



38999 High Power (up to 850 A)

Designed to meet the harshest military requirements where high power and shielding are needed.

3 aluminum shell sizes available ✓

Size 19 (450 A max); size 23 (650 A max); size 25 (850 A max) - at 40°C

Finishes: cadmium or zinc nickel

Threaded coupling

Superior contact technology equipped with a silver plated braid ✓

No micro disconnect under vibration

High contact endurance

Low contact resistance

Modular design for easy installation ✓

Removable backshell: straight, right angle or threaded contact

Backshell termination: shrink boot

Possible to crimp various cables (Ø from 50 to 185mm)

Safety ✓

Pin contact is equipped with a plastic cap to prevent electrical shock

Recessed engagement point to prevent electric arc during mating/unmating



38999 Series III High Power Contacts



Description

- Threaded coupling connector with single power contact.
- Aluminum shell.
- 3 shell sizes available:
 - size 19: Up to 450 A at 40°C
 - size 23: Up to 650 A at 40°C
 - size 25: Up to 850 A at 40°C
- Silver plated contact.
- Pin contact is equipped with a plastic cap to prevent electrical shock.
- Modular design:
 - . Removable backshell: straight, right angle or threaded contact.
 - . Backshell termination: shrink boot.

Technical features

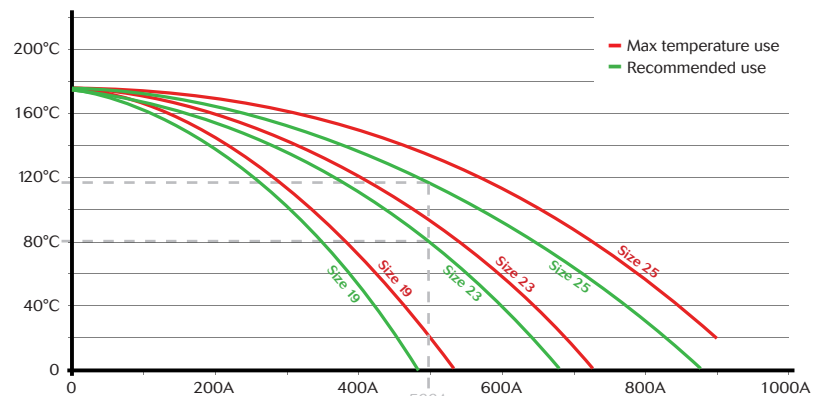
Mechanical

- **Shell:** Aluminum alloy
- **Shell plating:**
Black zinc nickel (Z)
Cadmium olive drab (W)
- **Insulator:** Thermoplastic
- **Grommet and interfacial seal:**
Silicone elastomer
- **Contact body:** Copper alloy
- **Endurance:**
500 mating/unmating operations
- **Vibration:**
According Def Stan 00-35
4.2 g rms vert - 6h/3 axes

Electrical

- **Test voltage**
> 1500 V
- **Shell to shell continuity** (no backshell)
< 2.5 mΩ
- **EMI**
85 dB @ 1GHz (F)

• Connector rating



Example for 500A:
 Shell size 25 with contact diameter 20: max temperature 135°C; recommended 120°C
 Shell size 23 with contact diameter 18: max temperature 90°C; recommended 80°C
 Shell size 19 with contact diameter 14: not recommended
 Wire must be compatible with current and temperature used for the connector.

Climatics

- **Temperature range:**
-65°C + 175°C
- **Sealing:**
IP67 on mated connector (1 meter/30 min)
- **Salt spray:**
500 hours

