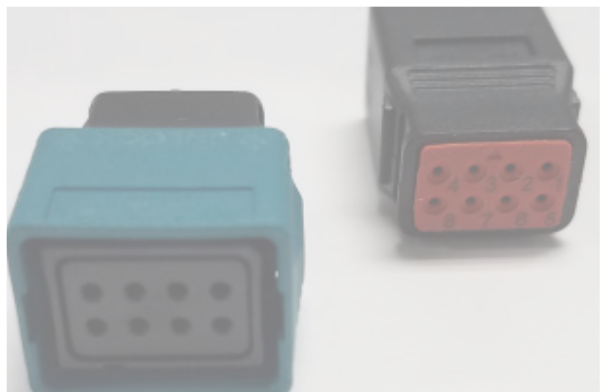
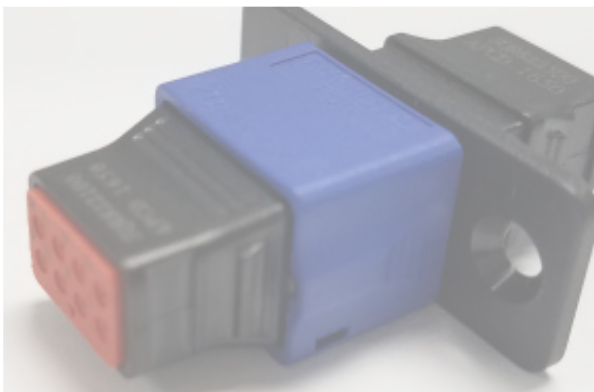
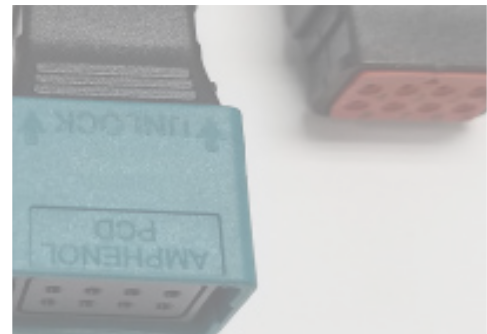


Amphenol Pcd

SOLARIS 
GUIDE 2018



SOLARIS

Description:

SOLARIS is a small, plastic, easy-to-use rectangular connector designed specifically for low and medium power applications. SOLARIS' spring-loaded slide lock mechanism is a snap to use - simply push to lock, and slide to unlock. The slide lock provides convenient single handed & tool-less mating, eliminating the Foreign Object Debris (FOD), found in typical screw mount D-Subs. Each housing has raised finger ridges for a sure grip, and built-in cable tie access hole provides a "zero footprint" method to secure the connector to a bulkhead or cable bundle.

High grade polyetherimide plastic makes SOLARIS suitable for man/machine interfaces with high mating cycles, and provides a wide operating temperature range. Ultrasonically welded components means void free joints, sealing out humidity for long lasting, crack free operation over the life of the installation. Interfacial seal and wire seal grommets provide IP67 sealing, meaning your application is free from dust, moisture and corrosion when exposed to the real world.

Features and Benefits:

Low profile rectangular form factor-Less than 0.5" tall. Fits into seat arms, backs, tray tables and compartments, as well as lower profile ceiling and side panels

Slide Latch-Easy to use, FOD free, tool-less mating

Integrated Tie Wrap hole- Zero footprint tie down to pipes, bundles and bulkheads

Interfacial & Wire sealing- IP67 performance for use in human interface, wet and damp applications

Polyetherimide Housings-High temperature resistance, chemical resistance, long working life & high mating cycles

Integral boot ridge-Integrated feature for tying off protective sheathing and braids w/o adding backshells or saddle clamps

Snap-on strain relief-Tool-less, FOD free accessory that helps prevent wear and tear at cable / connector ingress

Reverse gender capability- Plugs & Receptacles may be configured with pins or sockets, allowing live power connector to be either plug or receptacle, depending on application requirements

Typical Applications:

- Aerospace Lighting
- In-Flight Entertainment (IFE)
- Power & Signal Distribution
- Cabin Service Systems
- Military Aerospace - Rotorcraft
- UAV's

