



Amphenol Pcd

BEVERLY | LOS ANGELES | MONTREAL



Luminus Series

Amphenol Pcd, a subsidiary of Amphenol Corporation, 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, and Cable Assemblies. 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 hundreds of OEMs around the world, reliant on Amphenol's technical excellence, global network of distributors, and cost-effective solutions for custom systems.



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)
AS39029 Contacts	MIL Spec contacts for broad application compatibility
Stamped & Formed Contacts	For applications where MIL Spec contacts are not necessary; lighter vs. MIL Spec contacts & less expensive
Multiple Keying Positions	Ensures proper connectivity
Multiple Configurations and Accessories	Tailored solutions to application needs
Rugged Polyamide Housings; 500 mating cycles	Durability
Blind-Mate Connection	Enables simple, blind mating; easy assembly
Visual markings	Visual aid for easy assembly
D160, M81714, FAR25 Compliance	Meets demanding military-aerospace environmental conditions

Receptacles

Accessories



*Custom Configurations Available

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, sealevel
		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	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



Insert Availability 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)	1, size 12 Push & Pull	6, size 22 Twist & Lock	8, size 22 Twist & Lock				
08 (max dia: 0.528)	3, sz 16 Twist & Lock 3, sz 20 Push & Pull	4, size 16 Twist & Lock	5, size 22 Twist & Lock	9: 1, sz 16; 8 sz 22 Twist & Lock	9, size 22 Twist & Lock	12, size 22 Twist & Lock	
10 (max dia: 0.630)	9: 4, sz 16; 5 sz 22 Twist & Lock		10: 4, size 16; 6 sz 22 Twist & Lock				
11 (max dia: 0.700)	3, size 16 Push & Pull						

*Shell size is based on diameter of receptacle; diagrams not to scale

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

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



Plugs

Part Numbering (Twist & Lock)

Part Number	Type	Color	Contact Qty	Contact Size	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

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

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

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Other Products

Backshells



Cable Solutions



Circular



Field Bus



Junction Modules



Military Audio/
Power



Rectangular



Relay Sockets



SIM



System Attachments



Terminal Blocks



Waterproof Solutions

