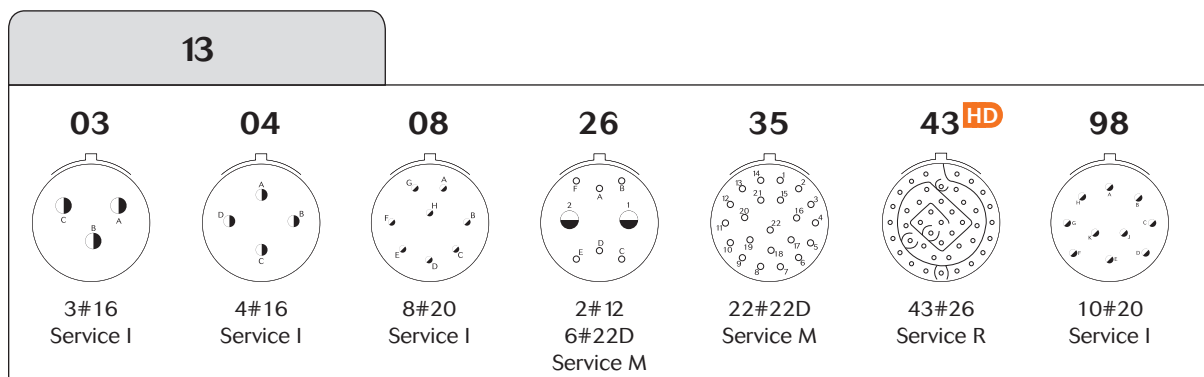
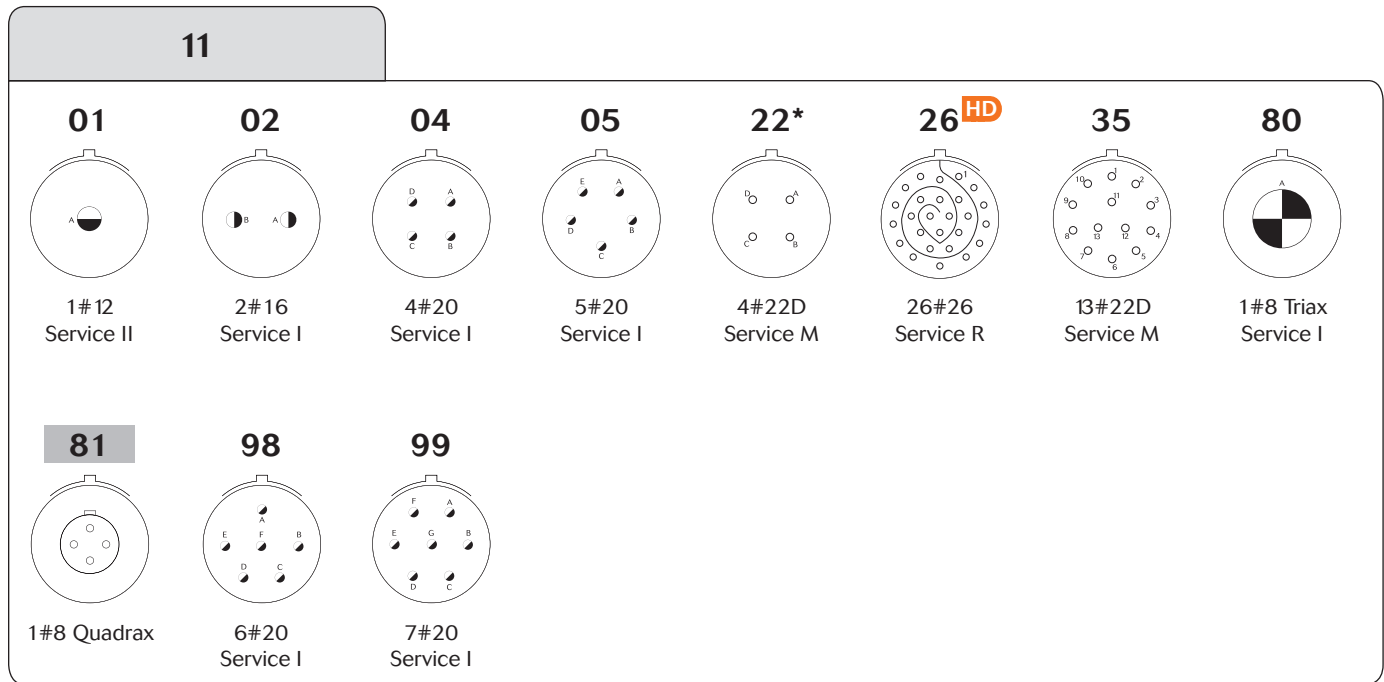
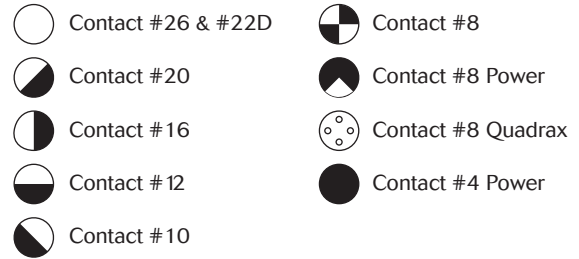
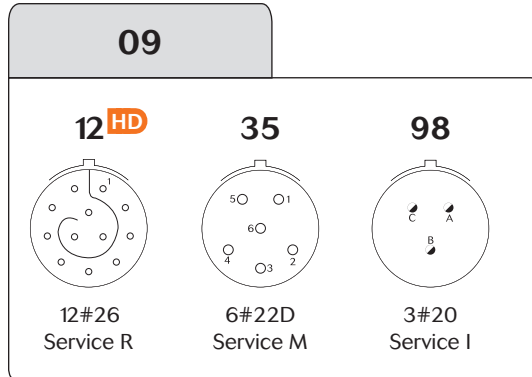