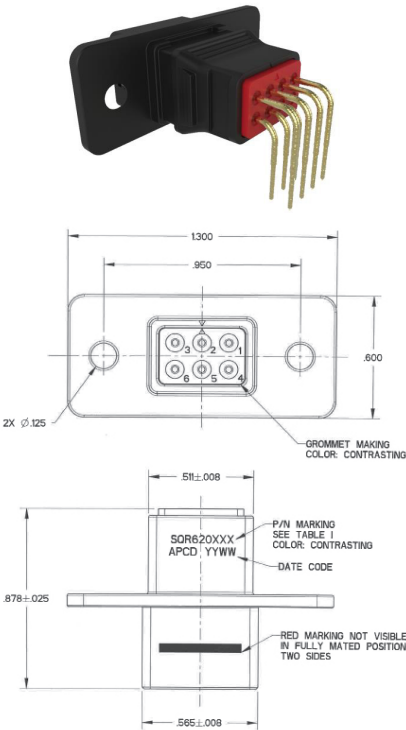


Key Specifications

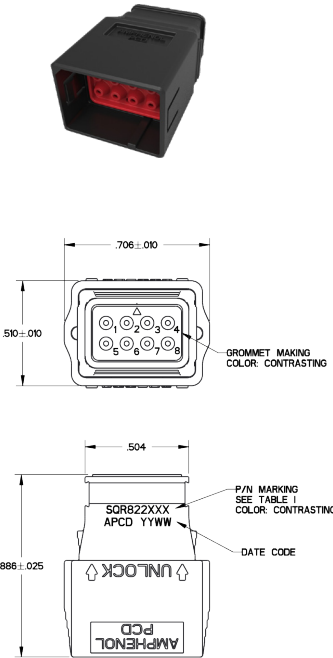
Shock	100G sawtooth, 6msec
Vibration	15G peak sinusoidal, 16G peak random
Flammability & Toxicity	Meets FAR Par 25 Appendix F, Part 1
Sealing	IP67 when mated
Fluid Resistance	Skydrol, Ethylene Glycol, Jet A, more
DWV	1500Vac @ sea level, 300Vac @ 70k ft
IR	500Vdc
Salt Spray	5% solution @ 70K ft
Temperature	-65C to +150C
Mating Cycles	500 minimum
Contacts	M39029/58 & /57 size 16, 20, & 22D
Keying	4 hard coded keys, color matched to housin

Size	Pin	Socket	Power	Sealing Plug
22	m39029/58360	m39029/57-354	5a	MS27488-22-1
20	m39029/58-363	m39029/57-357	7.5a	MS27488-20-1
16	m39029/58-364	m39029/57-358	13.5a	MS27488-16-1