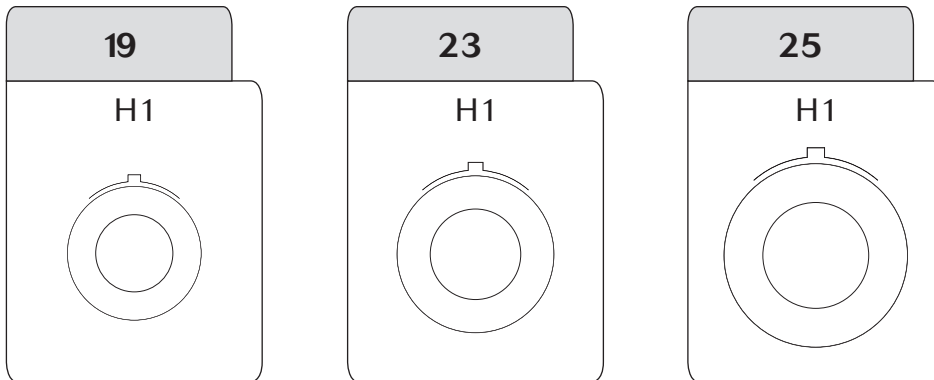
Resistance to fluids

- **According to MIL-DTL-38999 standard**
 - . Gasoline: JP5 (OTAN F44)
 - . Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)
 - . Synthetic hydraulic fluid: Skydrol 500 B4
- **LD4 (SAE AS 1241)**
 - . Mineral lubricating: MIL-L-7870A (OTAN 0142)
 - . Synthetic lubricating: MIL-L-23699 (OTAN 0156), MIL-L-7808
 - . Cleaning fluid: MIL-DTL-25769 diluted
 - . De-icing fluid: MIL-A-8243
 - . Extinguishing fluid: Chlorobrométhane
 - . Cooling fluid: Coolanol

38999 Series III High Power Contacts

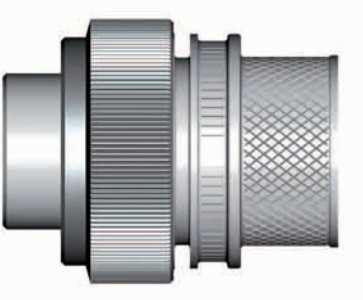

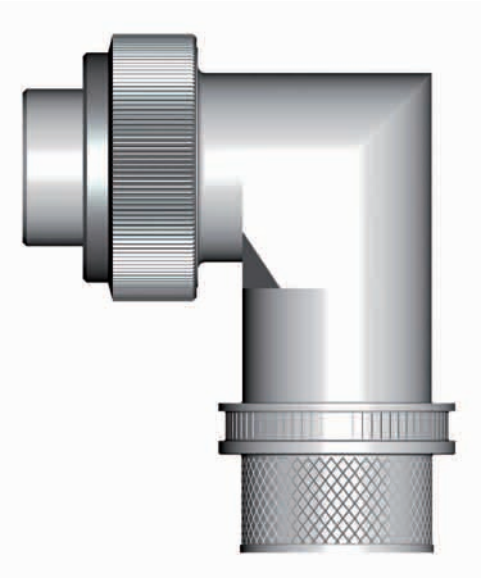
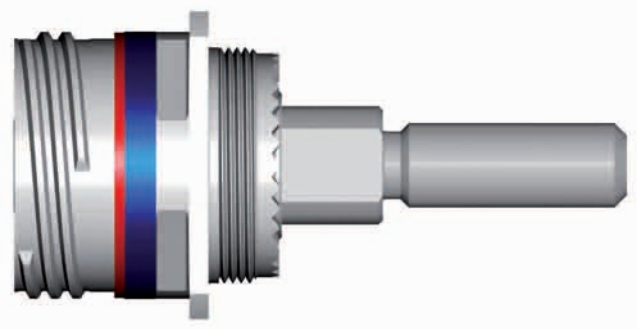


Contact layouts



Other size: Please consult us.