8LT Series

MIL-DTL-38999 Series I

Contact layouts

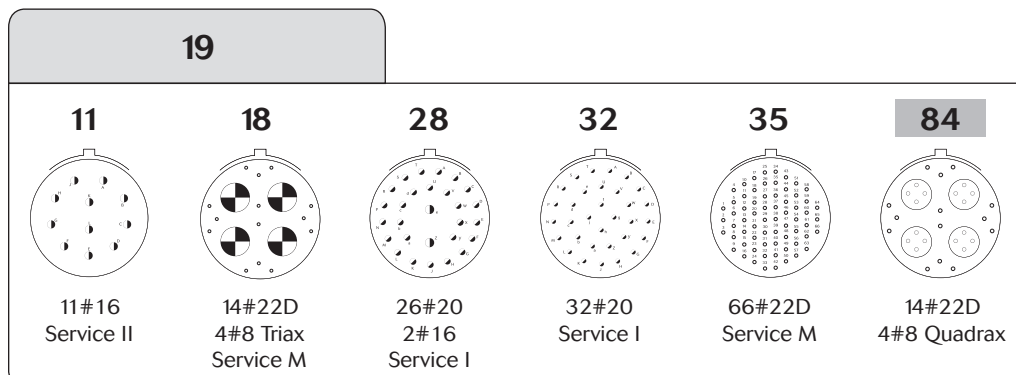
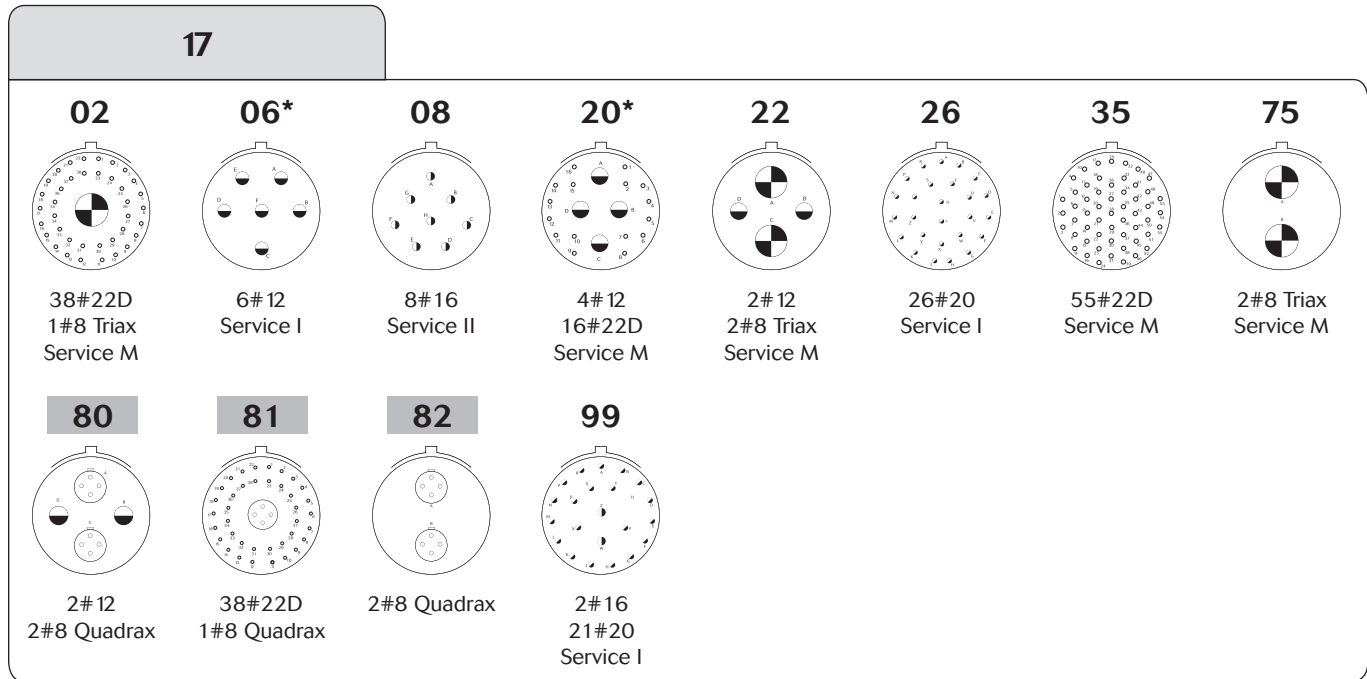
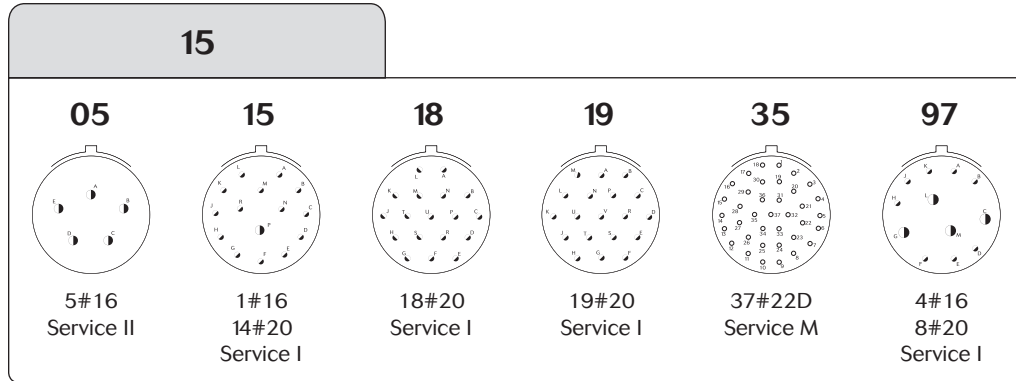


