

SOURIAU

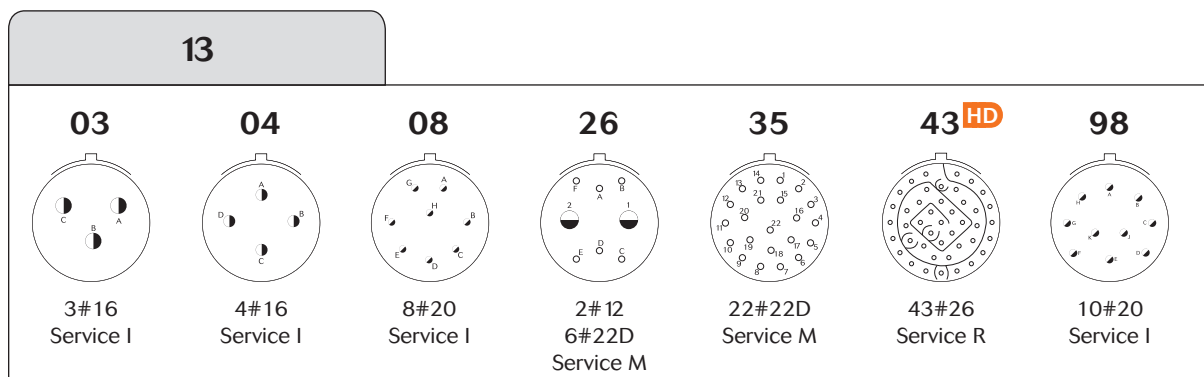
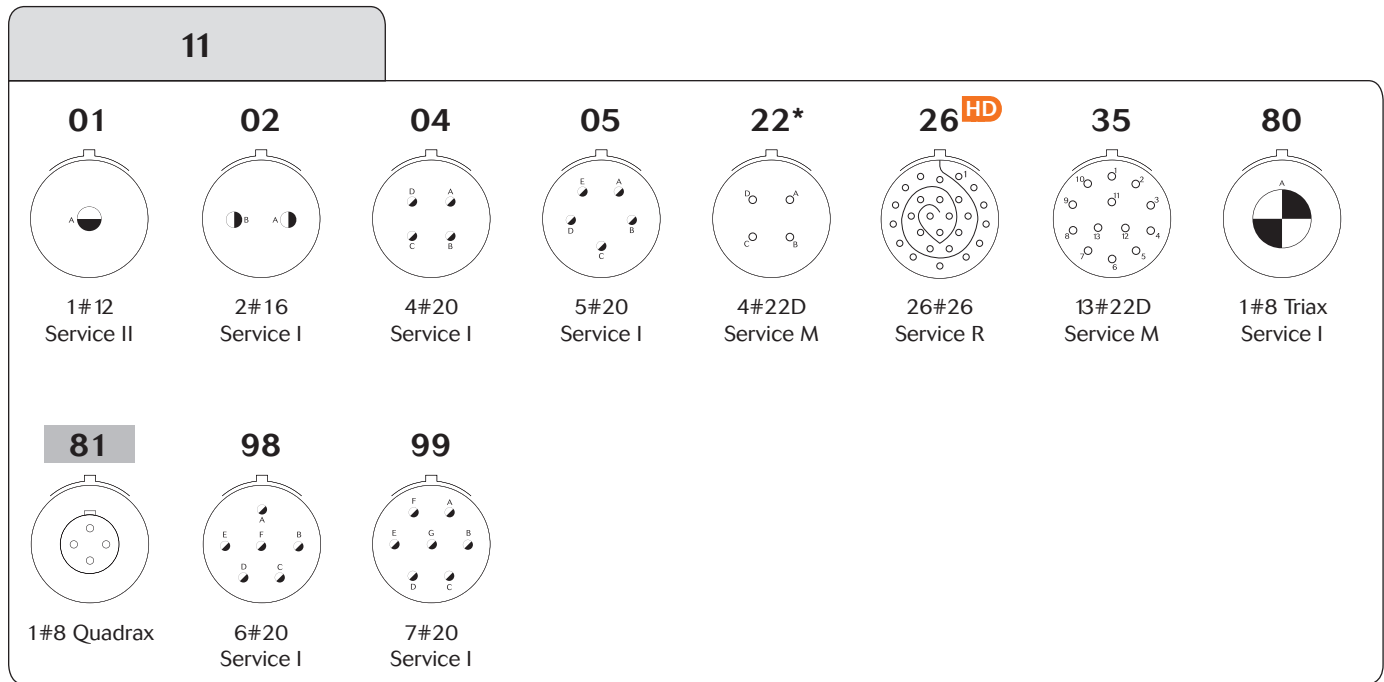
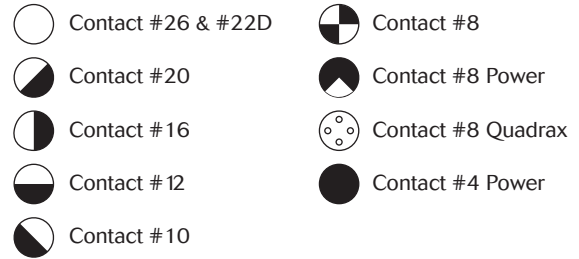
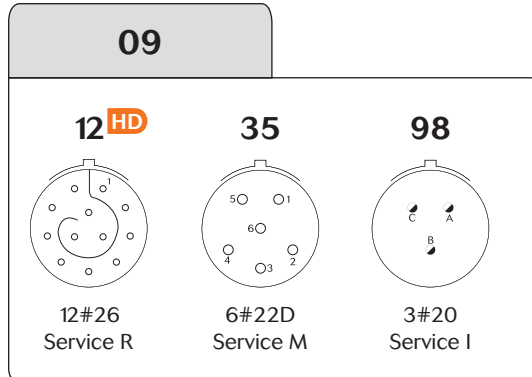
8LT Series

