

### Amphenol Pcd

## ENVIRONMENTALLY SEALED IN-LINE JUNCTIONS

Amphenol Pcd expands the SJS family with a line of environmentally sealed In-Line Junction Splices developed to bring higher reliability, improved installation ease, and greater flexibility to wiring applications.

These In-Line Junctions consist of compact, cylindrical plug and receptacle housings, which lock firmly together with a straight push and unlock with either a simple "twist and pull" (single contact) or "squeeze and pull" (triple contact) motion.

### FEATURES & BENEFITS

Developed to meet MIL-T-81714 criteria

Interfacial seal and triple barrier rear seal provide complete environmental sealing

Quick disconnect capability streamlines wire maintenance

Rugged polyamide housings

Single wire styles offered in two colors per size allowing for immediate wire recognition

Triple wire styles offer three color-coded keying options

Protective dust cover available

Polarization feature enables blind, fool-proof mating

Uses standard Military Specification MIL-C-39029 contacts

Low profile wire bundling

### In-Line Junctions

#### Single Wire Junction

Single wire junctions have a housing diameter of .390" and .430" and are available in two colors per size. These junctions feature an environmental sealing that meets EIA-364D-03B to 12,000ft, Altitude Immersion Test standards. To mate plug and receptacle push both sides together and "twist and pull" to release.



#### Triple Wire Junction

Triple wire junctions are environmentally sealed and have a .700" diameter housing. These housings feature molded-in polarizing keys providing three distinct configuration choices and offer color coding in red, white and blue. To mate plug and receptacle push together to lock and "squeeze and pull" finger grips on plug to release.

#### Customer Specific Customization

Amphenol Pcd welcomes inquiries for application specific modifications to the standard In-Line Junction series. The Environmentally Sealed In-Line Junction product series is continuously expanding to meet current and future customer needs. Application specific customization includes:

##### • Varied Wire Gauges

- Custom Colors
- Unique Markings

##### • High Power

- Electronic Packaging
- Increased Pin Count

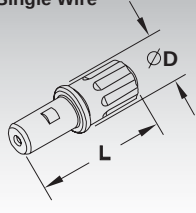
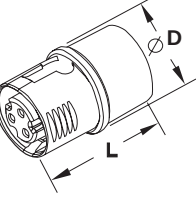
##### • Alternate Contacts

- Distinct Configurations
- Other Needed Alterations

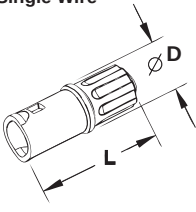
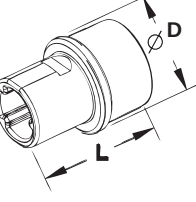
### Amphenol Pcd

## ENVIRONMENTALLY SEALED IN-LINE JUNCTIONS

### In-Line Junction Plugs

| Single Wire                                                                      | Size | Part No.  | Length |      | Diameter |      | Mated Length |      | Weight | Key | Color  |
|----------------------------------------------------------------------------------|------|-----------|--------|------|----------|------|--------------|------|--------|-----|--------|
|                                                                                  |      |           | Inch   | cm   | Inch     | cm   | Inch         | cm   |        |     |        |
|  | 16   | SJS716100 | 1.13   | 2.87 | 0.39     | 0.99 | 1.65         | 4.20 | 1.70   | N/A | Blue   |
|                                                                                  |      | SJS716110 |        |      |          |      |              |      |        |     | Red    |
|                                                                                  | 20   | SJS720100 | 1.11   | 2.81 | 0.39     | 0.99 | 1.70         | 4.30 | 1.40   | N/A | Green  |
|                                                                                  |      | SJS720110 |        |      |          |      |              |      |        |     | Yellow |
|  | 16   | SJS816100 | 1.12   | 2.84 | 0.70     | 1.78 | 1.60         | 4.10 | 5.30   | A   | Red    |
|                                                                                  |      | SJS816110 |        |      |          |      |              |      |        | B   | White  |
|                                                                                  |      | SJS816120 |        |      |          |      |              |      |        | C   | Blue   |
|                                                                                  | 20   | SJS820100 | 1.08   | 2.74 | 0.70     | 1.78 | 1.68         | 4.30 | 4.30   | A   | Red    |
|                                                                                  |      | SJS820110 |        |      |          |      |              |      |        | B   | White  |
|                                                                                  |      | SJS820120 |        |      |          |      |              |      |        | C   | Blue   |

