Amphenol
Aerospace

38999 TRI-POWER CONNECTORS

PDS-211-4



Amphenol has combined the reliability of D38999 connectors with the high-current RADSOK & Temper-Grip contact designs.

The Amphenol Tri-Power Connectors incorporate the proven design of the MIL-DTL-38999 Series III Tri-Start connectors with Amphenol RADSOK & Temper-Grip high current contacts. This newly designed product is the future of power connectors enabling customers to choose contacts ranging from 70 to 250 amps (240 to 1000 amps per connector) allowing more current carrying capability than comparably sized Mil-DTL-5015 & MIL-DTL-22992 Connectors.







Matt Simonds • Office: +1 (607) 563-5218 • Email: msimonds@amphenol-aao.com
amphenol-aerospace.com • amphenolmao.com

BUILD A PART NUMBER:

1.	2.	3.	4.	5.	6.	7.	8.
Connector Type	Shell Style	Service Class	Shell Size	Insert Arrangement	Contact Type	Alternate Positions	Temper-Grip
MP	00	RF	21	AH	P	B	B65

1. Connector Type*

MP	Tri-Power with RADSOK up to 175°C
TV	Tri-Power with Temper-Grip up to 200°C

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
25	MIL Shell Size J
25L	-See Drawing
33	-See Drawing
37	-See Drawing*

* *DZ* Not available in size 37

5. Insert Arrangement

See drawings to the right

6. Contact Type

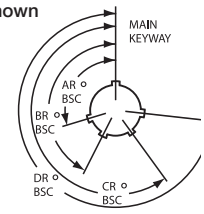
P	Pin Contacts
S	Socket Contacts

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

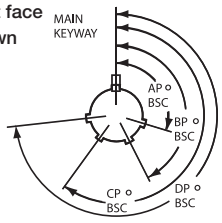
7. Alternate Positions

Shell Size	Key & keyway arrangement identification letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
21, 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
	E	79	153	197	272
25L, 33 and 37	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.

8. Contact Type

For TV (Tri-Power with Temper-Grip), add B65 to end of part number for socket connectors only.