MIL-DTL-38999 Series I

8LT Series

MIL-DTL-38999 Series I

Contact layouts

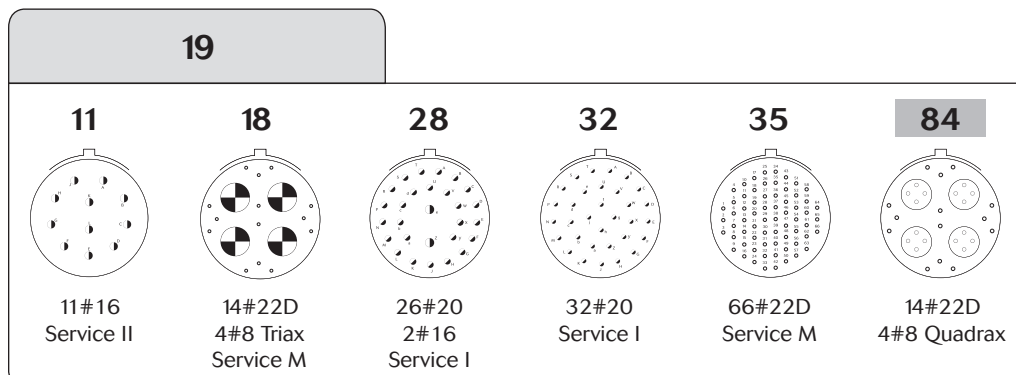
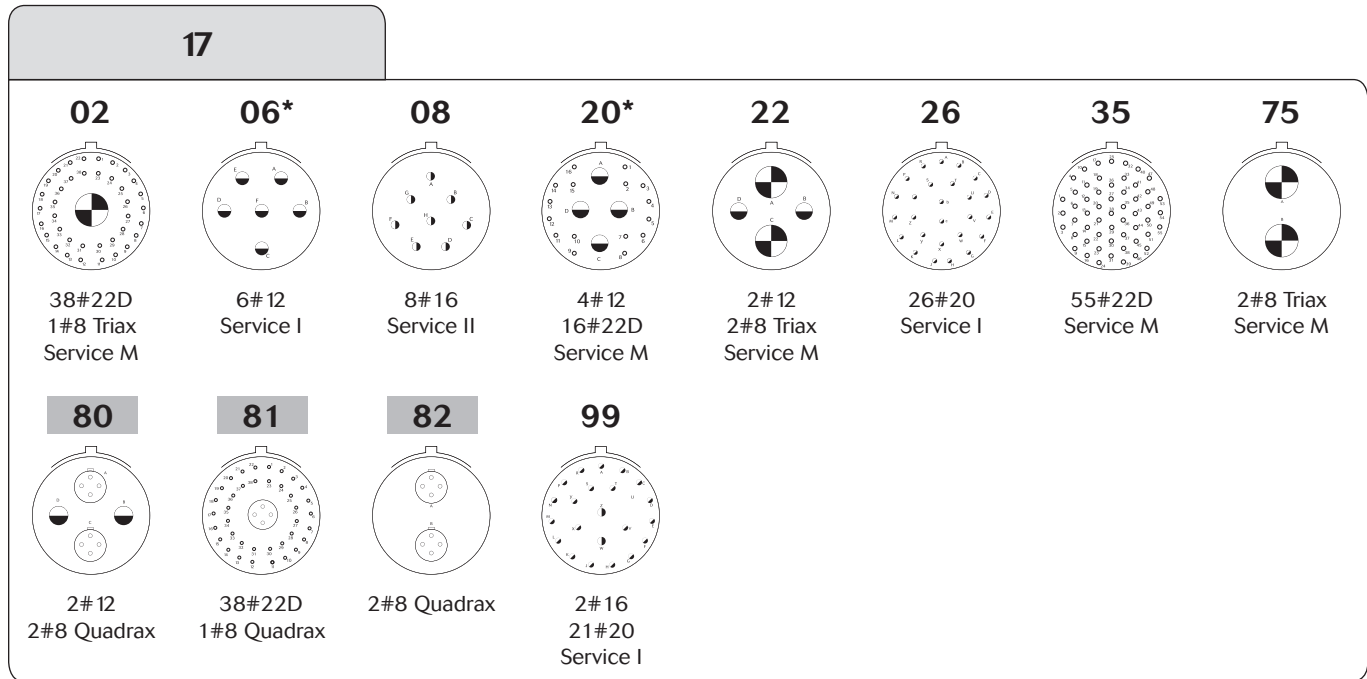
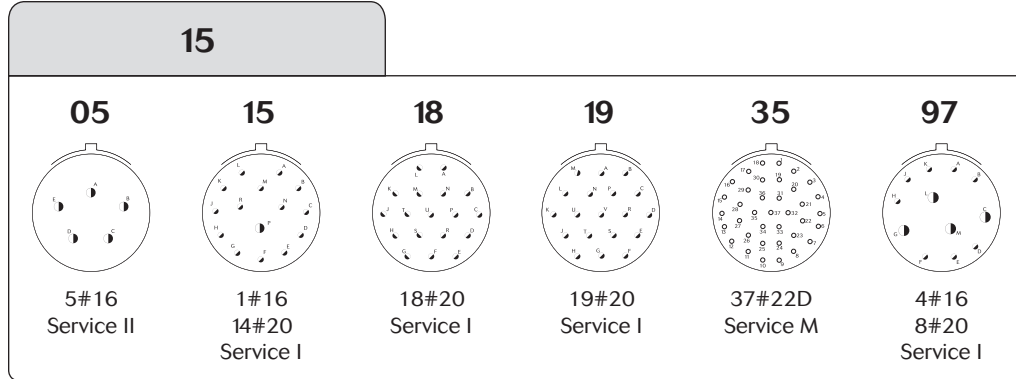


Ethernet Quadrax **HD** High Density layout * Available on specific request. Please consult us.