### In-Line Junction Receptacles

| Single Wire                                                                        | Size | Part No.  | Length |      | Diameter |      | Mated Length |      | Weight | Key | Color  |
|------------------------------------------------------------------------------------|------|-----------|--------|------|----------|------|--------------|------|--------|-----|--------|
|                                                                                    |      |           | Inch   | cm   | Inch     | cm   | Inch         | cm   |        |     |        |
|   | 16   | SJS716200 | 1.06   | 2.69 | 0.43     | 1.09 | 1.65         | 4.20 | 1.50   | N/A | Blue   |
|                                                                                    |      | SJS716210 |        |      |          |      |              |      |        |     | Red    |
|                                                                                    | 20   | SJS720200 | 1.03   | 2.61 | 0.39     | 0.99 | 1.70         | 4.30 | 1.20   | N/A | Green  |
|                                                                                    |      | SJS720210 |        |      |          |      |              |      |        |     | Yellow |
|  | 16   | SJS816200 | 1.03   | 2.61 | 0.70     | 1.78 | 1.60         | 4.10 | 4.60   | A   | Red    |
|                                                                                    |      | SJS816210 |        |      |          |      |              |      |        | B   | White  |
|                                                                                    |      | SJS816220 |        |      |          |      |              |      |        | C   | Blue   |
|                                                                                    | 20   | SJS820200 | 0.99   | 2.51 | 0.70     | 1.78 | 1.68         | 4.30 | 3.70   | A   | Red    |
|                                                                                    |      | SJS820210 |        |      |          |      |              |      |        | B   | White  |
|                                                                                    |      | SJS820220 |        |      |          |      |              |      |        | C   | Blue   |

#### TECHNICAL SPECIFICATIONS

##### MATERIALS

|                    |                         |
|--------------------|-------------------------|
| Insulator Body:    | Polyamide (Nylon)       |
| Grommet:           | Silicone Rubber         |
| Contacts:          | Plugs - M39029/56       |
|                    | Receptacles - M39029/58 |
| Contact Retainers: | Stainless Steel         |

##### PERFORMANCE

|                                  |                                    |
|----------------------------------|------------------------------------|
| Temperature Range:               | -65°C to 160°C                     |
| Insulation Resistance:           | > 5000 Megohms                     |
| Dielectric Withstanding Voltage: | 1500Vrms @ Sea Level               |
| Current Ratings:                 | 600Vrms @ 45,000 ft. Altitude      |
|                                  | Contact Size 20 - 7.5 Amps         |
|                                  | Contact Size 16 - 13 Amps          |
| Sealing:                         | EIA-364D-03B (12,000 ft.)          |
| Vibration:                       | EIA-364D-28D (Test Condition V, E) |
| Flammability Rating:             | UL94, V0.                          |
| CTI Rating:                      | UL746B, 600V                       |
| Contact Retention:               | EIA-364D-29B (20 lb.)              |

#### Contacts

Contacts are not provided with the In-Line Junctions and must be ordered separately. Three pin and socket sets are required per triple wire junction and one pair per single.

|                     |                        |
|---------------------|------------------------|
| Size 16 Plugs       | M39029/56-352 (socket) |
| Size 20 Plugs       | M39029/56-351 (socket) |
| Size 16 Receptacles | M39029/58-364 (pin)    |
| Size 20 Receptacles | M39029/58-363 (pin)    |

#### Termination Accessories

Crimp Tool for contacts and Insertion/Removal tool details

| Wire Gauge | Crimp Tool  |                  | Installation |
|------------|-------------|------------------|--------------|
|            | Basic Tool  | Positioner       |              |
| Size 16    | M22520/1-01 | M22520/1-04 BLUE | M81969/14-03 |
| Size 20    | M22520/1-01 | M22520/1-04 RED  | M81969/14-02 |

### Related Amphenol Products

#### Junction Modules

##### MIL-T-81714 Series I



Track-mounted Terminal Junction Modules with multiple bussing and electronic package options.

##### MIL-T-81714 Series II



High density, low weight, environmentally sealed Socket Junction Modules with light weight composite track.