•MP Series contains silver plated contacts, TV series are gold plated



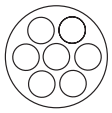
21-AH
(4) Size 8 Contacts



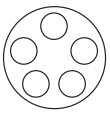
25-AH
(2) Size 4 Contacts



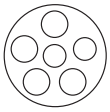
25L-3
(2) Size 4 (1) Size 8



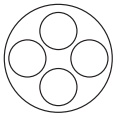
25L-7
(7) Size 8 Contacts



33-5
(5) Size 4



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

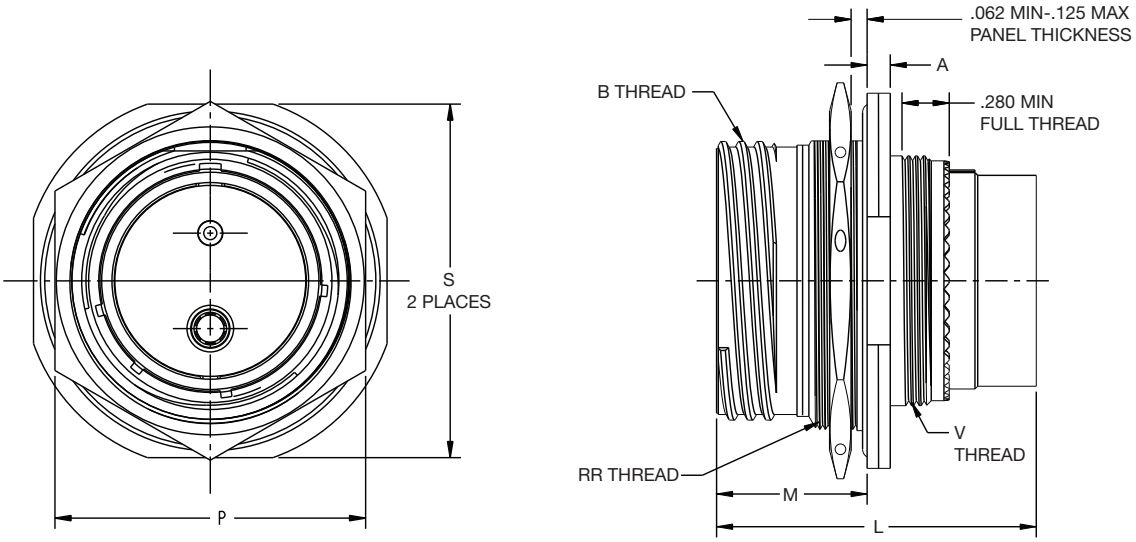


37-5
(4) Size 0

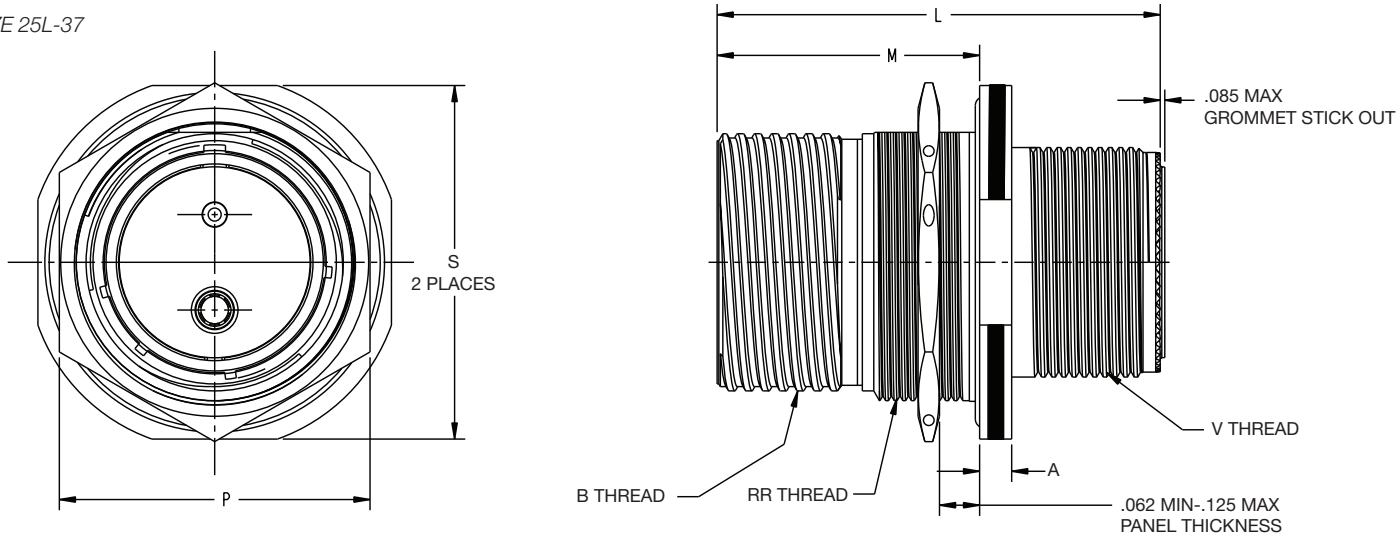
Matt Simonds • Office: +1 (607) 563-5218 • Email: msimonds@amphenol-aao.com
amphenol-aerospace.com • amphenolmao.com