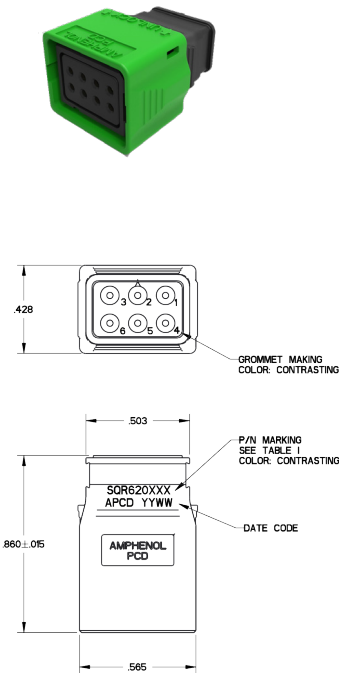
Front Flange Mount
Shell size 2



Receptacle
Shell size 2



Plug
Shell size 2



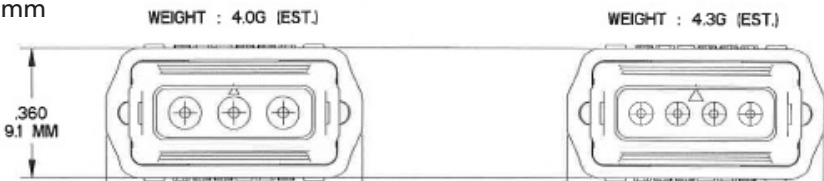
Configuration & Pin Count

20 awg
Weight: 4.0g

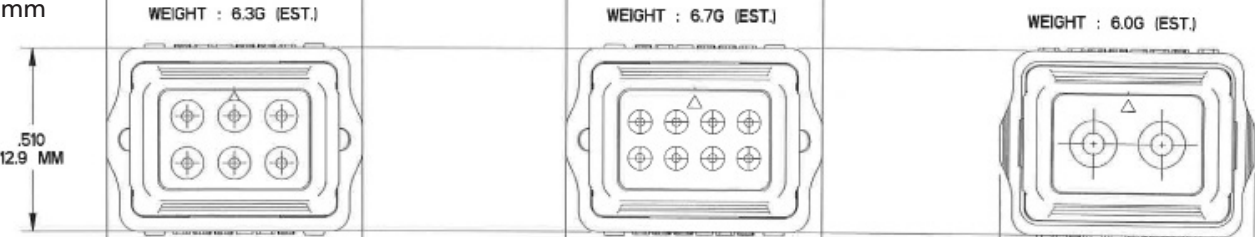
22 awg
Weight: 4.3g

16 awg

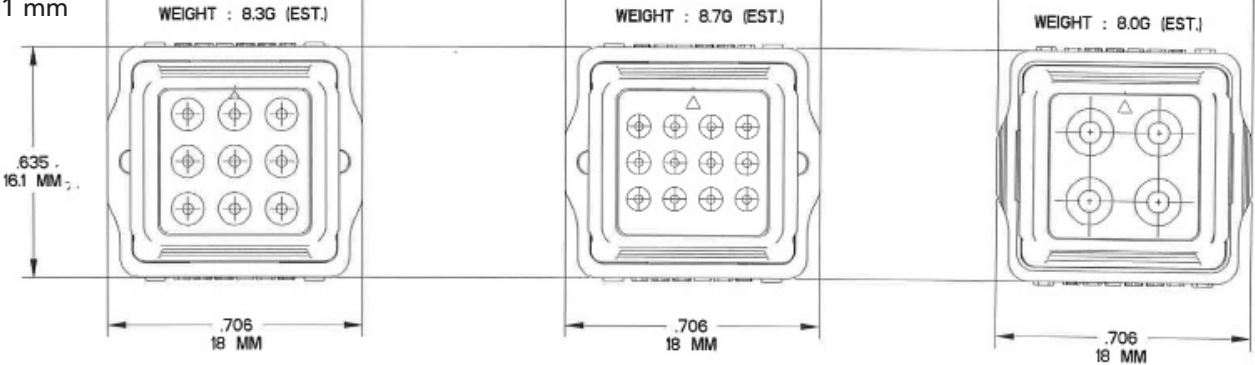
Shell Size 1
0.360"; 9.1mm



Shell Size 2
0.510"; 13 mm



Shell Size 3
0.635"; 16.1 mm



Standard Configurations

	SQR	X	XX	X	X	X
--	-----	---	----	---	---	---

Series Prefix

Number of Contacts

3

4

6

7

9

C=12

Contact Size

16: Size 16

20: Size 20

22: Size 22

Shell Size

1: Plug

2: Receptacle

3: <Future>

4: <Future>

5: Front Mount Flange Receptacle-PCB Mount

6: <Future>

7: Rear Mount Flange Receptacle-PCB Mount

8: <Future>

Keying

0: A Keying Pins (Black)

1: B Keying Pins (Green)

2: C Keying Pins (White)

3: D Keying Pins (Amber)

4: E Keying Pins

5: A Keying Sockets (Black)

6: B Keying Sockets (Green)

7: C Keying Sockets (White)

8: D Keying Sockets (Amber)