#### Wire Splices

##### In-Line Wire Splices



Single and multi-contact In-Line Wire Splices to MIL-T-81714 Series I and II, and 1119 splices to NSA936830.

#### Electronic Splices



Electronic Component Splices available with a variety of diodes, fuses, capacitors or resistors. Designed to meet MIL-T-81714 environmental requirements.

| Mated Pair Images |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|
| 1-Pin             |  |
| 3-Pin             |  |
| 8-Pin             |  |

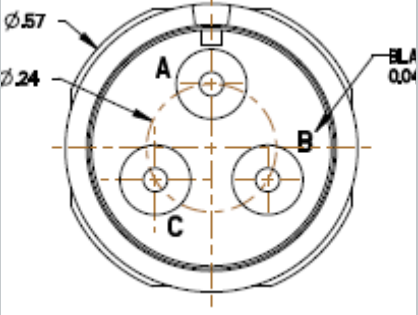
**Amphenol Pcd**

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Tel:(978) 624-3453  
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[tpadula@amphenolpcd.com](mailto:tpadula@amphenolpcd.com)

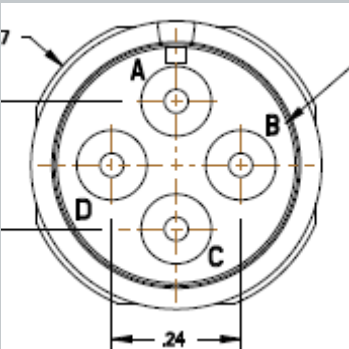
**Amphenol PCD**  
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Beverly, MA 01945  
[www.amphenolpcd.com](http://www.amphenolpcd.com)

**Interface Examples**

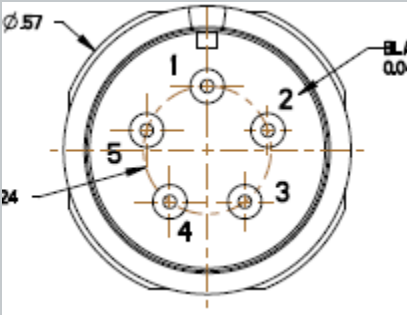
3-Pin



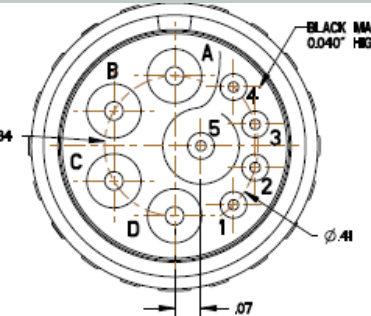
4-Pin



5-Pin



9-Pin



## New from Amphenol Pcd

### Introducing the NEW 8-Pin QuickConnect™



Designed for lean manufacturing, the 8-Pin QuickConnect™ is the latest addition to the SJS QuickConnect series from Amphenol Pcd. It was developed to bring higher reliability and flexibility to wiring applications and to make installation and maintenance easier.

#### Benefits at a Glance (entire SJS QuickConnect™ series)

##### MIL-T-81714

Developed to meet MIL-T-81714 criteria.

##### Quick, Simple Connection

Makes wire installation and maintenance simple and efficient.

##### Environmental Sealing

Interfacial and triple-barrier rear seal provide complete environmental sealing.

##### MIL-C-39029

Uses standard MIL-C-39029 contacts.

##### Durability

Rugged polyamide housings.

##### Blind-Mate Connection

Polarization feature enables blind, foolproof mating.



(Actual Size)

#### MORE NEW QUICKCONNECTS



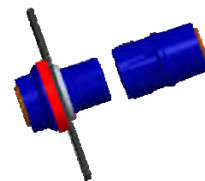
#### Single-Pin QuickConnect™

[More details inside](#)



#### Triple-Pin QuickConnect™

[More details inside](#)



#### QuickConnect™ accessories

[Contact us for more information](#)

## TECHNICAL SPECIFICATIONS

### MATERIALS

|                   |                       |
|-------------------|-----------------------|
| Insulator Body    | Polyamide 6/6 (Nylon) |
| Grommet           | Silicone Rubber       |
| Contact Retainers | Stainless Steel       |