MP07/TV07

SIZE 21-25



SIZE 25L-37

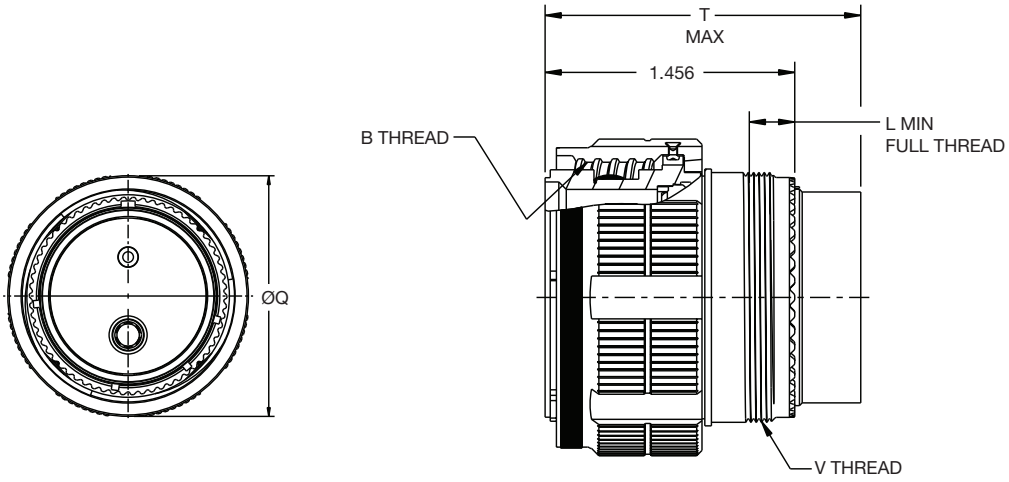


MP07/TV07									
Coded Number	Shell Size	A +.010 -.005	B Thread Class 2A	M ±.005	P Hex +.017 -.016	RR Thread	S +.011 -.010	V Thread	L Max
MP/TV07RF-21-( )( )	21	.135	1.3750-0.1P-0.3L-TS	.878	1.688	M38XI-6G0.100R	1.938	M31XI-6g0.100R	1.888
MP/TV07RF-25-( )( )	25	.135	1.6250-0.1P-0.3L-TS	.878	2.000	M44XI-6G0.100R	2.188	M37XI-6g0.100R	1.888
MP/TV07RF-25L-( )( )	25L	.188	1.6250.0.1P-0.3L-TS	1.536	2.000	M44x1-6G0.100R	2.188	M37x1-6g0.100R	2.600
MP/TV07RF-33-( )( )	33	.188	1.8750-0.1P-0.3L-TS	1.536	2.250	M50XI-6G0.188R	2.469	M45XI-.5-6g0.188R	2.600
MP/TV07RF-37-( )( )	37	.188	2.1250-0.1P-0.3L-TS	1.536	2.625	M60XI-6G0.188R	2.828	M50XI-.5-6g0.188R	2.600

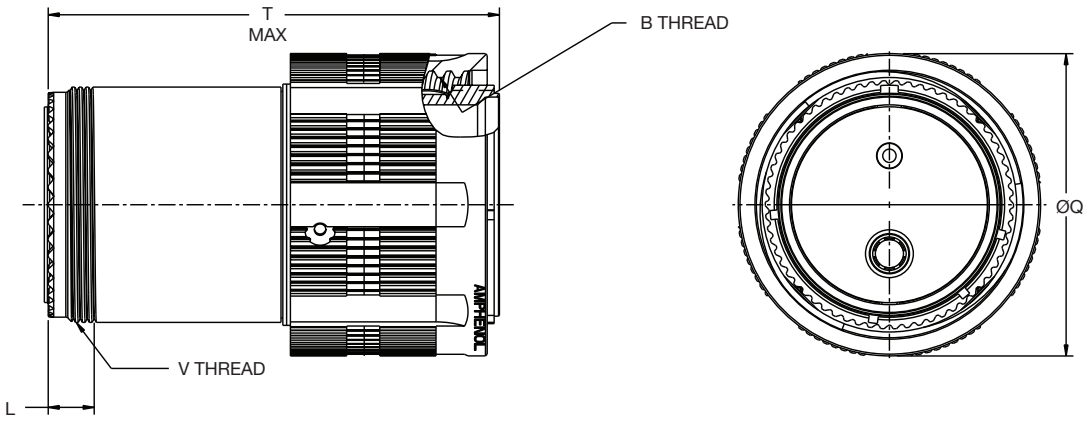
Matt Simonds • Office: +1 (607) 563-5218 • Email: msimonds@amphenol-aao.com
amphenol-aerospace.com • amphenolmao.com

