Luminus Series | Amphenol Pcd

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.

John Whittaker

jwhittaker@amphenolpcd.com

978.624.3447 ● 978.882.3609

Hilary Juntwait

hjuntwait@amphenolpcd.com

978.624.3459

Amphenol Pcd

72 Cherry Hill Dr. ● Beverly, MA. 01915

978.624.3400 ● info@amphenolpcd.com

www.amphenolpcd.com

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

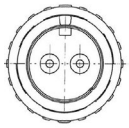
Materials & Specifications

	Push & Pull	Twist & Lock
Materials (Custom Material Available)	Insulator Body: Polyamide 6/6 (Nylon)	Insulator Body: Polyamide 6/6 (Nylon)
	Grommet: Silicone Rubber	Grommet: Silicone Rubber
	Contact Retainer: Stainless Steel	Contact Retainer: Stainless Steel
	Contacts: Copper Alloy Gold Plated	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	5000 MΩ Min. @ 500 VDC	5000 MΩ Min. @ 500 VDC
Dielectric Withstanding	1500VAC, 60hz @ Sea Level	1500 VAC, 60 Hz @ Sea Level, 1ma
	600VAC, 60hz @45,000 ft	300 VAC, 60 Hz @ 70,000 ft, 2 ma
		300 VAC, 60 Hz @ 100,000 ft, 2 ma
Durability	50 mating cycles	500 mating cycles
Altitude Immersion	5% salt solution, 55k ft, DWV 1500VA	5% salt solution
		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	Contact factory	-65˚C to 200˚C
Vibration	10-2000 Hz, 15G Peak	10-2000 Hz, 15G Peak
Shock	Contact factory	100G Sawtooth, 6MS
Salt Spray	Contact factory	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	Contact factory	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

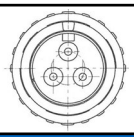
Shell Sizes

05 (max dia: 0.318)

2, size 22
Twist & Lock

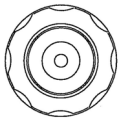


3, size 22
Twist & Lock



06 (max dia: 0.390)

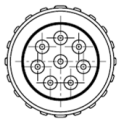
1, size 16 & 20
Push & Pull



07 (max dia: 0.448)

6, size 22
Twist & Lock

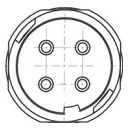
8, size 22
Twist & Lock



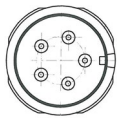
1, size 12
Push & Pull

08 (max dia: 0.528)

4, size 16
Twist & Lock

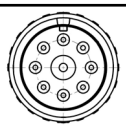


5, size 22
Twist & Lock

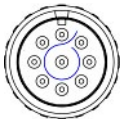


08 (max dia: 0.528)

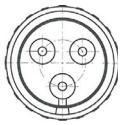
9: 1, size 16; 8 size 22
Twist & Lock



9, size 22
Twist & Lock

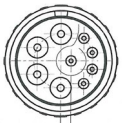


3, size 16 Twist & Lock
3, size 20 Push & Pull



10 (max dia: 0.630)

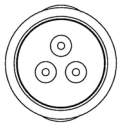
9: 4, size 16; 5 size 22
Twist & Lock



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

11 (max dia: 0.700)

3, size 16
Push & Pull



14 (max dia: 0.875)

25, size 22
Twist & Lock

Accessories

*Custom Configurations Available

Self-Adhesive Cradle

Screw Mount Cradle with Screw

One-Sided Strain Relief

90˚, 45˚, Straight Backshells

Receptacles

Inline

Inline Rectangular Flange

Panel Circular Flange

Pegasus Series (Metalized EMI Shielding)

Part Numbering (Twist & Lock)

