

# Amphenol

## New from Amphenol PCD - Luminus Series connectors

Small. Powerful. Connector.

More Configurations  
More Colors  
More Accessories  
More Choices

**Added Value...**

The Luminus Series are small, cost-effective connectors that are highly reliable and simple to use. With multiple product options to choose from, they meet MIL-T-81714, accept AS39029 contacts, and are environmentally-sealed. Ideal for where space is limited, these innovative connectors feature a locking mechanism that ensures stability, and are suitable for blind-mating.

### Benefits at a Glance

#### MIL-T-81714

Developed to meet MIL-T-81714 requirements.

#### Multiple Keying Positions

Ensures proper connectivity.

#### Quick, Simple Connection

Makes wire installation and maintenance easy and efficient.

#### Multiple Configurations and Accessories

Flexible product options.

#### Interfacial and Triple-Barrier Seal

Enables environmental sealing.

#### Durability

Rugged polyamide housings; 100 mating cycles.

#### AS39029 Contacts

Accepts standard AS39029 contacts (formerly MIL-C-39029);  
(Stamp and Form contacts coming soon...)

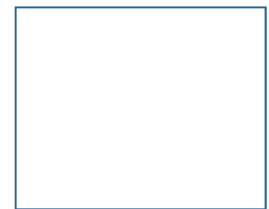
#### Blind-Mate Connection

Polarization feature enables simple, blind mating.



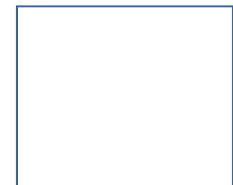
(Actual Size of 8-Pin, Size 22)

#### Other High Performance Products



#### Quick Mount Relay Sockets

- Quick and easy installation
- No hardware; Reduces FOD
- Lightweight



#### High Performance P-Clamps

- PEEK polymer
- Non-corrosive
- Non-conductive
- Overmolded silicone cushions
- Lightweight

Contact us for more information.

## Twist & Lock



### TECHNICAL SPECIFICATIONS

MATERIALS	
Insulator Body	Polyamide 6/6 (Nylon)
Grommet	Silicone Rubber
Contact Retainer	Stainless Steel
PERFORMANCE	
Temp Range	- 65°C to + 125°C
Insulation Resistance	5000 Megaohms Min. @ 500 VDC
Dielectric Withstanding	1000 VRMS, 60 Hz @ Sea Level
	300 VRMS, 60 Hz @ 50,000 ft.
Current Ratings	Size 16: 13 Amps Size 20: 7.5 Amps Size 22: 5 Amps
Durability	100 Mating Cycles
Temp Cycling	5 (1) Hour Cycles: - 65°C to + 125°C
Shock	100G Sawtooth, 6MS
Vibration	10-2000 Hz, 15G Peak
Salt Spray	5% Salt Spray @ 95°F for 48 Hours
Humidity	10 Days @ 25°C to 65°C, 80-90% RH

### 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) M22520/2-07 (S)	M81969/14-01

### Plug Specifications

Pin Count	Contact Size	Part No. W/ Contacts	Part No. W/O Contacts	L (in)	D (in)	Mated Length (in)	Weight (oz)	Key	Color	Cradle	Mating Half W/ Contacts	Mating Half W/O Contacts	Shell Size *	Contact part number
2-Pin	22D	SJS830251	SJS830250	0.767	0.392	1.260	0.053	N/A	Black	N/A	SJS830271	SJS830270	5	M39029/57-354; socket
3-Pin	16	SJS840311	SJS840310	0.784	0.602	1.270	0.092	N/A	White	SJS445000	SJS840301 SJS840321	SJS840300 SJS840320	8	M39029/57-358; socket
		SJS840341	SJS840340	0.784	0.602	1.260	0.092	ALT	Black	SJS445000	SJS840331 SJS840351	SJS840330 SJS840350	8	
4-Pin	16	SJS840411	SJS840410	0.779	0.392	1.270	0.053	N/A	Black	N/A	SJS830231	SJS830230	5	M39029/57-354; socket
5-Pin	22D	SJS860511	SJS860510	0.742	0.602	1.270	0.092	N/A	White	SJS445000	SJS860501 SJS860521	SJS860500 SJS860520	8	M39029/57-354; socket
		SJS870511	SJS870510	0.742	0.602	1.270	0.088	N/A		N/A	SJS870521	SJS870520	8	M39029/58-360; pin
8-Pin	22D	SJS831100	SJS830100	0.757	0.524	1.260	0.061	A	Black	SJS883000	SJS831200 SJS831220	SJS830200	7	M39029/57-354; socket
		SJS831101	SJS830101	0.757	0.524	1.260	0.061	B	Green		SJS831201 SJS831221	SJS830201 SJS830221	7	
		SJS831102	SJS830102	0.757	0.524	1.260	0.061	C	Yellow		SJS831202 SJS831222	SJS830202 SJS830222	7	
9-Pin	(4) 16, (5) 22D	SJS860911	SJS860910	0.741	0.714	1.270	0.116	N/A	White	SJS991000	SJS860901	SJS860900	10	M39029/57-354; -358; socket