### PERFORMANCE

|                         |                                         |
|-------------------------|-----------------------------------------|
| Temperature Range       | - 65°C to + 125°C                       |
| Insulation Resistance   | 5000 Megaohms Min.<br>@ 500 VDC         |
| Dielectric Withstanding | 1000 VRMS, 60 Hz @ Sea Level            |
|                         | 300 VRMS, 60 Hz @ 70,000 ft.            |
|                         | 300 VRMS, 60 Hz @ 100,000 ft.           |
| Current Ratings         | Size 22: 5 Amps                         |
| Durability              | 500 Mating Cycles                       |
| Temperature Cycling     | 5 (1) Hour Cycles:<br>- 65°C to + 125°C |
| Shock                   | 100G Sawtooth, 6MS                      |
| Vibration               | 10-2000 Hz, 15G Peak                    |
| Salt Spray              | 5% Salt Spray<br>@ 95°F for 48 Hours    |
| Humidity                | 10 Days @ 25°C to 65°C,<br>80-90% RH    |

## CONTACTS

|            |         |                        |
|------------|---------|------------------------|
| Plug       | Size 22 | M39029/57-354 (socket) |
| Receptacle | Size 22 | M39029/58-360 (pin)    |

(Contacts must be ordered separately.)



For new contact arrangements, contact us.

## 8-Pin QuickConnect™

### Product Description

#### 8-Pin QuickConnect™:

The new 8-Pin QuickConnect, the latest product in the SJS QuickConnect series, was developed to bring higher reliability and flexibility to wiring applications. Designed to meet MIL-T-81714 criteria, the product, with no tools necessary, is simple to install and easy to maintain. It features a locking mechanism that ensures mating stability and a high density contact area that allows for a variety of power and data applications—all within a small, lightweight envelope.

#### To Connect:

1. On plug, line up circle and triangle.
2. Align circles on plug and receptacle.
3. Gently push together and "twist" to lock.

#### Receptacle

#### Plug

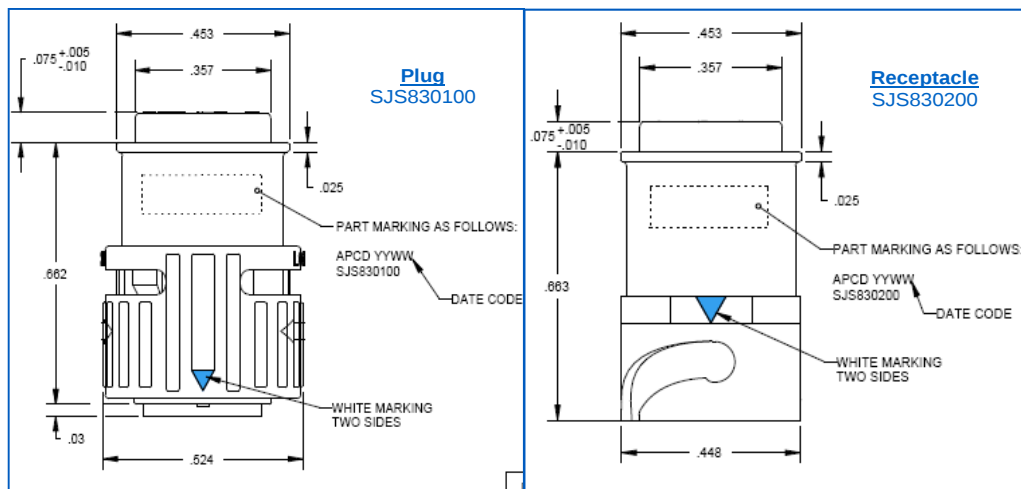


### Plug description

| 8 Wire | Size | Part No.  | Length |      | Diameter |      | Mated Length |      | Weight | Key | Color |
|--------|------|-----------|--------|------|----------|------|--------------|------|--------|-----|-------|
|        |      |           | Inch   | cm   | Inch     | cm   | Inch         | cm   | Grams  |     |       |
|        | 22   | SJS830100 | 0.77   | 1.95 | 0.52     | 1.32 | 1.25         | 3.18 | 1.72   | N/A | Black |

### Receptacle description

| 8 Wire | Size | Part No.  | Length |      | Diameter |      | Mated Length |      | Weight | Key | Color |
|--------|------|-----------|--------|------|----------|------|--------------|------|--------|-----|-------|
|        |      |           | Inch   | cm   | Inch     | cm   | Inch         | cm   | Grams  |     |       |
|        | 22   | SJS830200 | 0.74   | 1.88 | 0.45     | 1.14 | 1.25         | 3.18 | 1.37   | N/A | Black |