Ethernet Quadrax **HD** High Density layout * Available on specific request. Please consult us.

8LT Series

MIL-DTL-38999 Series I

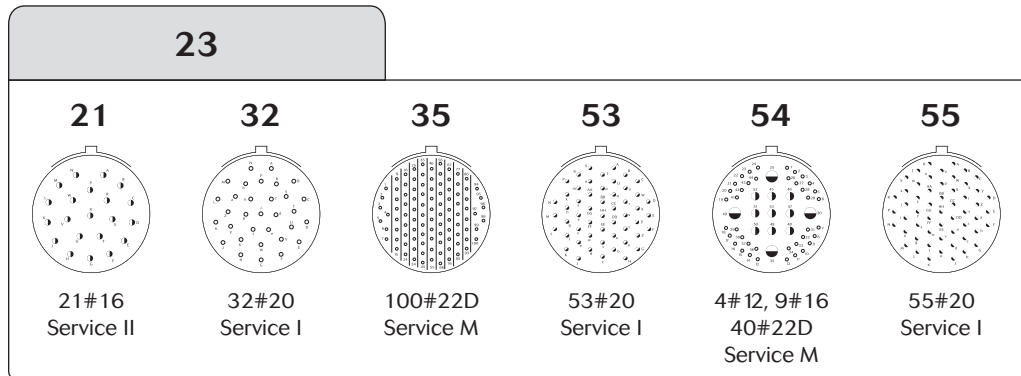
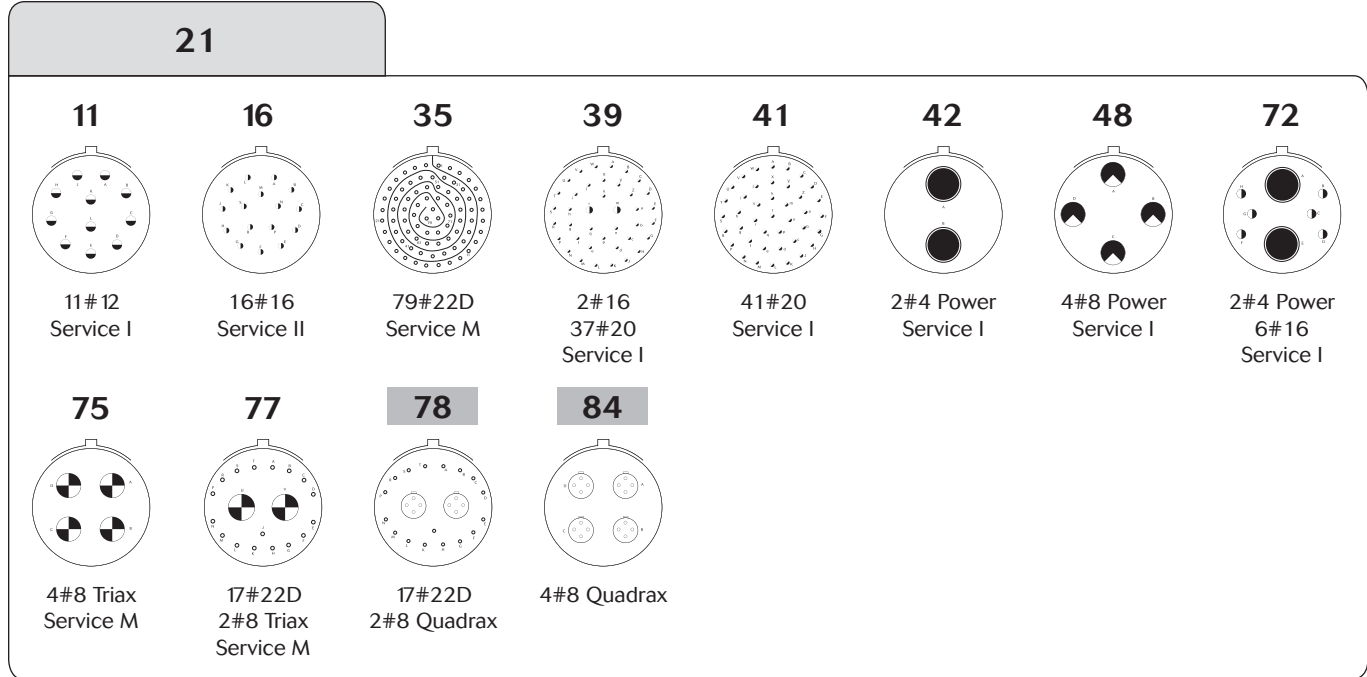
Contact layouts