8LT Series

MIL-DTL-38999 Series I

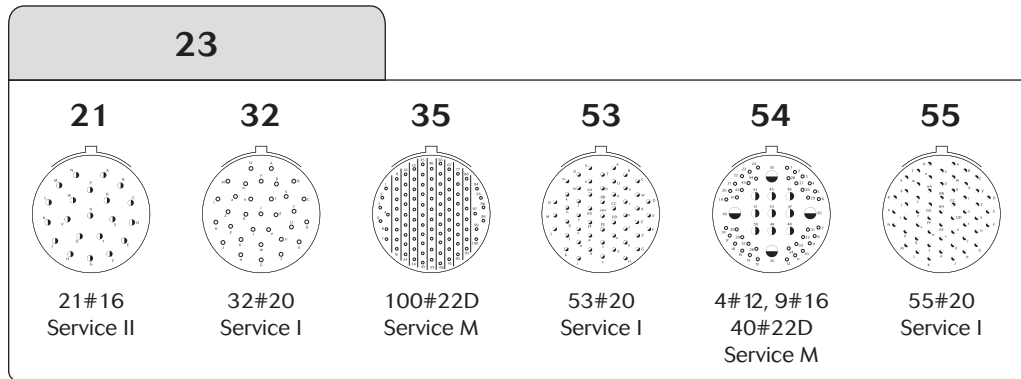
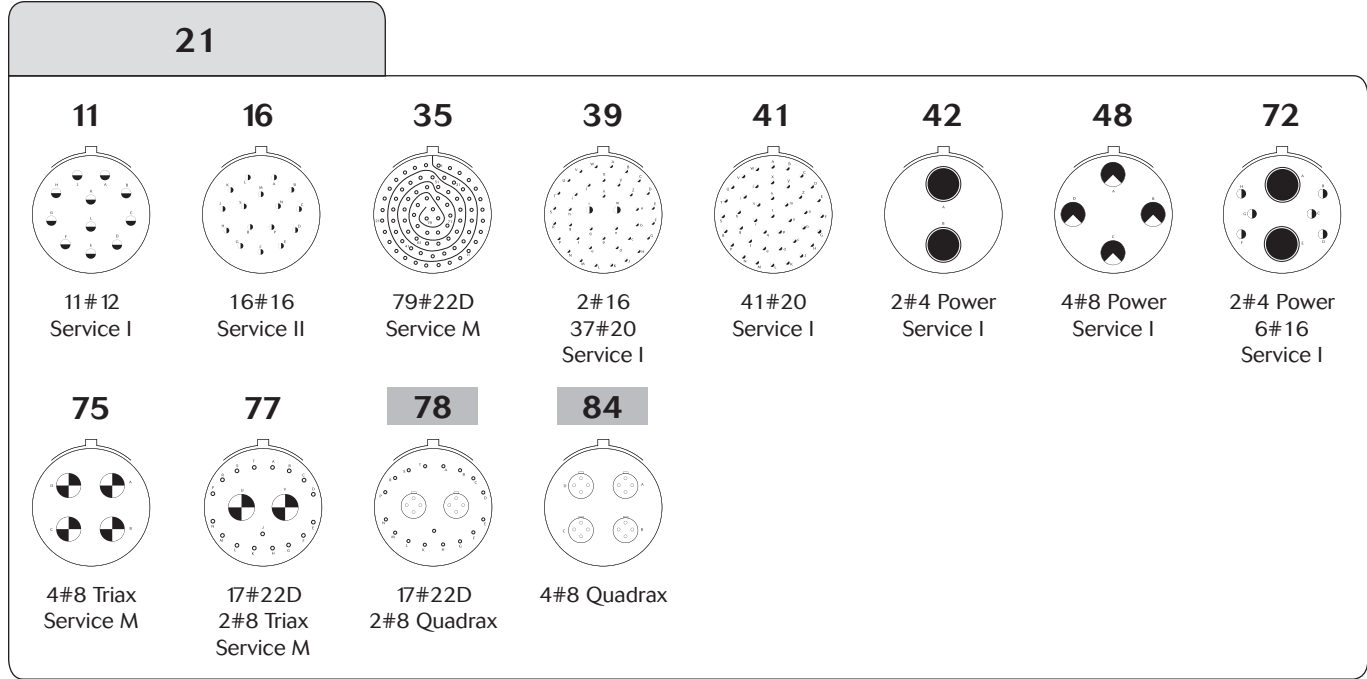
Contact layouts



8LT Series

MIL-DTL-38999 Series I

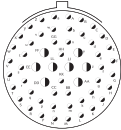
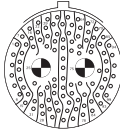
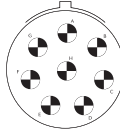
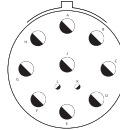
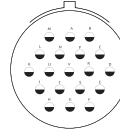
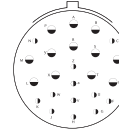
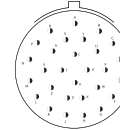
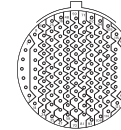
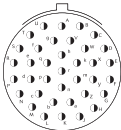
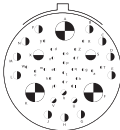
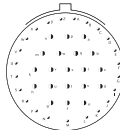