Dimensions: Inches

## Single-Pin & Triple-Pin QuickConnect™

### Product Description

#### Single-Pin QuickConnect™:

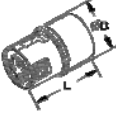
Developed to meet MIL-T-81714 criteria and available in two colors per size, these products feature an environmental sealing that meets EIA-364D-03B to 12,000 ft. Altitude Immersion Test standard. Mating and releasing the plug and receptacle is made simple to do. Simply push the part together to mate, and "twist and pull" to release.

#### Triple-Pin QuickConnect™:

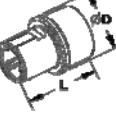
Developed to meet MIL-T-81714 criteria and available in three colors, these products feature molded-in polarizing keys to enable blind-mate connections. Simply push the part together to mate and lock, and "squeeze and pull" to release.



### Plug descriptions

| Single Wire                                                                         | Size | Part No.  | Length |      | Diameter |      | Mated Length |      | Weight Grams | Key | Color  |
|-------------------------------------------------------------------------------------|------|-----------|--------|------|----------|------|--------------|------|--------------|-----|--------|
|                                                                                     |      |           | Inch   | cm   | Inch     | cm   | Inch         | cm   |              |     |        |
|    | 12   | SJS512100 | 1.21   | 3.07 | 0.45     | 1.14 | 1.78         | 4.52 | 2.19         | N/A | Blue   |
|                                                                                     |      | SJS512110 |        |      |          |      |              |      |              |     | Red    |
|                                                                                     | 16   | SJS716100 | 1.13   | 2.87 | 0.39     | 0.99 | 1.65         | 4.20 | 1.70         | N/A | Blue   |
|                                                                                     |      | SJS716110 |        |      |          |      |              |      |              |     | Red    |
|                                                                                     | 20   | SJS720100 | 1.11   | 2.82 | 0.39     | 0.99 | 1.70         | 4.32 | 1.40         | N/A | Green  |
|                                                                                     |      | SJS720110 |        |      |          |      |              |      |              |     | Yellow |
|  | 16   | SJS816100 | 1.12   | 2.84 | 0.70     | 1.78 | 1.60         | 4.10 | 5.30         | A   | Red    |
|                                                                                     |      | SJS816110 |        |      |          |      |              |      |              | B   | White  |
|                                                                                     |      | SJS816120 |        |      |          |      |              |      |              | C   | Blue   |
|                                                                                     | 20   | SJS820100 | 1.08   | 2.74 | 0.70     | 1.78 | 1.68         | 4.27 | 4.30         | A   | Red    |
|                                                                                     |      | SJS820110 |        |      |          |      |              |      |              | B   | White  |
|                                                                                     |      | SJS820120 |        |      |          |      |              |      |              | C   | Blue   |

### Receptacle descriptions

| Single Wire                                                                         | Size | Part No.  | Length |      | Diameter |      | Mated Length |      | Weight Grams | Key | Color  |
|-------------------------------------------------------------------------------------|------|-----------|--------|------|----------|------|--------------|------|--------------|-----|--------|
|                                                                                     |      |           | Inch   | cm   | Inch     | cm   | Inch         | cm   |              |     |        |
|  | 12   | SJS512200 | 1.12   | 2.84 | 0.49     | 1.24 | 1.78         | 4.52 | 1.80         | N/A | Blue   |
|                                                                                     |      | SJS512210 |        |      |          |      |              |      |              |     | Red    |
|                                                                                     | 16   | SJS716200 | 1.06   | 2.69 | 0.43     | 1.09 | 1.65         | 4.20 | 1.50         | N/A | Blue   |
|                                                                                     |      | SJS716210 |        |      |          |      |              |      |              |     | Red    |
|                                                                                     | 20   | SJS720200 | 1.03   | 2.61 | 0.39     | 0.99 | 1.70         | 4.32 | 1.20         | N/A | Green  |
|                                                                                     |      | SJS720210 |        |      |          |      |              |      |              |     | Yellow |
|  | 16   | SJS816200 | 1.03   | 2.61 | 0.70     | 1.78 | 1.60         | 4.10 | 4.60         | A   | Red    |
|                                                                                     |      | SJS816210 |        |      |          |      |              |      |              | B   | White  |
|                                                                                     |      | SJS816220 |        |      |          |      |              |      |              | C   | Blue   |
|                                                                                     | 20   | SJS820200 | 0.99   | 2.51 | 0.70     | 1.78 | 1.68         | 4.27 | 3.70         | A   | Red    |
|                                                                                     |      | SJS820210 |        |      |          |      |              |      |              | B   | White  |
|                                                                                     |      | SJS820220 |        |      |          |      |              |      |              | C   | Blue   |