Plugs

Part Number	Type	Color	Contact Qty	Contact	Shell Size	Mating Half	Self-Adh Cradle	Screw Mount Cradle	Strain Relief
SJS830250	inline	black	2	22	5	SJS830270	SJS257000	n/a	n/a
SJS830210	inline	black	3	22	5	SJS830230	SJS257000	n/a	n/a
SJS840310	inline & panel mount (circ)	white	3	16	8	SJS840300/320	SJS445000	SJS450100	n/a
SJS840340	panel alt key (circ)	black	3	16	8	SJS840330/350	SJS445000	SJS450100	n/a
SJS840410	inline	white	4	16	8	SJS840400	SJS445000	SJS450100	n/a
SJS860510	inline & panel mount (circ)	white	5	22	8	SJS860500/520	SJS445000	SJS450100	n/a
SJS870510*	panel mount (circ)	white	5	22	8	SJS870520	SJS445000	SJS450100	n/a
SJS861700	inline	black	6	22	7	SJS861800	SJS883000	SJS450250	SJS450300
SJS830100	inline & panel mount (sqr)	black	8	22	7	SJS830200/220	SJS883000	SJS450250	SJS450300
SJS830101	inline & panel mount (sqr)	green	8	22	7	SJS830201/221	SJS883000	SJS450250	SJS450300
SJS830102	inline & panel mount (sqr)	yellow	8	22	7	SJS830202/222	SJS883000	SJS450250	SJS450300
SJS860100	inline	white	9	16/22	8	SJS860200	SJS445000	SJS450100	n/a
SJS860910	inline	white	9	16/22	10	SJS860900	SJS991000	n/a	n/a
SJS862100	inline	black	9	22	8	SJS862200	SJS445000	SJS450100	n/a
SJS861100	inline	white	10	16/22	10	SJS861200	SJS991000	n/a	n/a
SJS861300	inline	white	12	22	8	SJS861400	SJS445000	SJS450100	n/a
SJS862300	inline	white	3	20	7	SJS862400	SJS883000	SJS450250	SJS450300
SJS425110	inline	black	25	22	14	SJS425120	n/a	n/a	n/a
SJS112110	inline	black	12	22	11	SJS112120	n/a	n/a	n/a

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

Receptacles

Part Number	Type	Color	Contact Qty	Contact Size	Shell Size	Mating Half	Self-Adh Cradle	Screw Mount Cradle	Strain Relief
SJS830270	inline	black	2	22	5	SJS830250	SJS257000	n/a	n/a
SJS830230	inline	black	3	22	5	SJS830210	SJS257000	n/a	n/a
SJS840300	inline	white	3	16	8	SJS840310	SJS445000	SJS450100	n/a
SJS840350	inline alt key	black	3	16	8	SJS840340	SJS445000	SJS450100	n/a
SJS840320	panel mount (circ)	white	3	16	8	SJS840310	SJS445000	SJS450100	n/a
SJS840330	panel mount alt key (circ)	black	3	16	8	SJS840340	SJS445000	SJS450100	n/a
SJS840400	inline	white	4	16	8	SJS840410	SJS445000	SJS450100	n/a
SJS860500	inline	white	5	22	8	SJS840510	SJS445000	SJS450100	n/a
SJS860520	panel mount (circ)	white	5	22	8	SJS840510	SJS445000	SJS450100	n/a
SJS870520*	panel mount (circ)	white	5	22	8	SJS870510	SJS445000	SJS450100	n/a
SJS861800	inline	black	6	22	7	SJS861700	SJS883000	SJS450250	SJS450300
SJS830200	inline	black	8	22	7	SJS830100	SJS883000	SJS450250	SJS450300
SJS830201	inline alt key	green	8	22	7	SJS830101	SJS883000	SJS450250	SJS450300
SJS830202	inline alt key	yellow	8	22	7	SJS830102	SJS883000	SJS450250	SJS450300
SJS830220	panel mount (sqr)	black	8	22	7	SJS830100	n/a	n/a	n/a
SJS830221	panel mount (sqr)	green	8	22	7	SJS830101	n/a	n/a	n/a
SJS830222	panel mount (sqr)	yellow	8	22	7	SJS830102	n/a	n/a	n/a
SJS860200	inline	white	9	16/22	8	SJS860100	SJS445000	SJS450100	n/a
SJS860900	inline	white	9	16/22	10	SJS860910	SJS991000	n/a	n/a
SJS862200	inline	black	9	22	8	SJS862100	SJS445000	SJS450100	n/a
SJS861200	inline	white	10	16/22	10	SJS861100	SJS991000	n/a	n/a
SJS861400	inline	white	12	22	8	SJS861300	SJS445000	SJS450100	n/a
SJS862400	inline	white	3	20	7	SJS862300	SJS883000	SJS450250	SJS450300
SJS425120	inline	black	25	22	14	SJS425110	n/a	n/a	n/a
SJS425160	jamnut	black	25	22	14	SJS425110	n/a	n/a	n/a
SJS112120	inline	black	12	22	11	SJS112110	n/a	n/a	n/a
SJS112160	jamnut	black	12	22	11	SJS112110	n/a	n/a	n/a
SJS708170	inline, oval flange	black	8	22	7	SJS830100	n/a	n/a	n/a

