

# 8LT Series



## Applications

High density connectors for all military and aeronautical purposes.

## Standards

MIL-C 38999 Series I - QPL approved  
 NFC 93422 HE 308  
 DTAT-C 5935 X 0005 (HE 308 standard)  
 GAM/T1 list



## Description

- High density connector from 1 to 128 contacts
- Sizes 22D, 20, 16, 12, # 16 coax and # 8 triax
- Bayonet locking system
- 100% scoop proof

## Characteristics

### Mechanical

- Shell : aluminum alloy
- Plating :
  - olive green cadmium (B)
  - nickel (F)
- Insulator : thermoplastic
- Grommet and seal : silicone elastomer
- Contact : copper alloy
- Plating : gold over nickel
- Endurance : 500 cycles
- Shock : 300 g during 3 ms and MIL-S901 grade A
- Vibration : sine 10 to 2000 H 30 g random 100 to 300 Hz - 5 (g<sup>2</sup>/Hz)
- Contact retention : (mini force in N)
  - size 22 D : 45 N    size 20 : 67 N
  - size 16 : 110 N    size 12 : 110 N
  - size 8 : 110 N

### Electrical

#### Test voltage (Vrms)

Service	sea level	at 21000 m
M	1300	800
I	1800	1000
II	2300	1000

- Contact resistance :
  - resistance of wire included in measurement :
  - size 22D : 14.6 mΩ    size 20 : 7.3 mΩ
  - size 16 : 3.8 mΩ    size 12 : 1.7 mΩ
- Insulation resistance : ≥ 5000 MΩ (at 500 Vdc)
- Contact rating :
  - size 22D : 5 A    size 20 : 7.5 A
  - size 16 : 13 A    size 12 : 23 A
- Shell continuity :
  - olive green plating : 2.5 mΩ
  - nickel plating : 1 mΩ
- Shielding : - 90 dB to 100 MHz  
 - 50 dB to 10000 MHz
- Triaxial contact : # 8
  - bandwidth : 0 - 20 MHz
  - voltage rating : 500 Vac Max.  
 125 Vac at 21000 m
  - voltage drop :  
 inner and middle contact ≤ 55 mV under 1A  
 outer contact ≤ 75 mV under 12A

### Climatic

- Temperature range :
  - cadmium plating (B) : -65°C +175°C
  - nickel plating (F) : -65°C +200°C
- Sealing : mated connectors
  - differential pressure 2 bars
  - leakage ≤ 16 cm<sup>3</sup>/hr
- Salt spray to :
  - MIL STD 1344 method 1001
  - 500 hours (version B)
  - 48 hours (version F)
  - NFC 93422
  - 48 hours (version F)
- Damp heat :
  - MIL-C 38999 : 10 cycles 24 hrs
  - NFC 93422 : 56 days

### Resistance to fluids

To MIL-C 38999 :

- MIL-L 7808    • MIL-L 23699
- MIL-H 5606    • MIL-A 8243
- MIL-C 25769    • MIL-T 5624 (JP5)
- hydraulic fluids    • solvents

To NFC 93422 :

F46 - F54 - 0/180 - H515 - H542 - XH45

## Connectors ordering information

### FCI Souriau part numbers

basic series	8LT	0	-	13	B	35	P	N
<b>shell type</b>	<ul style="list-style-type: none"> <li>0 - square flange receptacle</li> <li>3 - square flange receptacle (rear mounting)</li> <li>2 - square flange receptacle not accepting backshell</li> <li>7 - jam nut receptacle</li> <li>1 - cable connecting receptacle</li> <li>5 - plug with RFI shielding</li> </ul>							
<b>designator</b>	<ul style="list-style-type: none"> <li>— - connectors with standard crimp contacts</li> <li>L - receptacle with long spill (male and female # 22D)</li> <li>C - receptacle with short spill (male and female # 22D, # 20, # 16)</li> <li>T - receptacle with male contacts size 20 for wire wrap (2 wraps)</li> <li>W - receptacle with male contacts size 22 for wire wrap (3 wraps)</li> </ul>							
<b>shell size</b>	09-11-13-15-17-19-21-23-25							
<b>plating</b>	<ul style="list-style-type: none"> <li>F - nickel</li> <li>B - olive green cadmium (MIL-C 38999 - HE 308)</li> </ul>							
<b>contact layout</b>	- see table p 120							
<b>contact type</b>	<ul style="list-style-type: none"> <li>P - male    S - female</li> <li>A - male connector supplied less contact or with specific contacts</li> <li>B - female connector supplied less contact or with specific contacts</li> </ul>							
<b>polarization</b>	<ul style="list-style-type: none"> <li>N - normal</li> <li>A-B-C-D - see table p 77</li> </ul>							