9: E Keying Sockets

With / Without Contacts

0: Without contacts

1: With crimp contacts

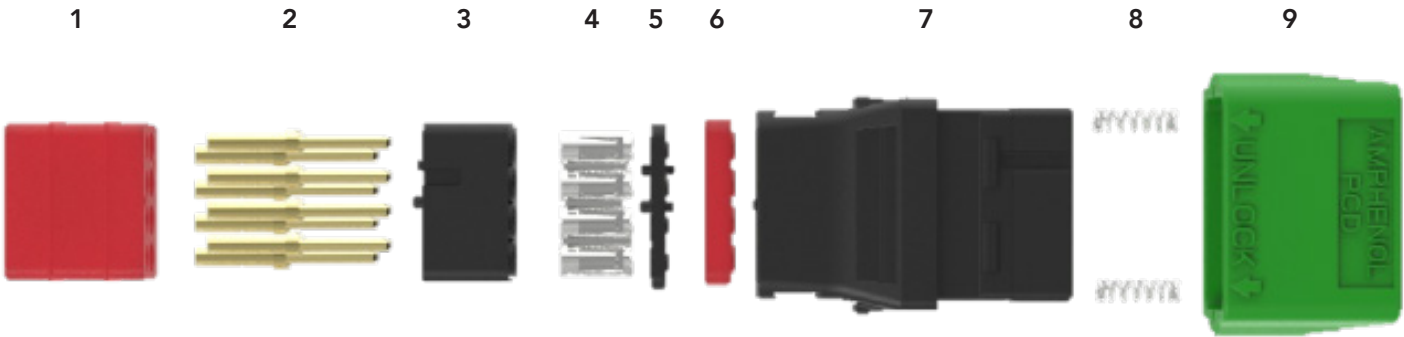
2: With straight pcb contacts

3: With R/A pcb contacts

Example Configurations

- SQR620150: 6 pos., 20 awg., Plug, A Key Pins Sockets
- SQR620100: 6 pos., 20 awg., Plug, A Key Pins

Construction & Materials



Items 3, 5, and 7 ultrasonically welded, ensure no gaps or voids.

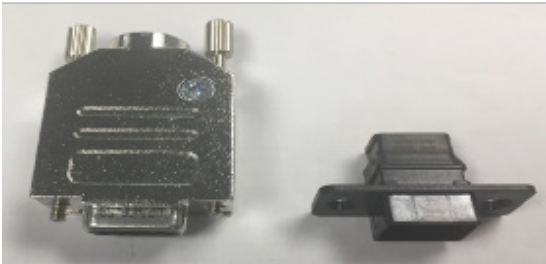
Items 1 and 6 are bonded with heat cured expoxy for long-lasting, peel-free operation.

Plug shown.

Item	Description
1	Wire Seal Grommet Silicone Rubber, Red, per A-A-59588
2	M39029 style Pins or Sockets
3	Clip Housing, Polyetheramid, ULTEM
4	Retainer Clip, Stainless Steel 301
5	Plated Plug Housing, Polyetheramid, ULTEM
6	Face Seal, Silicone Rubber, Red, per A-A-59588
7	Housing, Polyetheramid, ULTEM
8	Stainless Steel springs
9	Coupling Nut, PA66 Nylon

Saves Weight & Space

Solaris mated pair does not weigh as much as the lightest DSUB backshell and weighs a fraction of the M24308/8-11F.

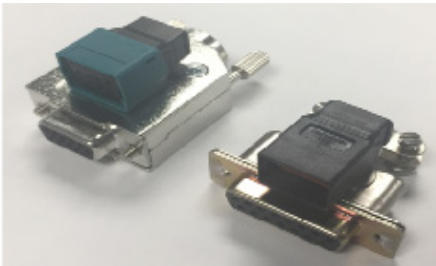


M24308/2-11F W/ Backshell 40.1 g SQR822500 3.5 g



M24308/8-11F 6.0g
w/ Backshell 15.4g

SOLARIS fits inside the space needed for a standard DSUB with strain relief or backshell.



AMPHENOL PCD PRODUCTS



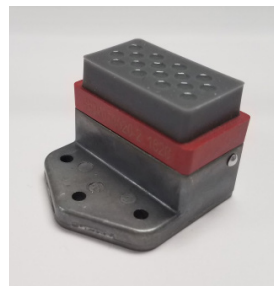
BACKSHELLS



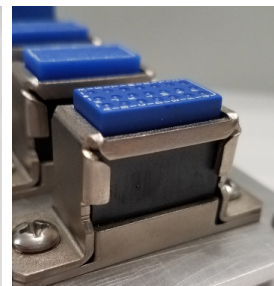
CABLE SOLUTIONS



CIRCULAR



GROUND BLOCKS



JUNCTION MODULES



LUMINUS



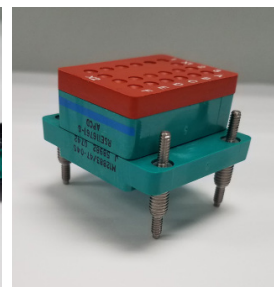
MILITARY AUDIO/POWER



PEGASUS SERIES



RECTANGULAR



RELAY SOCKETS



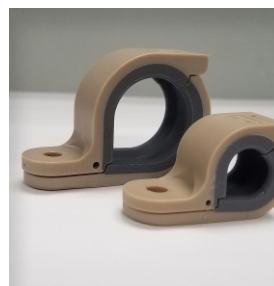
RUGGED SOLUTIONS



SIM



SOLARIS



SYSTEM ATTACHMENTS

Amphenol Pcd

www.amphenolpcd.com