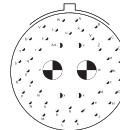
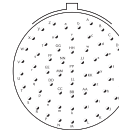
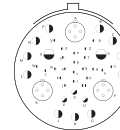
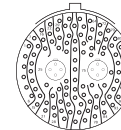

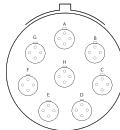
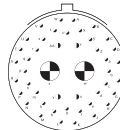
Contact layouts



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

Contact layouts (matrix)

Shell Size	Layout	Service	8LT	8LT2	MIL-DTL-38999 (QPL)		HE 308		Nber of Contacts	#26	#22D	#20	#16	#12	#10	#8	#4 Power	
					MS (1)	MS27505	Not Rack	Rack										
09	09-12	R							12	12								
	09-35	M			Q	Q	O	X	6		6							
	09-98	I			Q		O	X	3			3						
11	11-01	II						•	1					1				
	11-02	I			Q			•	2			2						
	11-04	I			Q			•	4			4						
	11-05	I			Q			•	5			5						
	11-22	M							4		4							
	11-26	R							26	26								
	11-35	M			Q	Q	O	X	•	13		13						
	11-80	I							1								1 Triax	
	11-81	-							1									1 Qdx
	11-98	I			Q	Q	O	X	•	6		6						
	11-99	I			Q				•	7		7						
13	13-03	I							3			3						
	13-04	I			Q		O	•	4			4						
	13-08	I			Q			•	8			8						
	13-26	M							8		6			2				
	13-35	M			Q	Q	O	X	•	22		22						
	13-43	R							43	43								
	13-98	I			Q	Q	O	X	•	10		10						
15	15-05	II			Q		O	X	•	5		5						
	15-15	I						•	15		14	1						
	15-18	I			Q	Q	O		•	18		18						
	15-19	I			Q	Q	O	X	•	19		19						
	15-35	M			Q	Q	O	X	•	37		37						
	15-97	I			Q	Q	O	X	•	12		8	4					
17	17-02	M							39		38						1 Triax	
	17-06	I			Q	Q	O	•	6		6							
	17-08	II			Q		O	X	•	8		8						
	17-20	M							20		16			4				
	17-22	M							4					2			2 Triax	
	17-26	I			Q	Q	O	X	•	26		26						
	17-35	M			Q	Q	O	X	•	55		55						
	17-75	M						•	2								2 Triax	
	17-80	-							4					2			2 Qdx	
	17-81	-							39		38						1 Qdx	
	17-82	-							2								2 Qdx	
17-99	I			Q	Q	O	X	•	23		21	2						
19	19-11	II			Q		O	X	•	11		11						
	19-18	M							18		14						4 Triax	
	19-28	I			Q			•	28		26	2						
	19-32	I			Q	Q	O	X	•	32		32						
	19-35	M			Q	Q	O	X	•	66		66						
	19-84	-							18		14						4 Qdx	

Souriau's layout

Q Qualified layout (QPL) MIL - DTL 38999

(1) Available MS27466 & MS27467 & MS27468 & MS27656

O Layout according to UTE C 93-422 norm

X Qualified Layout HE308 for «Ministère de la Défense» DGA DTAT

• Layout according to C5935X0005 norm

#8 Qdx: Quadrax

8LT Series

MIL-DTL-38999 Series I

Contact layouts (matrix)