8LT Series

MIL-DTL-38999 Series I

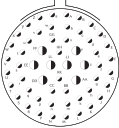
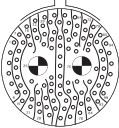
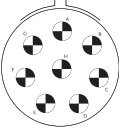
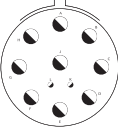
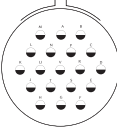


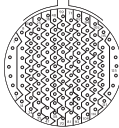
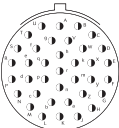
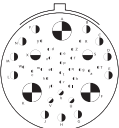
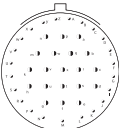
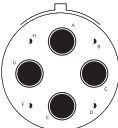

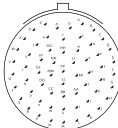
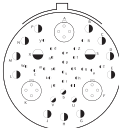
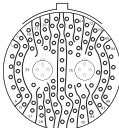

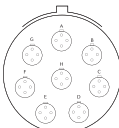

Contact layouts



8LT Series

MIL-DTL-38999 Series I

Contact layouts

25							
<p>04</p>  <p>8#16 48#20 Service I</p>	<p>07</p>  <p>2#8 Triax 97#22D Service M</p>	<p>08*</p>  <p>8#8 Triax Service M</p>	<p>11*</p>  <p>2#20 9#10 Service N</p>	<p>19</p>  <p>19#12 Service I</p>	<p>24</p>  <p>12#16 12#12 Service I</p>	<p>29</p>  <p>29#16 Service I</p>	<p>35</p>  <p>128#22D Service M</p>
<p>37</p>  <p>37#16 Service I</p>	<p>41</p>  <p>22#22D, 3#20 11#16, 2#12 3#8 Triax Service M</p>	<p>43</p>  <p>23#20 20#16 Service I</p>	<p>44</p>  <p>4#4 Power 4#16 Service I</p>	<p>46</p>  <p>40#20, 4#16 2#8 Coax Service M</p>	<p>61</p>  <p>61#20 Service I</p>	<p>81</p>  <p>22#22D 3#20, 11#16 2#12 3#8 Quadrax</p>	<p>82</p>  <p>97#22D 2#8 Quadrax</p>
<p>86</p>  <p>40#20 4#16 2#8 Quadrax</p>	<p>88</p>  <p>8#8 Quadrax</p>	<p>90</p>  <p>40#20, 4#16 2#8 Twinax Service I</p>					

8LT Series

MIL-DTL-38999 Series I



Description

- High contact density
- Bayonet coupling
- Contact protection : 100% Scoop proof
- Shell size from 9 to 25
- Accessories available (protective caps, backshells, etc...)
- RFI - EMI shielding and shell to shell continuity
- Hermetic
- Aluminum alloy, protection by cadmium, nickel, green zinc cobalt or black zinc nickel plating

Applications

- Civil and Military Aerospace
- Marine Equipments
- Communications Equipments
- Medical Instrumentation
- Ballistic Missiles & Weapon Systems
- Armored Carriers & Tanks
- Test Equipments

Technical features

Mechanical

- Shell: aluminum alloy
- Plating:
 - . black zinc nickel (Z)
 - . olive green cadmium (B)
 - . nickel (F)
 - . green zinc cobalt (ZC)
- Insulator: thermoplastic or metallic version available for specification 284 & 384
- Grommet or seal: liquid silicone rubber or fluorocarbene elastomer for specification 022
- Contact: copper alloy
- Plating contact: gold over nickel
- Endurance: 500 mating / unmating operations

- Shock: 300 g during 3 ms and as per MIL S 901 grade A
- Vibration:
 - . Sine 10 to 2000 Hz - 30 g
 - . Random 100 à 300 Hz - 5 g²/Hz
- Contact retention (min force in N):

Contacts size	22	20	16	12	8	4
Min force in N	44	67	111	111	111	200

Electrical

- Test voltage (Vrms)

Service	sea level	at 21000 m
R	400	N/A
M	1 300	800
N	1 000	600
I	1 800	1 000
II	2 300	1 000

- Insulation resistance: ≥ 5 000 MW (at 500 Vcc)

- Contact resistance:

Contacts size	26	22	20	16	12	8	4
Resistance mΩ	16	14.6	7.3	3.8	3.5	3	2

- Contact rating:

