

TRI-POWER WITH RADSOK® TECHNOLOGY

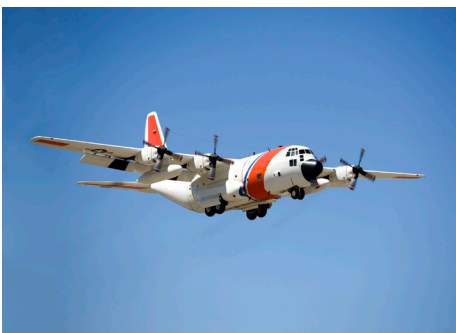
PDS-211-4



Amphenol has combined the reliability of D38999 connectors with the high-current RADSOK® contact design.

The Amphenol Power Connectors incorporate the proven design of the MIL-DTL-38999 Series III Tri-Start connectors with the evolving technology of the High Power RADSOK® contacts. This newly designed product is the future of power connectors enabling customers to choose contacts ranging from 70 to 120 amps (240 to 620 amps per connector) allowing more power in a smaller connector. Using standard shell sizes for 38999 connectors will allow the Power Connectors to mate to existing mounting holes without changing the customer's original design. In addition, Amphenol offers oversized 38999-style shells which are able to provide more power and amperage, while maintaining the proven, trusted MIL-DTL-38999 style design.

Tri-Power will also be available in our alternate to cadmium plating, Durmalon, which is a Nickel-PTFE. Black Zinc Nickel is also available. Both are RoHS and proven to meet coupling torque, shell-to-shell conductivity, and durability tests required by the MIL-DTL-38999 salt spray requirements.



BUILD A PART NUMBER:

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size	Insert Arrangement	Contact Type	Alternate Positions
MP	00	RF	21	AH	P	B

1. Connector Type	
MP	Tri-Power

2. Shell Style	
00	Wall Mount Receptacle
06	Plug
07	Jam Nut Receptacle

3. Service Class	
RS	Nickel plated, corrosion resistant steel, firewall capability, 500 hour salt spray, 200°C, EMI shielding -65dB @ 10GHz specification min.
RF	Electroless nickel plated aluminum, optimum EMI shielding effectiveness - 65dB @ 10GHz specification min., 48 hour salt spray
RW	Corrosion resistant olive drab cadmium plated aluminum, 500 hour extended salt spray, EMI -50dB @ 10GHz specification min.
DT	Durmalon: Gray non-reflective finish, RoHS [®] compliant cad & Hexavalent Chromium free. 500 hours extended salt spray, EMI -50db @ 10 GHz specification min.
DZ	Black Zinc-Nickel alternative to cadmium. Corrosion resistant, 500 hour salt spray, conductive, EMI shielding -50db @ 10 GHz specification min

4. Shell Size	
21	MIL Shell Size G
23*	MIL Shell Size H
25	MIL Shell Size J
25L	-
33	-

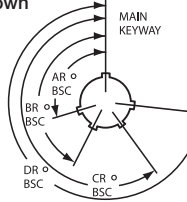
5. Insert Arrangement	
<i>See drawings to the right</i>	

6. Contact Type	
P	Pin Contacts
S	Socket Contacts

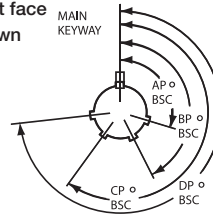
* For Special termination methods such as threaded or solder cup, contact factory

7. Alternate Positions						
Shell Size	Key & keyway arrangement identification letter	AR° or AP° or BSC	BR° or BP° or BSC	CR° or CP° or BSC	DR° or DP° or BSC	
21, 23 and 25	N	80	142	196	293	
	A	135	170	200	310	
	B	49	169	200	244	
	C	66	140	200	257	
	D	62	145	180	280	
33* and 37*	E	79	153	197	272	
	N*	80	142	188	293	
	A	135	170	188	310	
	B	49	169	188	244	
	C	66	140	188	257	
	D	62	145	188	280	
	E	79	153	188	272	

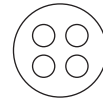
RECEPTACLE front face shown



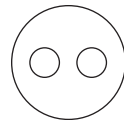
PLUG front face shown



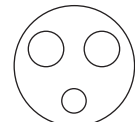
A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Inserts are not rotated in conjunction with the master key/keyway.