MP06/TV06

SIZE 21-25



SIZE 25L-37

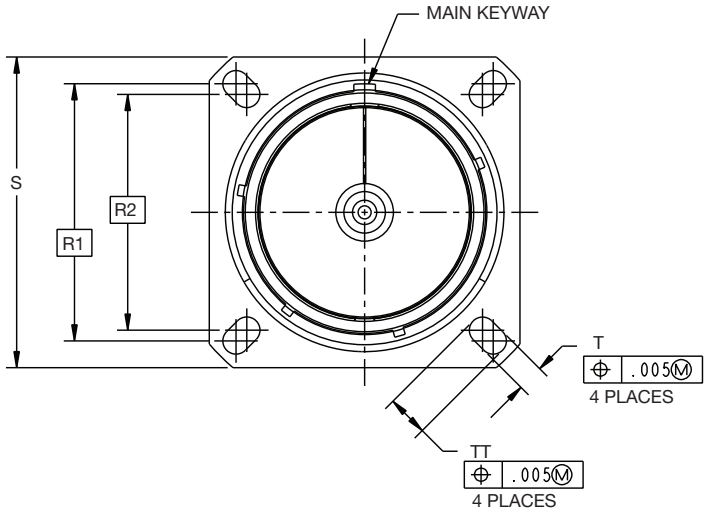


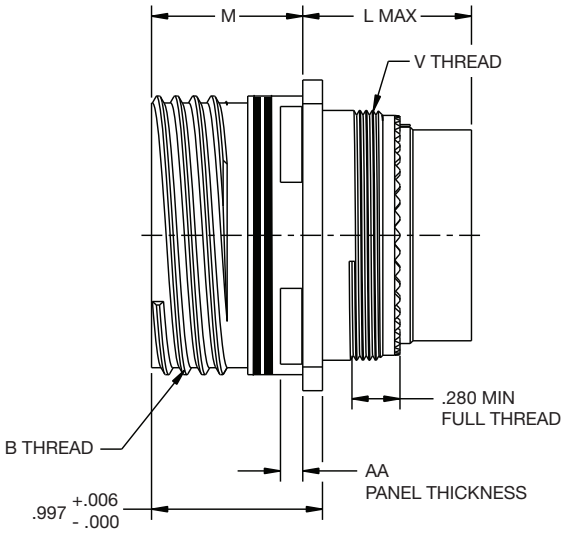
MP06/TV06						
TV06 Part Number	Shell Size	B Thread Class 2A	Ø Q Max	V Thread 9	L Min Full Threaded	T Max
MP/TV06RW-21-( )	21	1.3750-.1P-0.3LTS	1.625	M31X 1-6g0.100R	.280	1.888
MP/TV06RW-25-( )	25	1.500-0.1P-0.3LTS	1.750	M31X 1-6g0.100R	.280	1.888
MP/TV06RW-25L-( )	25L	1.6250-0.1P-0.3LTS	1.875	M37X 1-6g0.100R	.280	2.579
MP/TV06RW-33-( )	33	1.8750-0.1P-0.3LTS	2.203	M45X 1-5-6g0.188R	.594	2.579
MP/TV06RW-37-( )	37	2.1250-0.1P-0.3LTS	2.391	M50X 1-5-6g0.188R	.594	2.579

Matt Simonds • Office: +1 (607) 563-5218 • Email: msimonds@amphenol-aao.com
amphenol-aerospace.com • amphenolmao.com