Contacts size	26	22	20	16	12	8	4
Rating (A)	3	5	7.5	13	23	45	80

- Shell continuity:
 - . black zinc nickel: 2.5 mΩ
 - . olive green plating: 2.5 mΩ
 - . nickel plating: 1 mΩ
 - . green zinc cobalt: 2.5 mΩ

- Shielding: 90 db at 100 MHz, 50 db at 10 000 MHz
- Electrical continuity between contact and shell for specification 284 & 384: 10 mΩ max

Climatic

- Temperature range:
 - . black zinc nickel plating (Z) - 65°C +175°C
 - . olive green cadmium plating (B) - 65°C +175°C
 - . nickel plating (F) - 65°C +200°C
 - . green zinc cobalt plating (ZC) - 65°C +200°C
- Sealing: mated connectors
Differential pressure 2 bars:
leakage ≤ 16 cm³/h
- Salt spray as per:
 - . MIL STD 1344 method 1001 : - 500 hours (plating B, ZC and Z) - 48 hours (plating F)
 - . NFC 93422 : - 48 hours (plating F)
- Resistance to fluids
 - . As per MIL DTL 38999, hydraulic fluids, solvents
 - . Specification 022 for fuel immersion (please consult us)

8LT Series

MIL-DTL-38999 Series I

MIL-DTL-38999 connector part numbers

Basic series	MS	27466	T	13	B	35	P			L
Shell type										
27466: Square flange receptacle (front mounting)										
27656: Square flange receptacle (rear mounting)										
27468: Jam nut receptacle										
27467: Plug with RFI shielding										
27505: Square flange receptacle, not accepting backshell										
Class										
E: Without thread for back fitting, not accepting backshell for MS27505 and MS27467 only										
T: With thread for backfitting, supplied without backshell (excepted MS27505)										
Shell size										
09; 11; 13; 15; 17; 19; 21; 23; 25										
Plating										
Z: Black zinc nickel F: Nickel B: Olive green cadmium										
Contact layout										
See tables pages 8 to 11										
Contact type										
P: Male A: Connector supplied less pin contact or with specific contacts (Connector marking : A + orientation)										
S: Female B: Connector supplied less socket contact or with specific contacts (Connector marking : B + orientation)										
Orientation (1)										
None: Normal (N)										
A, B, C, D see table page 48										
Special custom										
None: Standard plastic cap										
M: Antistatic plastic cap										
L: For P or S contact type only, connector delivered without contacts, connector marking P or S (without L)										

HE 308 connector part numbers

Basic series	HE308	00	T	13	35	P	N	7	M	L
Shell type										
00: Square flange receptacle										
07: Jam nut receptacle										
06: Plug with RFI shielding										
11: Jam nut receptacle with PC Tail contacts										
Class										
T: Sealed										
Shell size										
09; 11; 13; 15; 17; 19; 21; 23; 25										
Contact layout										
See tables pages 8 to 11										
Contact type										
P: Male										
S: Female										
Orientation (1)										
N, A, B, C, D see table page 48										
Plating										
6: Nickel										
7: Olive green cadmium										
Contractual specification										
Special custom										
None: Standard plastic cap										
M: Antistatic plastic cap										
Specification										
None: Connector supplied with contact										
L: Connector supplied without contact										

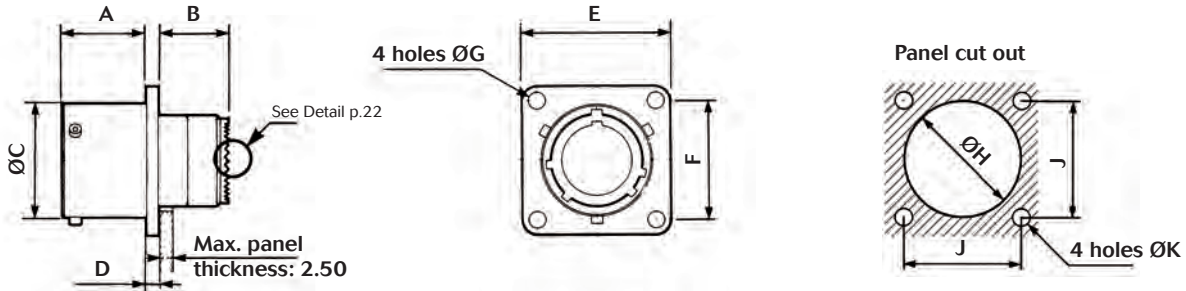
(1) Orientations B & C not developed for shell size number 9.