Backshell type

Description	
 <p>D1: Straight backshell shrink boot & EMI (crimp version)</p>	 <p>G0: Backshell low profile (threaded termination)</p>
 <p>R1: Right angle backshell shrink boot & EMI (crimp version)</p>	
 <p>W0: Without backshell (threaded termination)</p>	

38999 Series III

High Power Contacts



Ordering information

Basic Series	8D	0	25	W	H1	P	N	R1	A
Style:									
0: Square flange receptacle									
5: Plug (available with backshell D1, R1, G0 & W0 Types)									
7: Jam nut receptacle									
Shell size:									
19, 23, 25									
Plating:									
Z: Zinc Nickel									
W: Olive green cadmium									
H1: Single power									
Contact style:									
P: Pin contact									
S: Socket contact									
Orientation:									
N, A, B, C, D, E									
Backshell type:									
D1: Straight backshell shrink boot & EMI (crimp version)									
R1: Right angle backshell shrink boot & EMI (crimp version)									
G0: Backshell low profile (threaded termination)									
W0: Without backshell (threaded termination)									

Specification for backshells D1 & R1 Types (crimp version):

Specification	Shell size	Admissible cable (mm)		Barrel diameter (mm ± 0.05)
		Outer Ø max	Nominal core Ø	
A	19	17	10.15	10.8
B	19	17	11.1	11.8
C	19	17	12	12.5
D	23	22	14.05	15
E	23	22	16.3	17
	25	26.5		
F	25	26.5	19	20.5

Specification for backshells G0 & W0 Types (only threaded termination):

Specification	Shell size	Thread
C	19, 23 & 25	M12

Note: Plug not available with backshell W0 Type. Other thread, please consult us.

Note: For other configuration, please consult us.

38999 Series III High Power Contacts



Dimensions

Plug & receptacles

8D0 Square flange receptacle

8D5 Plug

8D7 Jam nut receptacle

Shell size	A ^{±0.1}	B ^{±0.1}	C ^{±0.1}	D ^{±0.1}	E ^{±0.1}	F Max	ØG Max	H ^{±0.25}	ØJ ^{±0.25}
19	36.5	26.97	29.36	3.29	4.98	41	38.5	45.95	49.15
23	42.9	31.75	34.93	3.96	6.2	47	44.9	52.35	55.55
25	46	34.93	38.1			52	48	55.55	58.65

Backshell D1 type

With 8D0
(square flange receptacle)

With 8D5
(plug)

With 8D7
(jam nut receptacle)

Shell size	A Max	B Max	ØC ^{±0.1}	ØD ^{±0.1}	E ^{±0.1}	F ^{±0.2}	G ^{±0.2}	H Max	K Max	M ^{±0.25}	N Max	P Max
19	2.65	20.9	25.6	31.3	2.26	12	4	62.5	62	3.25	22.8	63
23		20.1	32.4	38.1	2.97							
25		20.1	35.6	41.3	2.97							

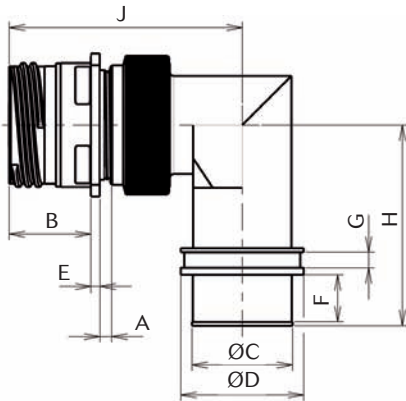
Note: All dimensions are in millimeters (mm)

38999 Series III High Power Contacts

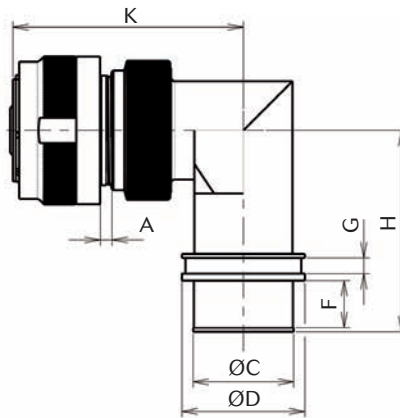


Backshell R1 type

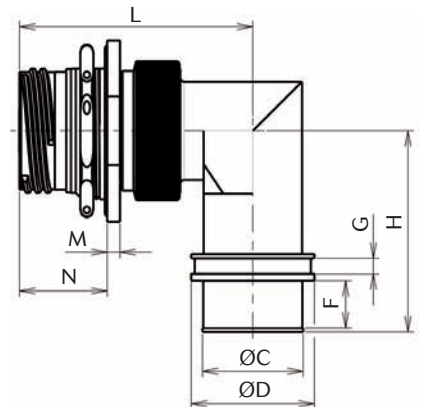
With 8D0
(square flange receptacle)



