

# Amphenol Pcd



# LUMINUS

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## Description:

Luminus 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 suit 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.

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## Features and 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

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## Typical Applications:

- Aerospace Lighting
- Power & Signal Distribution
- Cabin Service Systems
- Actuation & Sensors



# LUMINUS

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## Shell Size

05 (max dia: 0.318)



2, size 22, Twist & Lock



3, size 22, Twist & Lock

10 (max dia: 0.630)



9: 4, size 16; 5 size 22 Twist & Lock



10: 4, size 16; 6 size 22 Twist & Lock

06 (max dia: 0.390)



1, size 16 & 20, Push & Pull

11 (max dia: 0.700)



3, size 12, Twist & Lock

07 (max dia: 0.448)



3, size 16, Push & Pull



6, size 22, Twist & Lock

14 (max dia: 0.875)



8, size 22, Twist & Lock



25, size 22, Twist & Lock



1, size 12, Push & Pull

08 (max dia: 0.528)



4, size 16, Twist & Lock



5, size 22, Twist & Lock



9: 1, size 16; 8 size 22 Twist & Lock



9, size 22 Twist & Lock



3, size 16 Twist & Lock



3, size 20 Push & Pull

## Materials and 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               | 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<br><small>(not to exceed)</small> |  | size 22  | 10 lbs                               |
|   |  | size 20  | 10 lbs                               |
|   |  | size 16  | 13 lbs                               |
|   |  | size 12  | 15 lbs                               |
| Contact Retention<br><small>(minimum)</small>                       |  | 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          | SJ503190                         |
| 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            | SJS840760        | -                  | SJS840790                        |
| 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.

# LUMINUS

## 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<br>Body: Copper Alloy    |
|                 | Hood<br>Stainless Steel          |
|                 | Sleeve<br>Stainless Steel        |

|                 |  |
|-----------------|--|
| Dimensions      | AS39029 Compatible   |
| Plating Options | Machined<br>Gold plate 50 micro-inches min over  |
|                 | Stamped & Formed<br>Selective gold plate over engagement area 3-5 micro-inches thick over nickel under plate |

## Contact Matrix

| Contact Size | Contact Style | Available |            | Contact P/N |                  | QPL Part No.<br>(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] @<br>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] @<br>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] @<br>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] @<br>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"<br>[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"<br>[5,31 - 6,10mm] | M22520/1-01      | M22520/1-04 (Blue)   | M81969/14-03           |
|              | 18                  | 10                     |                              |                                 | M22520/7-01      |                      |                        |
|              | 20                  | 7.5                    |                              |                                 | M22520/7-01      |                      |                        |
| 20           | 20                  | 7.5                    | .040 - .083" [1,02 - 2,11mm] | .209 - .240"<br>[5,31 - 6,10mm] | M22520/1-01      | M22520/1-04 (Red)    | M81969/14-11           |
|              | 22                  | 5                      |                              |                                 | M22520/2-01      |                      |                        |
|              | 24                  | 3                      |                              |                                 | M22520/7-01      |                      |                        |
| 22D          | 22                  | 5                      | .030 - .054" [0,76 - 1,37mm] | .141 - .172"<br>[3,58 - 4,37mm] | M22520/2-01      | M22520/2-06          | M81969/14-01           |
|              | 24                  | 3                      |                              |                                 |                  |                      |                        |
|              | 26                  | 2                      |                              |                                 | M22520/7-01      | M22520/7-06          |                        |
|              | 28                  | 1.5                    |                              |                                 |                  |                      |                        |



# AMPHENOL PCD PRODUCTS



BACKSHELLS



CABLE SOLUTIONS



CIRCULAR



GROUND BLOCKS



JUNCTION MODULES



LUMINUS



MILITARY AUDIO/POWER



PEGASUS SERIES



RECTANGULAR



RELAY SOCKETS



RUGGED SOLUTIONS



SIM



SOLARIS



SYSTEM ATTACHMENTS

**Amphenol Pcd**  
[www.amphenolpcd.com](http://www.amphenolpcd.com)





**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

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С нами вы становитесь еще успешнее!

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