8LT Series

MIL-DTL-38999 Series I

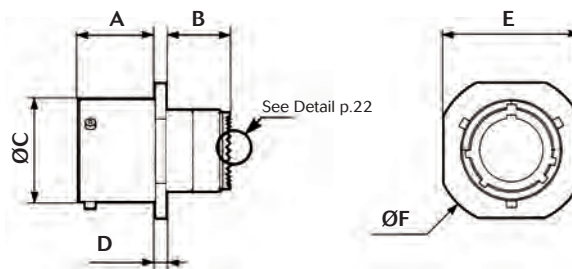
Dimensions

Type 0 - Square flange receptacle



Shell size	A		B		ØC		D		E		F	ØG		ØH Min	J	K ^{±0.15}
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		Min	Max			
09	15.93	16.05	13.23	13.49	14.40	14.53	2.14	2.54	23.70	24.30	18.26	3.25	3.35	15.70	18.26	3.25
11					17.65	17.78			26.05	26.70	20.62			18.70	20.62	
13					21.40	21.59			28.50	29.05	23.01			21.80	23.01	
15					24.65	24.77			30.85	31.45	24.61			25.00	24.61	
17					27.82	27.94			33.20	33.80	26.97			28.30	26.97	
19					29.24	30.66			36.40	37.00	29.36			31.00	29.36	
21	15.17	15.29			33.70	33.83	2.90	3.30	39.55	40.15	31.75	3.73	3.83	34.20	31.75	3.91
23					36.92	37.00			42.75	43.35	34.93			37.30	34.92	
25					40.06	40.18			46.00	46.50	38.10			40.50	38.10	

Type 1 - Cable connecting receptacle



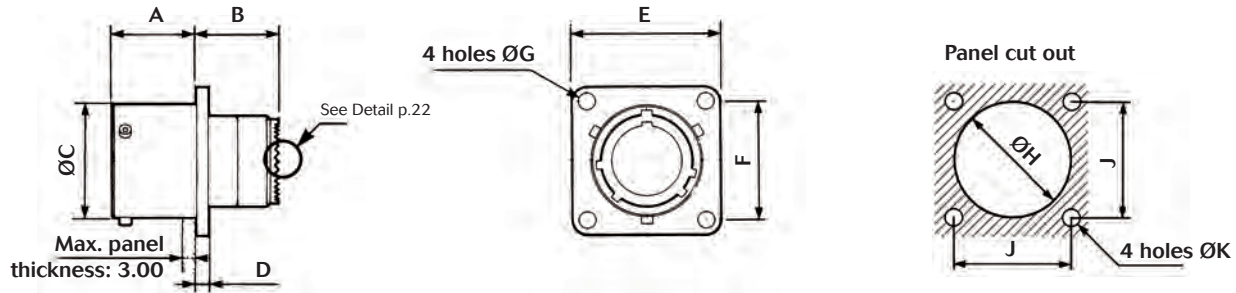
Shell size	A		B		ØC		D		E		ØF	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
9	15.93	16.05	13.23	13.49	14.40	14.53	2.14	2.54	18.35	18.92	21.80	22.35
11					17.65	17.78			21.65	22.22	25.10	25.65
13					21.40	21.59			25.05	25.62	28.50	29.05
15					24.65	24.77			27.25	27.82	30.70	31.25
17					27.82	27.94			30.78	31.35	34.10	34.65
19					29.24	30.66			34.05	34.62	37.50	38.05
21	15.17	15.29			33.70	33.83	2.90	3.30	37.45	38.02	40.90	41.45
23					36.92	37.00			41.45	42.02	44.90	45.45
25					40.06	40.18			45.93	46.50	49.40	49.95

Note: All dimensions are in millimeters (mm)

8LT Series

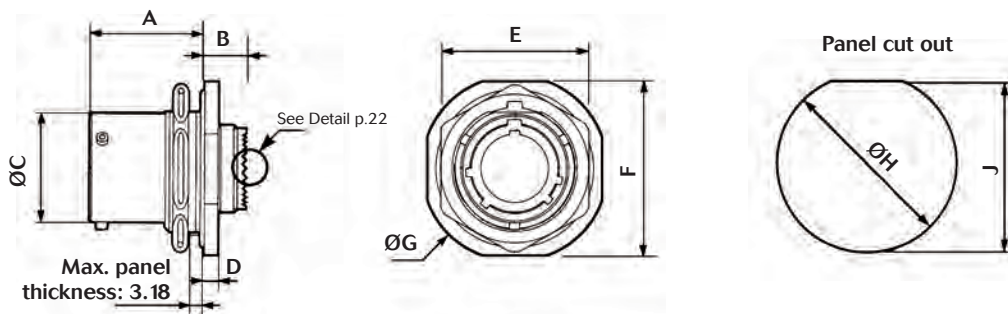
MIL-DTL-38999 Series I

Type 3 - Square flange receptacle (rear mounting)



Shell size	A		B		ØC		D		E		F	ØG		ØH Min	J	K ^{±0.15}
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		Min	Max			
09					14.40	14.53			23.70	24.30	18.26			16.66	18.26	
11					17.65	17.78			26.05	26.70	20.62			20.22	20.62	
13					21.40	21.59			28.50	29.05	23.01			23.42	23.01	
15	20.71	20.83	10.40	11.90	24.65	24.77	2.14	2.54	30.85	31.45	24.61	3.25	3.35	26.59	24.61	3.25
17					27.82	27.94			33.20	33.8	26.97			30.96	26.97	
19					29.24	30.66			36.40	37.00	29.36			32.94	29.36	
21					33.70	33.83			39.55	40.15	31.75			36.12	31.75	
23	19.96	20.08	11.15	12.70	36.92	37.00	2.90	3.30	42.75	43.35	34.93	3.73	3.83	39.29	34.92	3.91
25					40.06	40.18			46.00	46.50	38.10			42.47	38.10	