Note : connectors supplied with standard contacts

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## MIL-C 38999 part numbers

<b>basic series</b>	<b>MS</b>	<b>27466</b>	<b>T</b>	<b>13</b>	<b>B</b>	<b>35</b>	<b>P</b>	<b>•</b>	
<b>shell type</b>	27466 - square flange receptacle (front mounting) 27656 - square flange receptacle (rear mounting) 27468 - jam nut receptacle 27467 - plug with RFI shielding								
<b>class</b>	T - with thread for backshell, supplied less backshell								
<b>shell size</b>	09-11-13-15-17-19-21-23-25								
<b>plating</b>	B - olive green cadmium				F - nickel				
<b>contact layout</b>	- see table p 120								
<b>contact type</b>	P - male		A - male connector supplied less contact or with specific contacts						
	S - female		B - female connector supplied less contact or with specific contacts						
<b>polarization</b>	N - Normal (not included in part number) A-B-C-D - see table p 77								

Note : connectors supplied with MIL-C contacts

## HE 308 part numbers

<b>basic series</b>	<b>HE308 - 00</b>	<b>T</b>	<b>13</b>	<b>- 35</b>	<b>P</b>	<b>N</b>	<b>7</b>	<b>M</b>	<b>•</b>
<b>shell type</b>	00 - square flange receptacle 07 - jam nut receptacle 06 - plug with RFI shielding 11 - jam nut receptacle with straight spill contacts								
<b>class</b>	T - sealed								
<b>shell size</b>	09-11-13-15-17-19-21-23-25								
<b>contact layout</b>	- see table p 120								
<b>contact type</b>	P - male			S - female					
<b>polarization</b>	N - normal			A-B-C-D - see table p 77					
<b>plating</b>	6 - nickel			7 - olive green cadmium					
<b>contractual specification</b>									
<b>specification</b>	- connector supplied with contact : (without specification) L - connector supplied without contact								

## Backshells ordering information

## FCI Souriau part numbers

<b>basic series</b>	<b>8LST</b>										<b>103</b>	<b>G</b>	<b>01</b>	<b>•</b>				
<b>shell size</b>	09	11	13	15	17	19	21	23	25									
<b>index number</b>	101	102	103	104	105	106	107	108	109									
<b>plating</b>	B - olive green cadmium					F - nickel												
<b>backshell type</b>	01 - backnut					03 - elbow cable clamp												
	02 - straight cable-clamp					07 - backshell for screen termination and heatshrink boot												
<b>suffix</b>	for backshell type 07 only																	
	1 - for receptacle type 0 (shells 09 to 25)							2 - for receptacle type 7 (shells 09 to 25)										
	- for plug type 5 (shells 09 to 23)							- for plug type 5 (shell 25 only)										

## HE 308 part numbers

<b>basic series</b>	<b>HE 308 - 13</b>										<b>13</b>	<b>1</b>	<b>7</b>	<b>M</b>				
<b>backshell type</b>	13 - backshell for screen termination and heatshrink boot																	
<b>shell size</b>	09-11-13-15-17-19-21-23-25																	
<b>designator</b>	1 - for receptacle type 0 (shells 09 to 25)							2 - for receptacle type 7 (shells 09 to 25)										
	- for plug type 5 (shells 09 to 23)							- for plug type 5 (shell 25 only)										
<b>plating</b>	6 - nickel					7 - olive green cadmium												
<b>contractual specification</b>																		