Shell Size	Layout	Service	8LT	8LT2	MIL-DTL-38999 (QPL)		HE 308			Nber of Contacts	#26	#22D	#20	#16	#12	#10	# 8	#4 Power
					MS (1)	MS27505	Not Rack		Rack									
21	21-11	I			Q		O	X	•	11					11			
	21-16	II			Q	Q	O	X	•	16			16					
	21-35	M			Q	Q	O	X	•	79	79							
	21-39	I			Q	Q	O		•	39		37	2					
	21-41	I			Q	Q	O	X	•	41		41						
	21-42	I								2								2
	21-48	I								4							4 Pow	
	21-72	I								8			6					2
	21-75	-				Q			•	4							4 Triax	
	21-77	M								19	17						2 Triax	
	21-78	-								19	17						2 Qdx	
	21-84	-								4							4 Qdx	
23	23-21	II			Q		O		•	21			21					
	23-32	I			Q	Q				32		32						
	23-35	M			Q	Q	O	X	•	100	100							
	23-53	I			Q		O	X	•	53		53						
	23-54	M								53	40		9	4				
	23-55	I				Q			•	55		55						
25	25-04	I			Q	Q				56		48	8					
	25-07	M			Q					99	97						2 Triax	
	25-08	-								8							8 Triax	
	25-11	N								11		2			9			
	25-19	I			Q		O	X		19				19				
	25-24	II			Q					24			12	12				
	25-29	I			Q		O	X		29			29					
	25-35	M			Q	Q	O	X		128	128							
	25-37	I								37			37					
	25-41	N								41	22	3	11	2			3 Triax	
	25-43	I			Q					43		23	20					
	25-44	I								8			4					4
	25-46	I			Q					46		40	4				2 Coax	
	25-61	I			Q		O	X		61		61						
	25-81	N								41	22	3	11	2			3 Qdx	
	25-82	M								99	97						2 Qdx	
25-86	I								46		40	4				2 Qdx		
25-88	-								8							8 Qdx		
25-90	I								46		40	4				2 Triax		

Souriau's layout

Q Qualified layout (QPL) MIL - DTL 38999

(1) Available MS27466 & MS27467 & MS27468 & MS27656

O Layout according to UTE C 93-422 norm

X Qualified Layout HE308 for «Ministère de la Défense» DGA DTAT

• Layout according to C5935X0005 norm

#8 Pow: Power; Qdx: Quadrx

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

Ordering information

Basic series	8LT	0	-	13	B	35	P	N			L
Shell type											
0: Square flange receptacle											
1: In line receptacle											
2: Short square flange receptacle, not accepting backshell											
3: Square flange receptacle (rear mounting)											
5: Plug with RFI shielding											
7: Jam nut receptacle											
15: Plug with RFI shielding, not accepting backshell											
Type											
-: Connector with standard crimp contacts											
L: Connector with long PC tail (male and female #22D)											
M: Connector with medium PC tail (please see page 38)											
C: Connector with short spill (male and female #22D, #20, #16, #12, #8 quadrax)											
T: Connector with male contact size 20 for wire wrap (2 wraps)											
W: Connector with male contact size 22D for wire wrap (3 wraps)											
S: Connector with specific PC Tail (male and female #22D only)											
Q: Connector with quadrax crimp contacts											
P: Connector with solder cup: . Pin: #22D & #16; Socket: #12 . Socket: #22D & #16; Pin: #12 - Please consult us											
Shell size											
09; 11; 13; 15; 17; 19; 21; 23; 25											
Plating											
Z: Black zinc nickel											
F: Nickel											
B: Olive green cadmium											
ZC: Green zinc cobalt											
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⁾											
N, A, B, C, D see table page 48											
Specifications											
None: Supplied with contact											
046: PC Tail contact with tinned plating											
251: Connector provided with power contacts with layout contacts #8											
022: Fuel tank Please consult us											
284: Quadrax grounded PC tail contact, type L, C & S only (100Ω) ⁽²⁾⁽³⁾											
308: Quadrax not grounded PC tail contact, type L, C & S only (100Ω) ⁽²⁾											
620: Quadrax grounded crimp contact, type Q only (100Ω) ⁽²⁾⁽³⁾											
621: Quadrax not grounded crimp contact, type Q only (100Ω) ⁽²⁾											
384: Quadrax grounded crimp contact, type Q only (150Ω) ⁽²⁾⁽³⁾											
408: Quadrax not grounded crimp contact, type Q only (150Ω) ⁽²⁾											
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)											