Type 7 - Jam nut receptacle Type 11 - HE 308



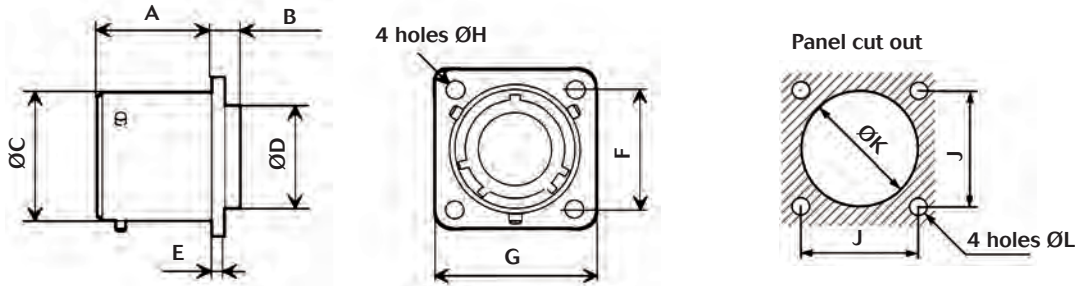
Shell size	F		E		ØC		ØG		A		B		D		ØH	J
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
09	26.60	27.35	21.95	22.35	14.40	14.53	29.90	30.58							17.78	17.02
11	31.40	32.10	25.15	25.55	17.65	17.78	34.60	35.30							20.96	19.59
13	34.60	35.31	29.80	30.30	21.40	21.59	37.75	38.50					2.60	3.00	25.65	24.26
15	37.80	38.49	33.05	33.45	24.65	24.77	41.00	41.65							28.83	27.56
17	40.90	41.63	36.25	36.65	27.82	27.94	44.11	44.85	23.12	23.36	8.18	8.32			32.00	30.73
19	45.63	46.37	39.40	39.80	29.24	30.66	48.90	49.60							35.18	33.91
21	48.84	49.58	42.60	43.00	33.70	33.83	52.00	52.75							38.35	37.08
23	52.02	52.76	45.75	46.15	36.92	37.00	55.30	55.94					3.35	3.79	41.53	40.26
25	55.19	55.93	50.65	50.95	40.06	40.18	58.40	59.10							44.70	43.45

Note: All dimensions are in millimeters (mm)

8LT Series

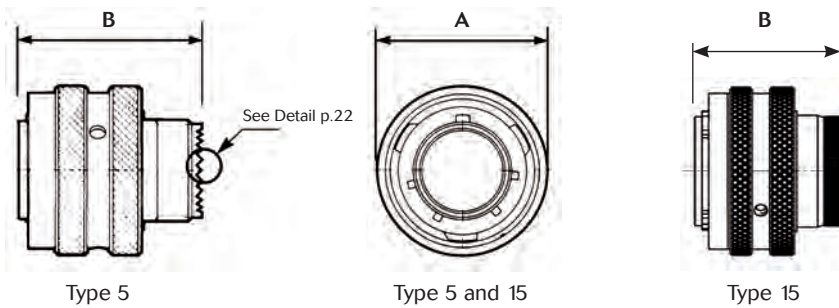
MIL-DTL-38999 Series I

Type 2 - Short square flange receptacle (not accepting backshell)



Shell size	A		B		ØC		ØD		E		F	G		ØH		J	ØK	ØL
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		Min	Max	Min	Max			
09	20.71	20.83	5.40	5.55	14.40	14.53	9.85	9.95	2.14	2.54	18.26	23.70	24.30	3.25	3.35	18.26	16.66	3.25
11					17.65	17.78	12.80	12.90			20.62	26.05	26.70			20.62	20.22	
13					21.40	21.59	16.00	16.10			23.01	28.50	29.05			23.01	23.42	
15					24.65	24.77	18.95	19.05			24.61	30.85	31.45			24.61	26.59	
17					27.82	27.94	22.10	22.20			26.97	33.20	33.80			26.97	30.96	
19					29.24	30.66	25.10	25.20			29.36	36.40	37.00			29.36	32.94	
21	19.96	20.08	6.15	6.35	33.70	33.83	28.25	28.35	2.90	3.30	31.75	39.55	40.15	3.73	3.83	31.75	36.12	3.91
23					36.92	37.00	31.40	31.50			34.93	42.75	43.35			34.92	39.29	
25					40.06	40.18	34.60	34.70			38.10	46.00	46.50			38.10	42.47	

Type 5 - Plug with RFI shielding Type 15 - Plug with RFI shielding (not accepting backshell)



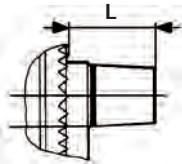
Shell size		09	11	13	15	17	19	21	23	25
A	Max	21.80	25.00	29.30	32.50	35.70	38.50	41.70	43.85	48.00
	Min	31.28	31.28	31.28	31.28	31.28	31.28	31.28	31.28	31.28
B	Max	31.35	31.35	31.35	31.35	31.35	31.35	31.35	31.35	31.35