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

Part Numbering (Push & Pull)

Plugs

Part Number	Type	Color	Key	Contact Qty	Contact Size	Shell Size	Mating Half	Strain Relief
SJS512100	inline	blue	n/a	1	12	7	SJS512200	n/a
SJS512110	inline alt key	red	n/a	1	12	7	SJS512210	n/a
SJS716100	inline	blue	n/a	1	16	6	SJS716200	n/a
SJS716100	inline alt key	red	n/a	1	16	6	SJS716210	n/a
SJS720100	inline	blue	n/a	1	20	6	SJS720200	n/a
SJS720110	inline alt key	red	n/a	1	20	6	SJS720210	n/a
SJS816100	inline	red	A	3	16	11	SJS816200	n/a
SJS816110	inline alt key	white	B	3	16	11	SJS816210	n/a
SJS816120	inline alt key	blue	C	3	16	11	SJS816220	n/a
SJS820100	inline	red	A	3	20	8	SJS820200	SJS450400
SJS820110	inline alt key	white	B	3	20	8	SJS820210	SJS450400
SJS820120	inline alt key	blue	C	3	20	8	SJS820220	SJS450400

Receptacles

Part Number	Type	Color	Key	Contact Qty	Contact Size	Shell Size	Mating Half	Strain Relief
SJS512200	inline	blue	n/a	1	12	7	SJS512100	n/a
SJS512210	inline alt key	red	n/a	1	12	7	SJS512110	n/a
SJS716200	inline	blue	n/a	1	16	6	SJS716100	n/a
SJS716210	inline alt key	red	n/a	1	16	6	SJS716110	n/a
SJS720200	inline	blue	n/a	1	20	6	SJS720100	n/a
SJS720210	inline alt key	red	n/a	1	20	6	SJS720110	n/a
SJS816200	inline	red	A	3	16	11	SJS816100	n/a
SJS816210	inline alt key	white	B	3	16	11	SJS816110	n/a
SJS816220	inline alt key	blue	C	3	16	11	SJS816120	n/a
SJS820200	inline	red	A	3	20	8	SJS820100	SJS450400
SJS820210	inline alt key	white	B	3	20	8	SJS820110	SJS450400
SJS820220	inline alt key	blue	C	3	20	8	SJS820120	SJS450400

Part Numbering (Accessories)

Part Number	Series	Color	Length (in)	Height (in)	Weight (g)	Shell Size
SJS257000	Self-Adhesive Cradle	Black	1.033	0.645	2.5	5
SJS445000	Self-Adhesive Cradle	White	1.031	0.701	2.7	8
SJS883000	Self-Adhesive Cradle	Black	1.031	0.701	2.7	7
SJS991000	Self-Adhesive Cradle	White	1.031	0.846	2.8	10
SJS450100	Screw Mount Cradle	Black	1.033	0.982	3.3	8
SJS450250	Screw Mount Cradle	Black	1.033	0.976	3.9	7
SJS450300	Strain Relief	Black	0.95	0.539	0.6	7
SJS450400	Strain Relief	Black	1.00	0.685	0.8	SJS8201xx & SJS8202xx

