------------------|-------------------------------|------------------------|
| | | Push-Pull | Twist-Lock | Machined | Stamped & Formed | | | |
| 12 | Pin | Yes | Yes | CNP058365 | SCP058365 | M39029/58-365 | .012" [0,30mm] @ 30lbf [133N] | 100lbf [445N] |
| | Socket | No | Yes | CNS057359 | SCS057359 | M39029/57-359 | | |
| | Socket-L | Yes | No | CNS056353 | n/a | M39029/56-353 | | |
| 16 | Pin | Yes | Yes | CNP058364 | SCP058364 | M39029/58-364 | .012" [0,30mm] @ 25lbf [111N] | 40lbf [180N] |
| | Socket | No | Yes | CNS057358 | SCS057358 | M39029/57-358 | | |
| | Socket-L | Yes | No | CNS056352 | n/a | M39029/56-352 | | |
| 20 | Pin | Yes | Yes | CNP058363 | SCP058363 | M39029/58-363 | .012" [0,30mm] @ 20lbf [90N] | 20lbf [90N] |
| | Socket | No | Yes | CNS057357 | SCS057357 | M39029/57-357 | | |
| | Socket-L | Yes | No | CNS056351 | n/a | M39029/56-351 | | |
| 22D | Pin | No | Yes | CNP058360 | n/a | M39029/58-360 | .012" [0,30mm] @ 10lbf [44N] | 10 lbf [45N] |
| | Socket | No | Yes | CNS057354 | n/a | M39029/57-354 | | |

| Contact Size | Wire Accommodations | | | | Tool Information | | | |
|--------------|---------------------|------------------------|---------------------------------|---------------------------------|------------------|----------------------|------------------------|-------------|
| | Size (AWG) | Max Current Rating (A) | ØD Range | Strip Length | Basic Tool | Positioner | Insertion/Removal Tool | |
| 12 | 12 | 23 | .097 - .142" [2,46 - 3,61mm] | .209 - .240" [5,31 - 6,10mm] | M22520/1-01 | M22520/1-04 (Yellow) | M81969/14-04 | |
| | 14 | 17 | | | | | | |
| 16 | 16 | 13 | .065 - .109" [1,65 - 2,77mm] | .209 - .240" [5,31 - 6,10mm] | M22520/1-01 | M22520/1-04 (Blue) | M81969/14-03 | |
| | 18 | 10 | | | | | | |
| | 20 | 7.5 | | | M22520/7-01 | M22520/7-04 | | |
| 20 | 20 | 7.5 | .040 - .083" [1,02 - 2,11mm] | .209 - .240" [5,31 - 6,10mm] | M22520/1-01 | M22520/1-04 (Red) | M81969/14-11 | |
| | 22 | 5 | | | M22520/2-01 | | | M22520/2-10 |
| | 24 | 3 | | | M22520/7-01 | | | M22520/7-08 |
| 22D | 22 | 5 | .030 - .054" [0,76 - 1,37mm] | .141 - .172" [3,58 - 4,37mm] | M22520/2-01 | M22520/2-06 | M81969/14-01 | |
| | 24 | 3 | | | M22520/7-01 | | | M22520/7-06 |
| | 26 | 2 | | | | | | |
| | 28 | 1.5 | | | | | | |

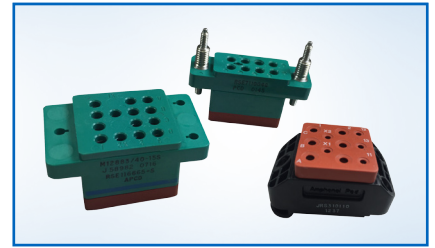
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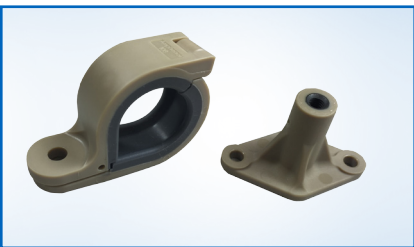
Backshells



Cable Solutions &
Cable Adapters
NEW



Relay Sockets



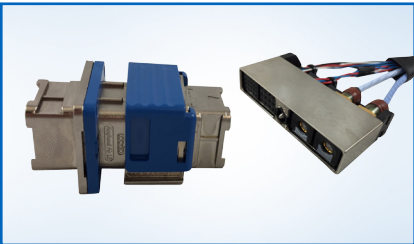
System
Attachments



Luminus Series



Junction Modules



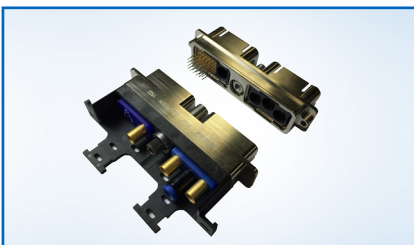
SIM



Pegasus Series
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Circular



EN4644



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