Note: All dimensions are in millimeters (mm)

8LT Series

MIL-DTL-38999 Series I

Detail

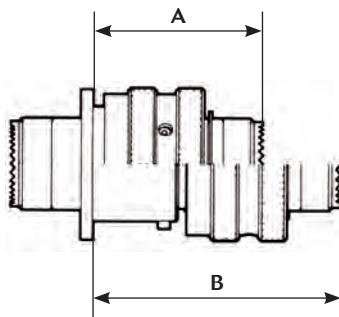


Sealing bushing
used for triaxial
#8 protude

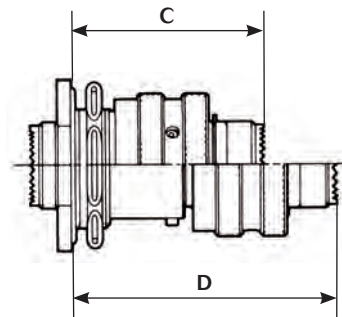
Shell Type	Type 0	Type 1	Type 3	Type 5	Type 7
L max	13.39	13.58	13.58	13.54	13.58

Mated connectors dimensions

Square flange receptacle (type 0)
with plug (type 5)



Jam nut receptacle (type 7)
with plug (type 5)



Shell Size	A Max	B Max	C Max	D Max
09	33.30	47.40	40.60	54.70
11				
13				
15				
17				
19	32.50	46.70	40.60	54.70
21				
23				
25				

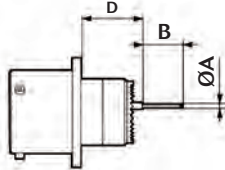
Note: All dimensions are in millimeters (mm)

8LT Series

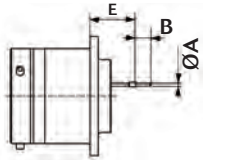
MIL-DTL-38999 Series I

Receptacle with PC Tail contact

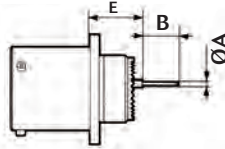
Type 0
Square flange receptacle



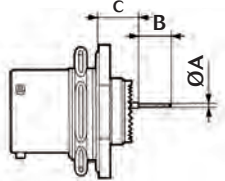
Type 2
Short square flange receptacle



Type 3
Square flange receptacle (rear mounting)



Type 7
Jam nut receptacle

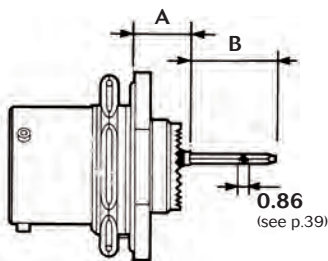


(¹) M: Male Contact
F: Female Contact

(²) C: Short PC tail
M: Medium PC tail
L: Long PC tail
S: Specific PC tail

Shell Size				09	11	13	15	17	19	21	23	25	
	Contact size	Contact type (¹)	PC tail contact (²)										
ØA	#22D	M & F	C & L	0.70									
			S	0.50									
	M	M	0.50										
	#20	M & F	C	0.70									
B	#22D	M & F	C	1.15									
			S	4 ⁰ _{0.20}									
	M	M	5 ^{+0.1}										
	#20	M & F	C	8.5 ⁰ _{0.20}									
C type 7	#22D	M	C & L	Max	10.06							15.25	
			M	Min	9.07							14.08	
		F	C & L	Max	10.21							15.25	
			M	Min	9.23							13.75	
	8LT HE308 #22D	M	S	Max	10.06							15.25	
				Min	8.74							14.08	
		F	S	Max	10.23							15.25	
				Min	8.91							13.75	
	8LT/HE308 #20 & #16	M & F	C	Max	10.23							15.25	
				Min	9.24							13.75	
		M	C & L	Max	15.08							15.25	
				M	Min	13.91							13.75
F	C & L	Max	15.22							15.25			
		M	Min	14.05							13.75		
D type 0	#22D	M	C & L	Max	15.08							15.25	
			M	Min	13.91							14.08	
		F	C & L	Max	15.22							15.25	
			M	Min	14.05							13.75	
	#20 & #16	M & F	C	Max	15.08							15.25	
				M	Min	13.91							14.08
		F	S	Max	15.22							15.25	
				M	Min	14.05							13.75
	E type 2 type 3	#22D	M	C & L	Max	12.47							13.39
				F	Min	11.60							12.19
			F	C & L	Max	12.47							13.39
				M	Min	11.27							12.19
#20 & #16		M & F	C	Max	12.64	-					12.64	13.39	
				M	Min	11.77	-					11.77	12.19
		F	S	Max	12.64	-					12.64	13.39	
				M	Min	11.44	-					11.44	12.19
#20 & #16		M & F	C	Max	12.64							13.39	
				M	Min	11.77							12.19

Type 7 receptacle with wire wrap contacts



Contact size	Contact type	A	B Max
#22D	W (3 wraps)	9.07 / 10.06	16.00
#20	T (2 wraps)	9.7 / 10.06	12.60

Note: All dimensions are in millimeters (mm)