\* Shell size: see back page

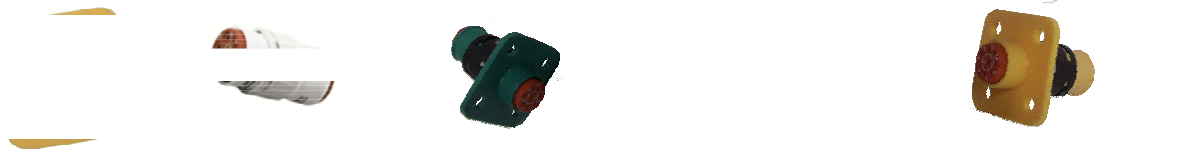
### Receptacle Specifications

Pin Count	Contact Size	Part No. W/ Contacts	Part No. W/O Contacts	L (in)	D (in)	Mated Length (in)	Weight (oz)	Key	Color	Cradle	Mating Half W/ Contacts	Mating Half W/O Contacts	Shell Size*	Contact part number
2-Pin	22D	SJS830271	SJS830270	0.740	0.318	1.260	0.039	N/A	Black	N/A	SJS830251	SJS830250	5	M39029/58-360; pin
3-Pin	16	SJS840301	SJS840300	0.755	0.550	1.270	0.067	N/A	White	SJS445000	SJS840311	SJS840310	8	M39029/58-364; pin
		SJS840351	SJS840350	0.755	0.550	1.270	0.067	ALT	Black		SJS840341	SJS840340	8	
		SJS840321 (Panel Rec.)	SJS840320 (Panel Rec.)	0.755	0.520	1.270	0.116	N/A	White	N/A	SJS840311	SJS840310	8	
		SJS840331 (Panel Rec.)	SJS840330 (Panel Rec.)	0.755	0.520	1.270	0.116	ALT	Black	N/A	SJS840341	SJS840340	8	
4-Pin	16	SJS840401	SJS840400	0.755	0.318	1.260	0.039	N/A	Black	N/A	SJS830211	SJS830210	5	M39029/58-360; pin
		SJS840411	SJS840410	0.755	0.550	1.270	0.067	N/A	White	SJS445000	SJS840411	SJS840410	8	M39029/58-364; pin
5-Pin	22D	SJS860501	SJS860500	0.755	0.550	1.270	0.088	N/A	White	SJS445000	SJS860511	SJS860510	8	M39029/58-360; pin
		SJS860521 (Panel Rec.)	SJS860520 (Panel Rec.)	0.755	0.520	1.270	0.127	N/A		N/A	SJS860511	SJS860510	8	
		SJS870521	SJS870520	0.744	0.528	1.270	0.134	N/A		N/A	SJS870511	SJS870510	8	
8-Pin	22D	SJS831200	SJS830200	0.768	0.448	1.260	0.048	A	Black	SJS883000	SJS831100	SJS830100	7	M39029/58-360; pin
		SJS831201	SJS830201	0.768	0.448	1.260	0.048	B	Green		SJS831101	SJS830101	7	
		SJS831202	SJS830202	0.768	0.448	1.260	0.048	C	Yellow		SJS831102	SJS830102	7	
		SJS831220 (Panel Rec.)	SJS830220 (Panel Rec.)	0.768	0.448	1.270	0.089	A	Black	N/A	SJS830110	SJS830100	7	
		SJS831221 (Panel Rec.)	SJS830221 (Panel Rec.)	0.768	0.448	1.270	0.089	B	Green		SJS830111	SJS830101	7	
		SJS831222 (Panel Rec.)	SJS830222 (Panel Rec.)	0.768	0.448	1.270	0.089	C	Yellow		SJS830112	SJS830102	7	
9-Pin	(4) 16, (5) 22D	SJS860901	SJS860900	0.755	0.651	1.270	0.113	N/A	White	SJS991000	SJS860911	SJS860910	10	M39029/58-360; -364; pin