### TECHNICAL SPECIFICATIONS

| MATERIALS               |                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------|
| Insulator Body          | Polyamide 6/6 (Nylon)                                                                               |
| Grommet                 | Silicone Rubber                                                                                     |
| Contact Retainers       | Stainless Steel                                                                                     |
| PERFORMANCE             |                                                                                                     |
| Temperature Range       | - 65°C to + 125°C                                                                                   |
| Insulation Resistance   | > 5000 Megaohms Min.                                                                                |
| Dielectric Withstanding | 1500Vrms @ Sea Level                                                                                |
| Voltage                 | 600Vrms @ 45,000 Ft. Altitude                                                                       |
| Current Ratings         | Size 20: 7.5 Amps<br>Size 16: 13 Amps                                                               |
| Sealing                 | Size 16 & 20: EIA-364-03B (12,000 Ft.)<br>Size 12: EIA-364-D, Method 3                              |
| Vibration               | Size 16 & 20: EIA-364-28D (Test Condition V, E)<br>Size 12: EIA-364-D (Method 28, Test Condition V) |
| Flammability            | UL94, V0.                                                                                           |
| CTI Rating              | UL746B, 600V                                                                                        |
| Contact Retention       | Size 16 & 20: EIA-364-29B (20 lb)<br>Size 12: 30 lbs                                                |

### CONTACTS

|            |         |                        |
|------------|---------|------------------------|
| Plug       | Size 12 | M39029/56-353 (socket) |
|            | Size 16 | M39029/56-352 (socket) |
|            | Size 20 | M39029/56-351 (socket) |
| Receptacle | Size 12 | M39029/58-365 (pin)    |
|            | Size 16 | M39029/58-364 (pin)    |
|            | Size 20 | M39029/58-363 (pin)    |

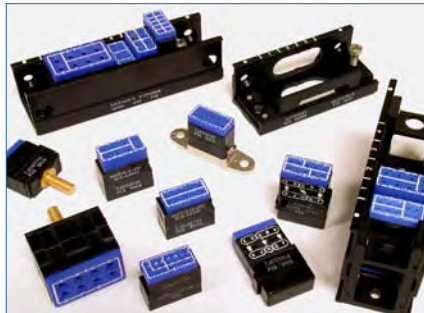
(Contacts must be ordered separately. Three pin and socket sets are required per triple QuickConnect and one pair per single.)

### TERMINATION ACCESSORIES

| Wire Size | Crimp Tool  |                                    | Installation/ Removal Tool |
|-----------|-------------|------------------------------------|----------------------------|
|           | Basic Tool  | Positioner                         |                            |
| 12        | M22520/1-01 | M22520/1-04                        | M81969/14-04               |
| 16        | M22520/1-01 | M22520/1-04                        | M81969/14-03               |
| 20        | M22520/1-01 | M22520/1-04                        | M81969/14-02               |
| 22D       | M22520/2-01 | M22520/2-09 (P)<br>M22520/2-07 (S) | M81969/14-01               |

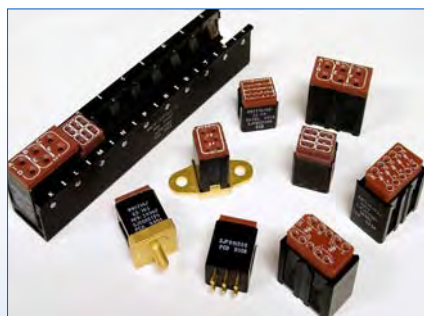
## Related Products from Amphenol Pcd

### Junction Modules



#### MIL-T-81714 Series I

Track-mounted Terminal Junction Modules with multiple bussing and electronic package options.