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## Cross reference list : FCI Souriau part numbers, HE 308 and MIL-C 38999 standards

FCI Souriau	NFC 93422 / HE 308	MIL-C 38999 Series I	Designation
8LT1 - ●● B ●● □	_____	_____	cable connecting receptacle
8LT0 - ●● B ●● □	HE308-00T ●● - ●● □ 7	MS27466T ●● B ●● □	square flange receptacle
8LT3 - ●● B ●● □	_____	MS27656T ●● B ●● □	square flange receptacle (rear mounting)
8LT7 - ●● B ●● □	HE308-07T ●● - ●● □ 7	MS27468T ●● B ●● □	jam nut receptacle
8LT0 - ●● F ●● □	HE308-00T ●● - ●● □ 6	MS27466T ●● F ●● □	square flange receptacle
8LT3 - ●● F ●● □	_____	MS27656T ●● F ●● □	square flange receptacle (rear mounting)
8LT7 - ●● F ●● □	HE308-07T ●● - ●● □ 6	MS27468T ●● F ●● □	jam nut receptacle
8LT1 - ●● F ●● □	_____	_____	cable connecting receptacle
8LT2 - ●● B ●● □	_____	_____	square flange receptacle not accepting backshell
8LT2 - ●● F ●● □	_____	_____	square flange receptacle not accepting backshell
8LT5 - ●● B ●● □	HE308-06T ●● - ●● □ 7	MS2746T ●● B ●● □	plug with RFI shielding
8LT5 - ●● F ●● □	HE308-06T ●● - ●● □ 6	MS2746T ●● F ●● □	plug with RFI shielding
8LST ●● G01	_____	_____	backnut
8LST ●● G02	HE308-11 ●● 27	_____	straight cable clamp
8LST ●● G03	HE308-12 ●● 27	_____	elbow cable clamp
8LST ●● B071	HE308-13 ●● 17	_____	backshell for screen termination and heatshrink sleeving
8LST ●● B072	HE308-13 ●● 27	_____	backshell for screen termination and heatshrink sleeving
8LST ●● B01	_____	M85049/27-●●W	backnut
8LST ●● B02	_____	_____	straight cable clamp
8LST ●● B03	_____	_____	elbow cable clamp
8LST ●● F01	_____	M85049/27-●●N	backnut
8LST ●● F02	HE308-11 ●● 26	_____	straight cable clamp
8LST ●● F03	HE308-12 ●● 26	_____	elbow cable clamp
8LST ●● F071	HE308-13 ●● 16	_____	backshell for screen termination and heatshrink sleeving
8LST ●● F072	HE308-13 ●● 26	_____	backshell for screen termination and heatshrink sleeving
8LTE04G ●●	HE308-B00 ●● 7	_____	cap for square flange receptacle
8LTE06G ●●	HE308-B07 ●● 7	_____	cap for jam nut receptacle
8LTE04F ●●	HE308-B00 ●● 6	_____	cap for square flange receptacle
8LTE06F ●●	HE308-B07 ●● 6	_____	cap for jam nut receptacle
8LTF05G ●●	HE308-B16 ●● 7	_____	cap for plug
8LTF07G ●●	HE308-B06 ●● 7	_____	cap for plug
8LTF05F ●●	HE308-B16 ●● 6	_____	cap for plug
8LTF07F ●●	HE308-B06 ●● 6	_____	cap for plug
M39029/58-360	_____	M39029/58-360	male contact # 22D
M39029/58-363	_____	M39029/58-363	male contact # 20
M39029/58-364	_____	M39029/58-364	male contact # 16
M39029/58-365	_____	M39029/58-365	male contact # 12
M39029/56-348	_____	M39029/56-348	female contact # 22D
M39029/56-351	_____	M39029/56-351	female contact # 20
M39029/56-352	_____	M39029/56-352	female contact # 16
M39029/56-353	_____	M39029/56-353	female contact # 12
8599-0988	_____	M39029/90-529	male triaxial contact # 8
8599-0998	_____	M39029/91-530	female triaxial contact # 8
8660-212	_____	MS27488-22	filler plug # 22D
8522-389A	_____	MS27488-20	filler plug # 20
8522-390A	_____	MS27488-16	filler plug # 16
8522-391A	_____	MS27488-12	filler plug # 12
8599-0308	_____	_____	dummy contact # 8
8599-0022	_____	M81969/14-01	plastic tool for contact # 22D
8522-20	_____	M81969/14-10	plastic tool for contact # 20
8522-16	_____	M81869/14-03	plastic tool for contact # 16
8522-12	_____	M81969/14-04	plastic tool for contact # 12
8660-197	_____	_____	tool for contact # 8