\* Shell size: see back page

### Cradle Specifications

Part No.	Length (in)	Weight (oz)	Height (in)	Color	For Shell Size
SJS445000	1.031	0.095	0.701	White	8
SJS883000	1.031	0.099	0.701	Black	7
SJS991000	1.031	0.099	0.846	White	10



## Push & Pull

### Product Description

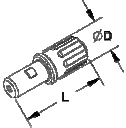
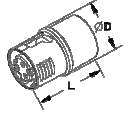
#### 1-Pin:

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 lock, and "twist and pull" to release.

#### 3-Pin:

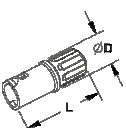
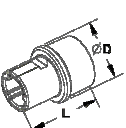
Developed to meet MIL-T-81714 criteria and available in three colors, these products feature molded-in polarizing keys to enable blind-mate connections. Simply push the part together to mate and lock, and "squeeze and pull" to release.

### Plug Specifications

Pin Count	Contact Size	Part No. W/ Contacts	Part No. W/O Contacts	Length (in)	Diameter (in)	Mated Length (in)	Weight (oz)	Key	Color	Mating Half W/ Contacts	Mating Half W/O Contacts	Shell Size*	Contact Part No.
1-Pin 	12	SJS512101	SJS512100	1.209	0.449	1.780	0.077	N/A	Blue	SJS512201	SJS512200	7	M39029/56-353; socket
		SJS512111	SJS512110						Red	SJS512211	SJS512210	7	
	16	SJS716101	SJS716100	1.110	0.390	1.701	0.049	N/A	Blue	SJS716201	SJS716200	6	M39029/56-352; socket
		SJS716111	SJS716110						Red	SJS716211	SJS716210	6	
	20	SJS720101	SJS720100	1.079	0.701	1.681	0.152	N/A	Green	SJS720201	SJS720200	6	M39029/56-351; socket
		SJS720111	SJS720110						Yellow	SJS720211	SJS720210	6	
3-Pin 	16	SJS816101	SJS816100	1.118	0.701	1.614	0.187	A	Red	SJS816201	SJS816200	11	M39029/56-352; socket
		SJS816111	SJS816110					B	White	SJS816211	SJS816210	11	
		SJS816121	SJS816120					C	Blue	SJS816221	SJS816220	11	
	20	SJS820101	SJS820100	1.079	0.701	1.681	0.152	A	Red	SJS820201	SJS820200	8	M39029/56-351; socket
		SJS820111	SJS820110					B	White	SJS820211	SJS820210	8	
		SJS820121	SJS820120					C	Blue	SJS820221	SJS820220	8	

\* Shell size: see back page

### Receptacle Specifications

Pin Count	Contact Size	Part No. W/ Contacts	Part No. W/O Contacts	Length (in)	Diameter (in)	Mated Length (in)	Weight (oz)	Key	Color	Mating Half W/ Contacts	Mating Half W/O Contacts	Shell Size*	Contact Part No.
1-Pin 	12	SJS512201	SJS512200	1.118	0.488	1.780	0.063	N/A	Blue	SJS512101	SJS512100	7	M39029/58-365; pin
		SJS512211	SJS512210						Red	SJS512111	SJS512110	7	
	16	SJS716201	SJS716200	1.059	0.429	1.654	0.053	N/A	Blue	SJS716101	SJS716100	6	M39029/58-364; pin
		SJS716211	SJS716210						Red	SJS716111	SJS716110	6	
	20	SJS720201	SJS720200	1.028	0.390	1.701	0.042	N/A	Green	SJS720101	SJS720100	6	M39029/58-363; pin
		SJS720211	SJS720210						Yellow	SJS720111	SJS720110	6	
3-Pin 	16	SJS816201	SJS816200	1.028	0.701	1.614	0.162	A	Red	SJS816101	SJS816100	11	M39029/58-364; pin
		SJS816211	SJS816210					B	White	SJS816111	SJS816110	11	
		SJS816221	SJS816220					C	Blue	SJS816121	SJS816120	11	
	20	SJS820201	SJS820200	0.988	0.701	1.681	0.131	A	Red	SJS820101	SJS820100	8	M39029/58-363; pin
		SJS820211	SJS820210					B	White	SJS820111	SJS820110	8	
		SJS820221	SJS820220					C	Blue	SJS820121	SJS820120	8	