#### MIL-T-81714 Series II

High Density, low weight, environmentally sealed Socket Junction Module with lightweight composite track.

### Product Customization

Amphenol Pcd welcomes inquiries for application-specific modifications to the standard SJS QuickConnect series. The environmentally-sealed series is continuously expanding to meet current and future customer needs. Application-specific customization include:

Varied Wire Gauges  
Custom Colors  
Unique Markings

High Power  
Electronic Packaging  
Increased Channel Sizes

Alternate Contacts  
Distinct Configurations  
Alternative Alterations

### Wire Splices



#### Inline Splices

Single and Multi-Contact Inline Wire Splices to MIL-T-817814 Series I and II.



#### Electronic Splices

Electronic Component Splices available with a variety of diodes, fuses, capacitors, and resistors. Designed to meet 1119 to NSA specifications.

### Other Products from Amphenol Pcd



#### High Performance P-Clamps

- Victrex PEEK polymer
- Non-corrosive; Non-conductive
- Overmolded silicone cushions

Contact us for more information



#### Backshells for Circular Connectors

- QPL certified to AS85049 standard
- Complete range of products
- Short lead-time

Contact us for more information

### CONTACT INFORMATION

#### Amphenol Pcd Headquarters

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Beverly, MA 01915 USA  
email: [quickconnect@amphenolpcd.com](mailto:quickconnect@amphenolpcd.com)  
Tel: 978-624-3400

# Amphenol

CONNECTING PEOPLE + TECHNOLOGY

Rev. A (09-15)

|       | Plug                                                                                             | Receptacle                                                                                       | Misc                                                                                             | Misc 2                                                                                           | Contact       | Plug Length (in) | Receptacle Length (in) | Plug Diameter (in) | Receptacle Diameter (in) | Mated Weight (grams)        |
|-------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------|------------------|------------------------|--------------------|--------------------------|-----------------------------|
| 1-Pin | <br>SJSXXX1X0   | <br>SJSXXX2X0   |                                                                                                  |                                                                                                  | 12            | 1.21             | 1.12                   | 0.45               | 0.49                     | 3.99                        |
|       |                                                                                                  |                                                                                                  |                                                                                                  |                                                                                                  | 16            | 1.13             | 1.06                   | 0.39               | 0.43                     | 3.20                        |
|       |                                                                                                  |                                                                                                  |                                                                                                  |                                                                                                  | 20            | 1.11             | 1.03                   | 0.39               | 0.39                     | 2.60                        |
| 2-Pin | <br>SJS830250   | <br>SJS830270   |                                                                                                  |                                                                                                  | 22            | 0.77             | 1.43                   | 0.39               | 0.32                     | 2.60                        |
| 3-Pin | <br>SJSXXX1X0   | <br>SJSXXX2X0   |                                                                                                  |                                                                                                  | 16            | 1.12             | 1.03                   | 0.70               | 0.70                     | 9.90                        |
|       |                                                                                                  |                                                                                                  |                                                                                                  |                                                                                                  | 20            | 1.08             | 0.99                   | 0.70               | 0.70                     | 8.00                        |
| 3-Pin | <br>SJS840310   | <br>SJS840300   | <br>SJS840330   | <br>SJS840320   | 16            | 0.78             | 0.74                   | 0.60               | 0.55                     | 4.50<br>(6.00; panel mount) |
| 4-Pin | <br>SJS840410   | <br>SJS840400   |                                                                                                  |                                                                                                  | 16            | 0.78             | 0.74                   | 0.60               | 0.55                     | 4.60                        |
| 5-Pin | <br>SJS840510 | <br>SJS840500 | <br>SJS840520 | <br>SJS445000 | 22            | 0.78             | 0.74                   | 0.60               | 0.55                     | 5.00<br>(6.40; panel mount) |
| 8-Pin | <br>SJS830100 | <br>SJS830200 |                                                                                                  |                                                                                                  | 22            | 0.77             | 0.74                   | 0.52               | 0.47                     | 3.09                        |
| 9-Pin | <br>SJS840910 | <br>SJS840900 |                                                                                                  | <br>SJS991000 | 4—16<br>5— 22 | 0.78             | 0.74                   | 0.71               | 0.65                     | 6.4                         |