With 8D5
(plug)



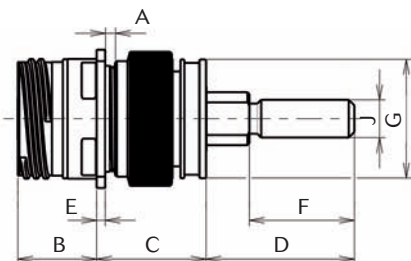
With 8D7
(jam nut receptacle)



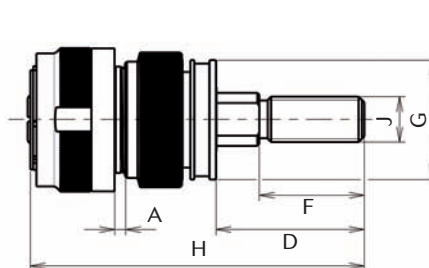
Shell size	A Max	B Max	ØC ^{±0.1}	ØD ^{±0.1}	E ^{±0.1}	F ^{±0.2}	G ^{±0.2}	H Max	J Max	K Max	L Max	M ^{±0.25}	N Max
19	2.85	20.9	25.6	31.3	2.26	12	4	51.1	59.3	58.7	59.6	3.25	22.8
23		20.1	32.4	38.1	2.97			54.4	62.7	62.1	63		
25		35.6	41.3	2.97	56.1			64.3	63.7	64.6			

Backshell G0 type

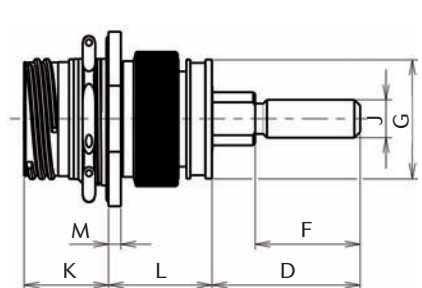
With 8D0
(square flange receptacle)



With 8D5
(plug)



With 8D7
(jam nut receptacle)



Shell size	A Max	B Max	C Max	D Max	E ^{±0.1}	F ^{±0.2}	ØG ^{±0.1}	H Max	J Max	K Max	L Max	M ^{±0.25}
19	2.65	20.9	29	39.4	2.26	25	31.3	88.1	M12 x 1.75	22.6	27.6	3.25
23		20.1	29.8		2.97		38.1				28.4	
25		41.3	2.97		41.3							

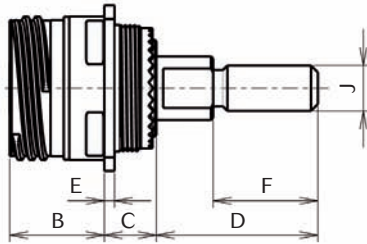
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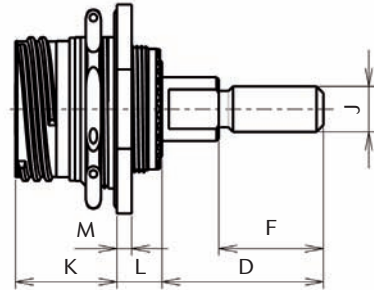


Backshell W0 type

With 8D0
(square flange receptacle)

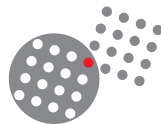


With 8D7
(jam nut receptacle)



Shell size	B Max	C Max	D Max	E ^{±0.1}	F ^{±0.2}	J Max	K Max	L Max	M ^{±0.25}
19	20.9	14	40	2.26	25	M12 x 1.75	22.6	12	3.25
23	20.1			2.97					
25									

Note: All dimensions are in millimeters (mm)



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