\* Shell size: see back page

### TECHNICAL SPECIFICATIONS

#### MATERIALS

Insulator Body	Polyamide 6/6 (Nylon)
Grommet	Silicone Rubber

Contact Retainer	Stainless Steel
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#### PERFORMANCE

Temperature Range	- 65°C to + 125°C
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Insulation Resistance	> 5000 Megaohms Min.
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Dielectric Withstanding	1500Vrms @ Sea Level
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Current Ratings	Size 12: 23 Amps Size 16: 13 Amps Size 20: 7.5 Amps
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Sealing	Size 16 & 20: EIA-364-03B (12,000 Ft.) Size 12: EIA-364-D, Method 3
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Vibration	Size 16 & 20: EIA-364-28D (Test Condition V, E) Size 12: EIA-364-D (Method 28, Test Condition V)
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Flammability	UL94, V0.
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CTI Rating	UL746B, 600V
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Contact Retention	Size 16 & 20: EIA-364-29B (20 lb) Size 12: 30 lbs
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### 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

## Shell Size Designation

SJS830200

Shell Sizes: determined by the overall diameter (O.D.) of the receptacle in 16ths of an inch.

Example: SJS830100/SJS830200

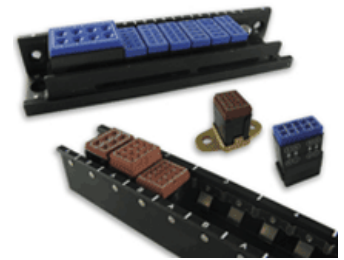
O.D. of receptacle SJS830200 at mating interface is 0.448."

$$\begin{aligned} \text{Shell Size} &= (\text{O.D.}) / (1/16") \\ &= (0.448") / (1/16") \\ &= 7.168 \\ &= 7 \end{aligned}$$

Round the closest whole number to designate the mated pair as Shell Size 7.

← O.D. = 0.448" →

### Other Products from Amphenol PCD



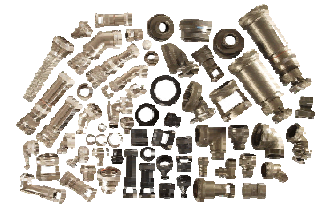
#### Junction Modules

- Meet MIL-T-81714
- Multiple configurations
- Environmentally-Sealed



#### SIMPLUS

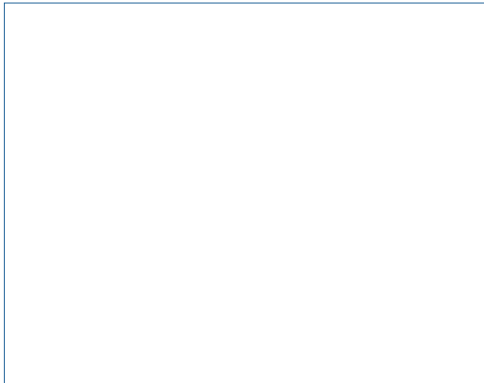
- Standard and custom configurations
- Easy to install
- Interchangeable modules
- Polarized (A, B, C, D, N)



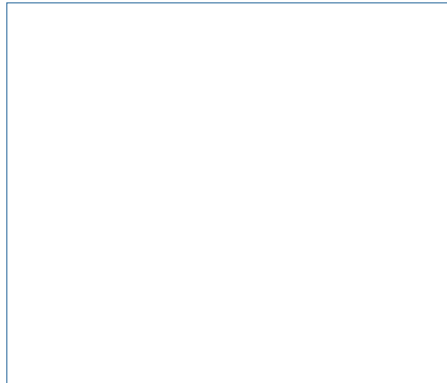
#### Backshells for Circular Connectors

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

## Mil-T-81714 Wire Splices



- Splices developed to MIL-T-81714
- Single and Multi-Contact Inline wire
- Contact size available: 16, 20, 22



- Designed to meet 1119 to NSA specifications
- Electronic Component Splices: diodes, fuses, capacitors, and resistors available

### Product Customization

Amphenol PCD welcomes inquiries for application-specific modifications to the standard Luminus Series connectors. This 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

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CONNECTING PEOPLE + TECHNOLOGY

REV DEC 2011