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

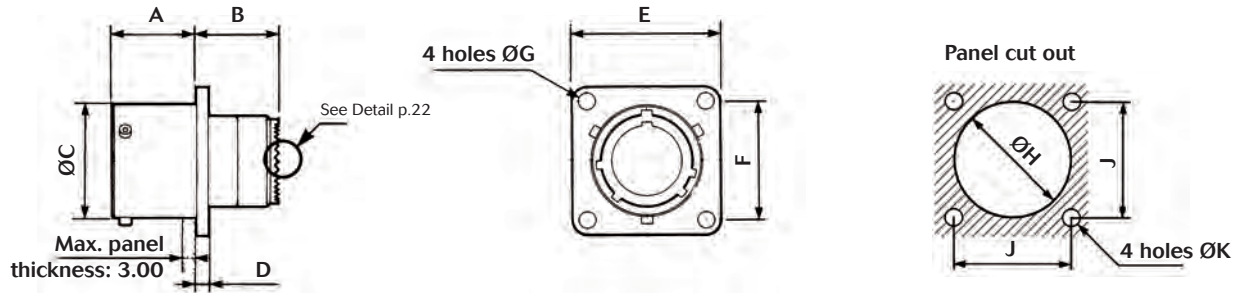
(2) Type shell 0, 3 and 5 available only.

(3) Excepted mixed layouts with quadrax and signal contacts. Please consult us.

8LT Series

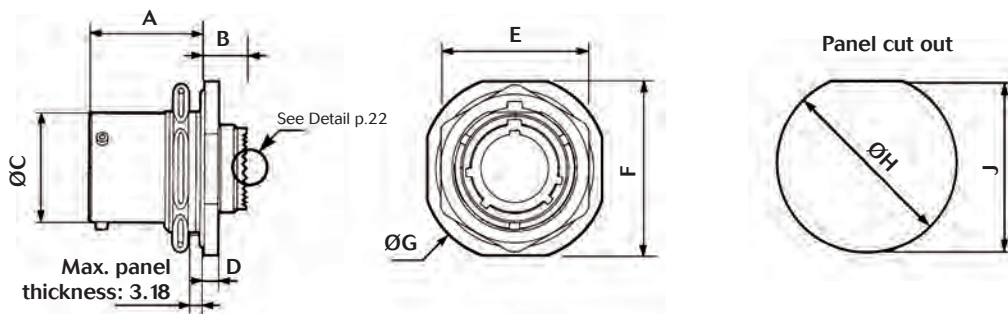
MIL-DTL-38999 Series I

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	20.71	20.83	10.40	11.90	14.40	14.53	2.14	2.54	23.70	24.30	18.26	3.25	3.35	16.66	18.26	3.25
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					24.65	24.77			30.85	31.45	24.61			26.59	24.61	
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	19.96	20.08	11.15	12.70	33.70	33.83	2.90	3.30	39.55	40.15	31.75	3.73	3.83	36.12	31.75	3.91
23					36.92	37.00			42.75	43.35	34.93			39.29	34.92	
25					40.06	40.18			46.00	46.50	38.10			42.47	38.10	

Type 7 - Jam nut receptacle Type 11 - HE 308



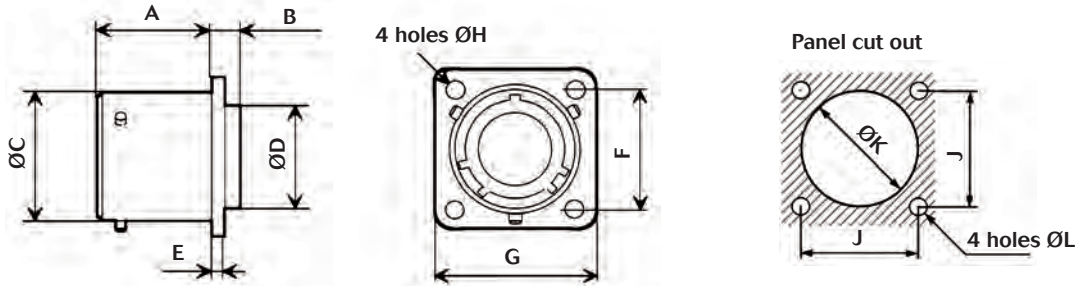
Shell size	F		E		ØC		ØG		A		B		D		ØH	J
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
09	26.60	27.35	21.95	22.35	14.40	14.53	29.90	30.58	23.12	23.36	8.18	8.32	2.60	3.00	17.78	17.02
11	31.40	32.10	25.15	25.55	17.65	17.78	34.60	35.30							20.96	19.59
13	34.60	35.31	29.80	30.30	21.40	21.59	37.75	38.50							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							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	3.35	3.79	38.35	37.08				
23	52.02	52.76	45.75	46.15	36.92	37.00	55.30	55.94			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