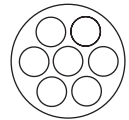
21-AH
(4) Size 8 Contacts



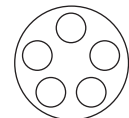
25-AH
(2) Size 4 (1) Size 8



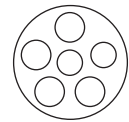
25-L
(2) Size 4 (1) Size 8



25-7
(7) Size 8 Contacts



33-5
(5) Size 4



33-6
(2) Size 8 (4) Size 4

* Consult Amphenol for availability

RADSOK® TECHNOLOGY ADVANTAGES

HIGH RELIABILITY

Unique RADSOK® design and construction technology create an electrical contact interface that exceeds typical interconnect requirements. Applications in aerospace, medical, industrial, automotive, mining, offshore, and other harsh environments depend on high reliability of the Amphenol RADSOK® technology.

LOW CONTACT ENGAGEMENT/SEPARATION FORCES

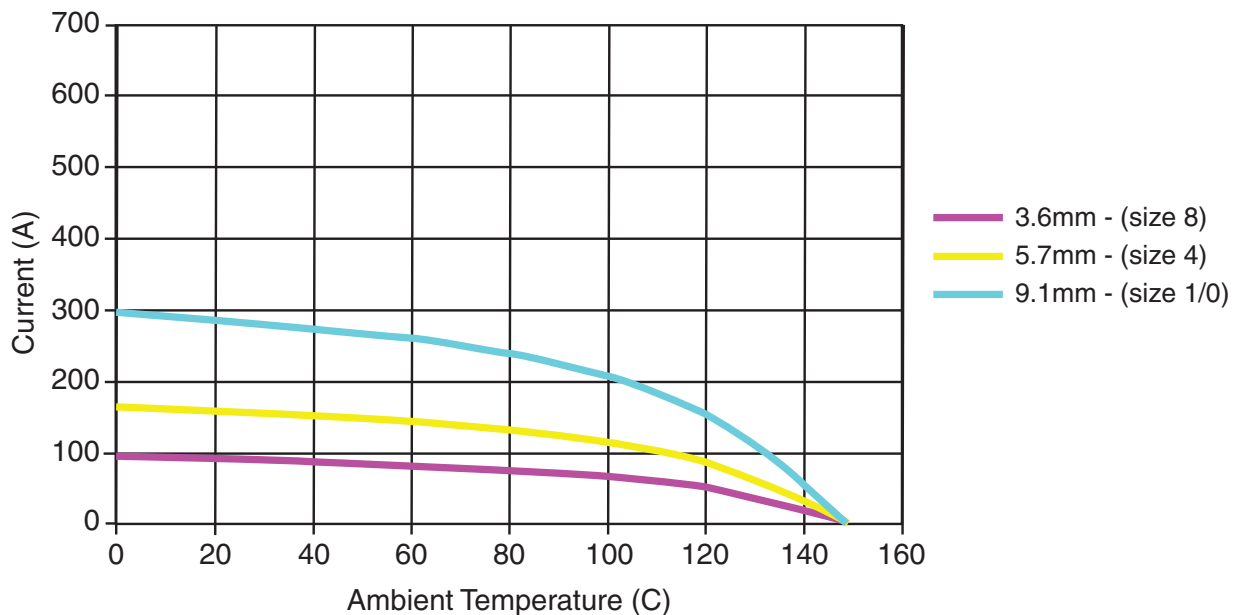
The hyperbolic lamella socket contact construction distributes normal forces over a high percentage of the mating pin surface. This creates a smooth, even engagement effort. This force distribution also contributes to excellent performance in vibration applications with resistance to typical fretting corrosion.

LOW CONTACT RESISTANCE

The large interface area between the socket lamella and pin surface result in very low contact resistance, enabling the RADSOK® contacts' high current ratings compared to traditional power contact designs.

HIGH MATING CYCLE DURABILITY

RADSOK® contacts with typical silver plating finishes have demonstrated survival of 20,000 mating cycles. Specialized plating and contact lubricants can extend cycle life to 200,000 matings or higher. Even with continuous exposure to harsh environmental abuse (salt, sand, and high humidity), RADSOK® contacts have been tested to maintain low contact resistance beyond 10,000 mating cycles.



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