

High Voltage 38999 (HV38999) is an expansion of MIL-DTL-38999 type connectors developed to provide solutions for next generation power requirements.

Future power distribution architecture is moving toward higher voltages beyond the capabilities of standard connectors. Through insert optimizations these specialty D38999s can safely carry high voltages and large currents while remaining partial discharge free to extend connector life.

FEATURES & BENEFITS:

- Designed to meet MIL-DTL-38999 mechanical and environmental performance
- Available safety interlock circuitry utilizes last mate, first break sequence
- All MIL-DTL-38999 shell configurations/finishes available including our Dualok high vibration plug
- Utilizes existing AS39029 type silver plated power contacts including the higher current Temper Grip socket and busbar/threaded termination styles.
- Accommodates standard MIL-DTL-38999 accessories

Test Voltages (Pre-Production Arrangement 13-54)*				
ALTITUDE	DWV Test Voltages A/C (RMS)		PDIV Test Voltages A/C (RMS)	PDIV Test Voltage D/C
	Unmated	Mated		
SEA LEVEL	2600V	4500V	1550V	2000V
20,000 FT	N/A	3850V	1250V	1700V
30,000 FT		3700V	1100V	1400V
50,000 FT		3000V	850V	1150V

*13-54 arrangement excepted to be lowest rated arrangement. Electrical data for other arrangements available soon

**Note that the establishment of electrical safety factors is left entirely up to the system designer as they are in the best position to know what peak voltage, switching surges, transients, etc. can be expected in a particular system

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size - Insert Arrangement	Crimp Termination	Alternate Positions	Modifications
HV	97	DZ	25-56	GH		(RDG)
HV	06	RF	13-54	P	A	

1. Connector Type

HV	High Voltage 38999
HVC	High Voltage Composite 38999***

4. Shell Size - Insert Arrangement**

Shell Size & Insert Arrangements on page 7

5. Crimp Termination

Add "G" before contact type designation for gold plated contacts

P	Pin Contacts
S	Socket Contacts
A	Pin, Less Contacts
B	Socket, Less Contacts
H	High Performance Temper Grip Socket
R	RADSOK Socket

2. Shell Style**

00	Wall Mount Receptacle
01	Inline Receptacle
02	Box Mount Receptacle
06	Straight Plug
56	DUALOK Plug
96	Plug with Integral Backshell
07	Jam Nut Receptacle
97	Reduced Flange Jam Nut Receptacle

6. Alternate Positions

	Blank for normal rotation
A	A rotation
B	B rotation
C	C rotation
D	D rotation
E	E rotation

7. Modifications**

P3D = 3D Printed, recommended for fit checks and benchtop testing

(3D1)	P3D Metal Clip Insert, Standard Shell
(TPS)	Touch Proof Tips (Pin contacts only)
(RDG)	Reduced Grommet*

3. 175°C Service Class

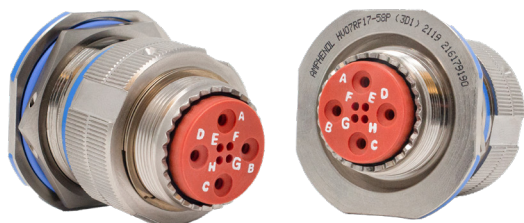
RW	Olive Drab Cadmium Plated Aluminum (500 Hour Salt Spray) or Composite (2000 Hour Salt Spray)	
DT	Durmalon Plated Aluminum (500 Hour Salt Spray)	
DZ	Black Zinc-Nickel Plated Aluminum (500 Hour Salt Spray)	
RF	Electroless Nickel Plated Aluminum (48 Hour Salt Spray) or Composite (2000 Hour Salt Spray)	
RK	Passivated Stainless Steel, Firewall (500 Hour Salt Spray) ****	
RKN	Passivated Stainless Steel, Non-Firewall (500 Hour Salt Spray)	
RL	Nickel Plated, Passivated Stainless Steel, Non-Firewall (500 Hour Salt Spray)	
RS	Nickel Plated, Passivated Stainless Steel, Firewall (500 Hour Salt Spray) ****	
DS	AP-93 Tri-Nickel Alloy Plated Aluminum (1000 Hour Salt Spray)	

*Provides compatibility for size 0 contacts with 2awg, size 4 contacts with 6awg, and size 8 contacts with 10awg. Crimp well reducer bushings are included.