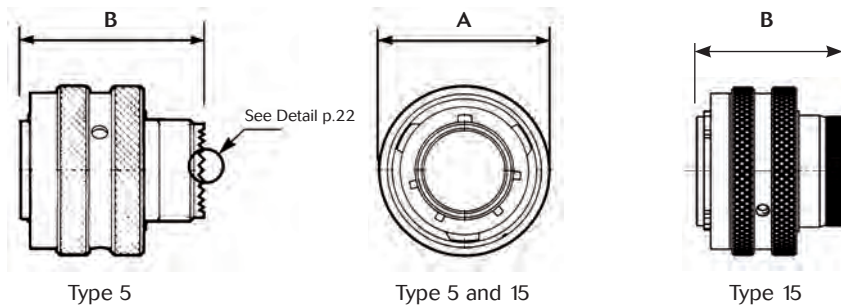
MIL-DTL-38999 Series I

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

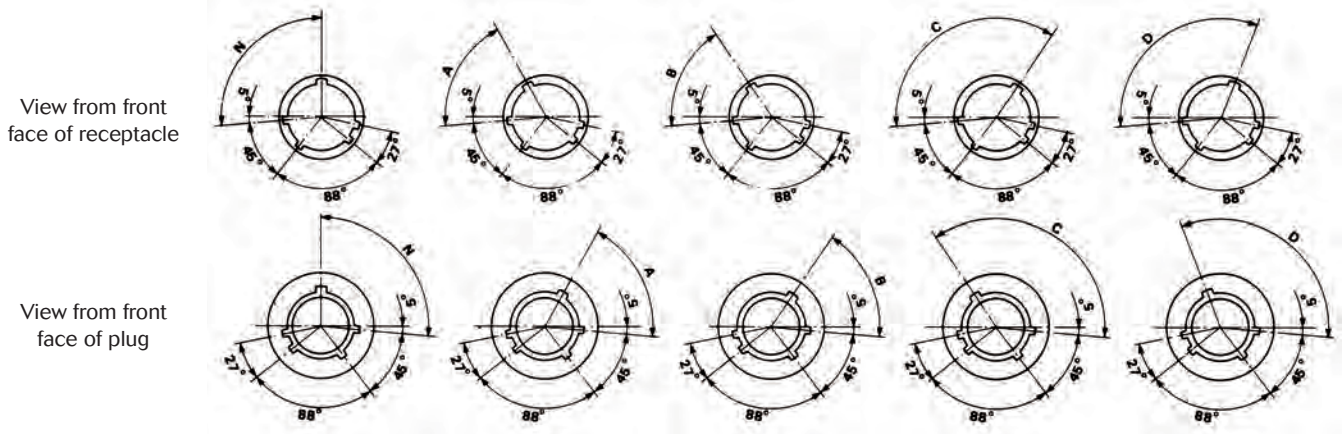
MIL-DTL-38999 Series I

Boots

Boot Size	Part number	Admissible wire section mm ²		For cable
#8 Power	8599-4542	5	6.5	8.48 à 10 mm ²
	8599-4547	2.5	4	#10
#4 Power	8599-4594	6.35	7.5	#4 - #5
	8599-4593	4	5.8	#6 - #8

Orientations

Polarization is determined by the master keyway position.
The secondary keyway positions remain fixed.



Shell size	Angles (degrees)				
	N	A	B	C	D
09	95	77	-	-	113
11	95	81	67	123	109
13	95	75	63	127	115
15	95	74	61	129	116
17	95	77	65	125	113
19	95	77	65	125	113
21	95	77	65	125	113
23	95	80	69	121	110
25	95	80	69	121	110