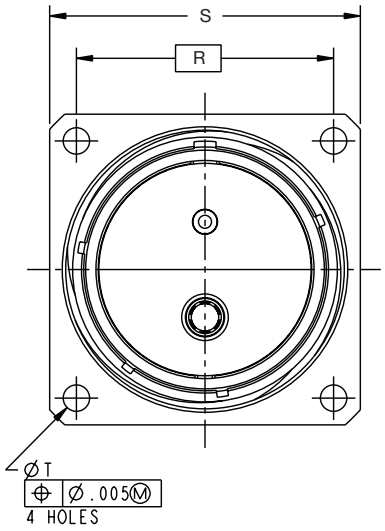
MP00/TV00

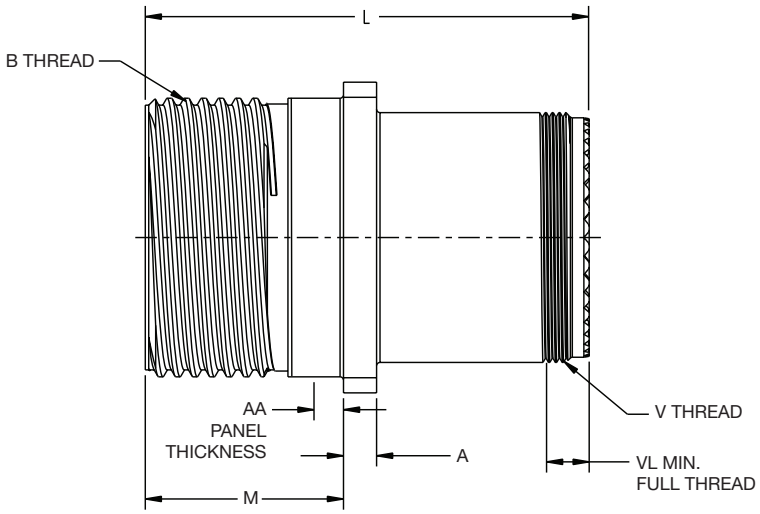
SIZE 21-25





SIZE 25L-37



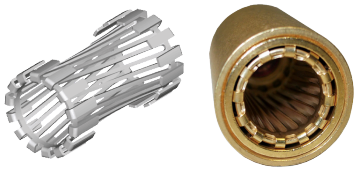


MP00/TV00													
TV06 Part Number	Shell Size	B Thread Class 2A	L Max	M± .005	R	R1	R2	S +.011 -.010	Ø T +.008 -.005	TT +.008 -.006	V Thread	AA Panel Thickness	L Min Full Threaded
MP/TV00RW-21-( )	21	1.3750-0.1P-0.3L-TS	1.900	.882	N/A	1.250	1.156	1.562	N/A	.194	M31X1-6g0.100R	.062-.125	.280
MP/TV00RW-25-( )	25	1.6250-0.1P-0.3L-TS	1.900	.882	N/A	1.500	1.375	1.812	N/A	.242	M37X1-6g0.100R	.062-.125	.280
MP/TV00RW-25L-( )	25L	1.6250-0.1P-0.3L-TS	2.600	1.489	1.500	N/A	N/A	1.812	.154	N/A	M37X1-6g0.100R	.062-.125	.280
MP/TV00RW-33-( )	33	1.8750-0.1P-0.3L-TS	2.600	1.716	1.750	N/A	N/A	2.312	.209	N/A	M45X1-5-6g0.188R	.062-.125	.594
MP/TV00RW-37-( )	37	2.1250-0.1P-0.3L-TS	2.600	1.957	1.922	N/A	N/A	2.484	.209	N/A	M50X1-5-6g0.188R	.062-.125	.594

Matt Simonds • Office: +1 (607) 563-5218 • Email: msimonds@amphenol-aao.com
amphenol-aerospace.com • amphenolmao.com

RADSOK® & TEMPER-GRIP TECHNOLOGY ADVANTAGES

Socket Contact Options



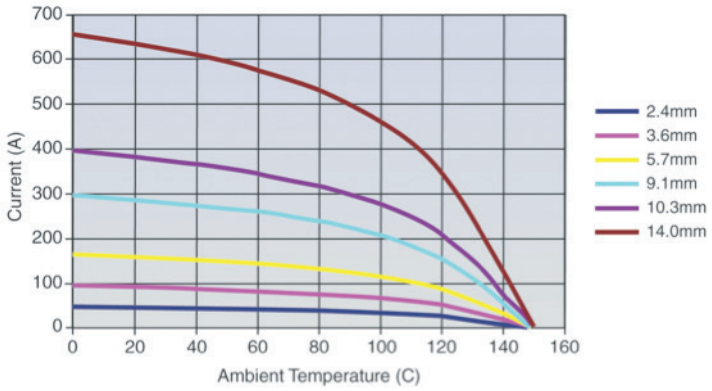
RADSOK

LOW CONTACT ENGAGEMENT/SEPARATION FORCES

The hyperbolic lamella socket contact construction distributes normal forces over a high percentage of 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 results in very low contact resistance, enabling the RADSOK® contacts' high current rating 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. 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.

Standard Contacts	
Size	Amps
8	46
4	80
0	150

RADSOK Contacts		
Size	Amps	Cartridgesize
8	70	3.6 MM
4	120	5.7MM
0	250	9.1MM

Temper-grip



HIGH TEMPERATURE CAPABILITY

For use in high temperature (200 C+) applications, the Temper-grip socket has been tested to maintain current capability in high temperature situations where standard mil-spec socket contacts can begin to relax.

"NAPKIN-RING" TECHNOLOGY

Proven design utilizing a stainless steel napkin ring to prevent the beryllium copper tines from "relaxing" at higher temperatures and maintaining a greater area of true contact in all situations to decrease resistance.

Standard Contacts	
Size	Amps
8	46
4	80
0	150

Temper-GRIP Contacts	
Size	Amps
8	65
4	110
0	220

Notice: Specifications are subject to change without notice. Contact your nearest Amphenol Corporation Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements or suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all connectors.

AMPHENOL is a registered trademark of Amphenol Corporation. ©2019 Amphenol Corporation REV: 2/3/2019

Matt Simonds • Office: +1 (607) 563-5218 • Email: msimonds@amphenol-aao.com

amphenol-aerospace.com • amphenolmao.com