**Contact factory for additional configurations/customization

***Available for insert arrangements 13-54, 15-54, 15-58 and 17-58

**** Contact factory for firewall performance



HV38999 HOW TO ORDER- ALTERNATE RECEPTACLE TERMINATION



1.	2.	3.	4.	5.	6.	7.	8.
Connector Type	Shell Style	Service Class	Shell Size - Insert Arrangement	Contact Style	Contact Type	Alternate Positions	Modifications
HV	02	RF	25-56	F	P	A	(MTT)
HV	27	RW	37-57	B	R		

1. Connector Type	
HV	High Voltage 38999

4. Shell Size - Insert Arrangement**	
Shell Size & Insert Arrangements on page 7	

5. Contact Style**	
F	Female Thread Termination
M	Male Thread Termination
B	Busbar

8. Modifications**	
P3D = 3D Printed, recommended for fit checks and benchtop testing	
(3D1)	P3D Metal Clip Insert, Standard Shell
(TPS)	Touch Proof Tips (Pin contacts only)
(MTT)	Termination With Metric Threading

2. Shell Style**	
02	Box Mount Receptacle
27	Jam Nut Box Mount
97	Reduced Flange Jam Nut Receptacle

6. Contact Type	
Add "G" before contact type designation for gold plated contacts	
P	Pin Contacts
S	Socket Contacts
H	High Performance Temper Grip Socket
R	RADSOK Socket

7. Alternate Positions	
	Blank for normal rotation
A	A rotation
B	B rotation
C	C rotation
D	D rotation
E	E rotation

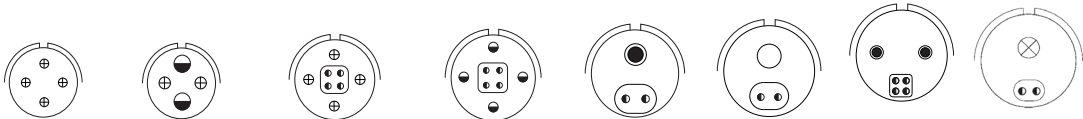
3. 175°C Service Class		
RW	Olive Drab Cadmium Plated Aluminum (500 Hour Salt Spray)	
DT	Durmalon Plated Aluminum (500 Hour Salt Spray)	
DZ	Black Zinc-Nickel Plated Aluminum (500 Hour Salt Spray)	
RF	Electroless Nickel Plated Aluminum (48 Hour Salt Spray)	
RK	Passivated Stainless Steel, Firewall (500 Hour Salt Spray) ***	
RKN	Passivated Stainless Steel, Non-Firewall (500 Hour Salt Spray)	
RL	Nickel Plated, Passivated Stainless Steel, Non-Firewall (500 Hour Salt Spray)	
RS	Nickel Plated, Passivated Stainless Steel, Firewall (500 Hour Salt Spray)***	
DS	AP-93 Tri-Nickel Alloy Plated Aluminum (1000 Hour Salt Spray)	

**Contact factory for additional configurations/customization
***Contact factory for firewall performance

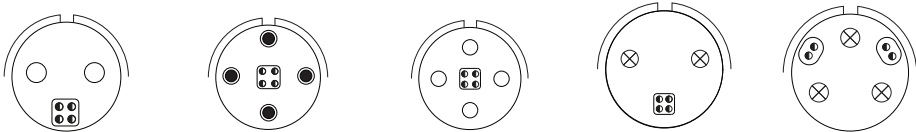
Termination Thread Size*		
Contact Size	Imperial	Metric
8	4-40 UNC	M3 x 0.5
4	8-32 UNC	M4 x 0.7
1/0	10-32 UNF	M5 x 0.8

*Default thread type is imperial. Use (MTT) mod code for metric





Shell Size & Insert Arrg.:	13-54		15-54		15-58		17-58		17-59		19-59		21-56		23-59	
Number of Contacts	4	0	2	2	4	4	4	4	1	2	1	2	2	4	1	2
Contact Size	16	22D	16	12	16	22D	12	22D	8	22D	4	22D	8	22D	0	22D



Shell Size & Insert Arrg.:	25-56		25-58		33-58		37-56		37-57	
Number of Contacts	2	4	4	4	4	4	2	4	3	4
Contact Size	4	22D	8	22D	4	22D	0	22D	0	22D

**Some insert arrangements may have extended initial lead time depending on tool status.
 Please consult factory for more information.



CONTACT LEGEND

0

4

8

12

16

22D