Contact Information: Machined and Stamped & Formed

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	n/a	M39029/58-365	.012" [0,30mm] @ 30lbf [133N]	100lbf [445N]
	Socket	No	Yes	CNS057359	n/a	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 M22520/7-01	M22520/1-04 (Blue) M22520/7-04	M81969/14-03
	18	10					
	20	7.5					
20	20	7.5	.040 - .083" [1,02 - 2,11mm]	.209 - .240" [5,31 - 6,10mm]	M22520/1-01 M22520/2-01 M22520/7-01	M22520/1-04 (Red) M22520/2-10 M22520/7-08	M81969/14-11
	22	5					
	24	3					
22D	22	5	.030 - .054" [0,76 - 1,37mm]	.141 - .172" [3,58 - 4,37mm]	M22520/2-01 M22520/7-01	M22520/2-06 M22520/7-06	M81969/14-01
	24	3					
	26	2					
	28	1.5					

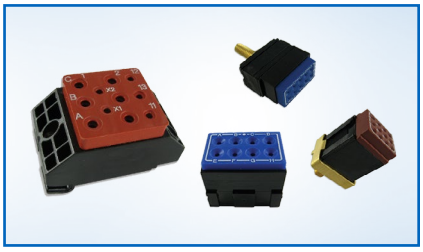
Backshells

Mathew Tharakan
mtharakan@amphenolpcd.com
Office: 978.624.3469
Mobile: 508.932.2214

Jason Wooley
jwooley@amphenolpcd.com
Office: 978.624.3512
Mobile: 978.325.0230

Cable Solutions & Cable Adapters
NEW

Mark Kichar
mkichar@amphenolpcd.com
941.773.8560



Relay Sockets & Junction Modules

John Whittaker
jwhittaker@amphenolpcd.com
Office: 978.624.3447
Mobile: 978.882.3609

Hilary Juntwait
hjuntwait@amphenolpcd.com
978.624.3459

System Attachments

Randy Gautreaux
rgautreaux@amphenolpcd.com
Office: 978.624.3407
Mobile: 978.880.3212

J Matt Sawyer
msawyer@amphenolpcd.com
Office: 978.624.3511
Mobile: 978.880.5590

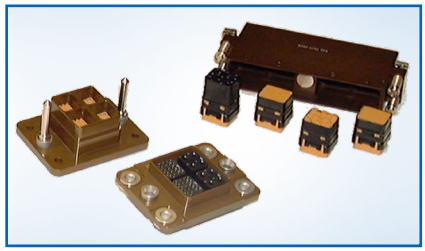
Luminus Series, Rayzor Series & Pegasus Series
NEW

John Whittaker
jwhittaker@amphenolpcd.com
Office: 978.624.3447
Mobile: 978.882.3609

Hilary Juntwait
hjuntwait@amphenolpcd.com
978.624.3459

Terminal Blocks

Russ Smolinsky
rsmolinsky@amphenolpcd.com
Office: 978.624.3436
Mobile: 978.578.9858



SIM

Edward Fritscher
efritscher@amphenolpcd.com
Office: 978.624.3435
Mobile: 978.471.0395

Rectangular

John Whittaker
jwhittaker@amphenolpcd.com
Office: 978.624.3447
Mobile: 978.882.3609

Circular

Dale Sears
dsears@amphenolpcd.com
Office: 978.624.3433
Mobile: 317.513.0327

Jacque Boudreau
jboudreau@amphenolpcd.com
978.624.3513

Waterproof Solutions

Kristina Higgins
khiggins@amphenolpcd.com
Office: 978.624.3473
Mobile: 978.500.9204

Field Bus

Kevin Gay
kgay@amphenolpcd.com
Office: 978.624.3420
Mobile: 978.304.2347

Craig Dresser
cdresser@amphenolpcd.com
Office: 978.624.3428
Mobile: 978.880.5589

Davide Iannello
diannello@amphenolpcd.com
Office: 978.624.3429
Mobile: 978.778.8978

Military Audio /Power

Mathew Tharakan
mtharakan@amphenolpcd.com
Office: 978.624.3469
Mobile: 508.932.2214