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## Polarization

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



Shell size	Contacts layout	Service			Number of contacts					Angles in degrees				
		M	I	II	# 22D	# 20	# 16	# 12	# 8	N	A	B	C	D
09	09-35	X			6					95	77	-	-	113
	09-98		X			3				95	77	-	-	113
11	11-35	X			13					95	81	67	123	109
	11-98		X			6				95	81	67	123	109
	11-01			X				1		95	81	67	123	109
	11-05		X			5				95	81	67	123	109
	11-04		X			4				95	81	67	123	109
13	13-35	X			22					95	75	63	127	115
	13-98		X			10				95	75	63	127	115
	13-08		X			8				95	75	63	127	115
15	15-35	X			37					95	74	61	129	116
	15-19		X			19				95	74	61	129	116
	15-05			X			5			95	74	61	129	116
	15-97		X			8	4			95	74	61	129	116
	15-18		X			18				95	74	61	129	116
17	17-35	X			55					95	77	65	125	113
	17-26		X			26				95	77	65	125	113
	17-06		X					6		95	77	65	125	113
	17-08			X			8			95	77	65	125	113
	17-99		X			21	2			95	77	65	125	113
	17-75		X						2	95	77	65	125	113
19	19-35	X			66					95	77	65	125	113
	19-32		X			32				95	77	65	125	113
	19-11			X			11			95	77	65	125	113
21	21-35	X			79					95	77	65	125	113
	21-41		X			41				95	77	65	125	113
	21-16			X			16			95	77	65	125	113
	21-11			X				11		95	77	65	125	113
	21-39		X			37	2			95	77	65	125	113
	21-75								4	95	77	65	125	113
23	23-35	X			100					95	80	69	121	110
	23-53		X			53				95	80	69	121	110
	23-21			X			21			95	80	69	121	110
25	25-35	X			128					95	80	69	121	110
	25-61		X			61				95	80	69	121	110
	25-46		X			40	4			95	80	69	121	110
	25-19		X					19		95	80	69	121	110
	25-29		X				29			95	80	69	121	110
	25-43		X			23	20			95	80	69	121	110
	25-24		X				12	12		95	80	69	121	110

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## Dimensions

### Plug type 5



### Backshells



shell size		09	11	13	15	17	19	21	23	25
<b>D 1</b>	Max	21.80 .858	25.00 .984	29.00 1.142	32.50 1.280	35.70 1.406	38.50 1.516	41.70 1.642	44.85 1.766	48.00 1.890
	<b>L1</b>	Max	31.32 1.233	31.32 1.233	31.32 1.233	31.32 1.233	31.32 1.233	31.32 1.233	31.32 1.233	31.32 1.233
<b>D2</b>	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
	<b>D3</b>	Max	6.96 .274	10.46 .412	13.36 .526	16.53 .651	19.71 .776	22.40 .882	25.56 1.006	28.75 1.132
<b>L2</b>	Max	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445
	<b>L3</b>	Max	36.66 1.443	36.66 1.443	36.66 1.443	36.66 1.443	36.66 1.443	36.66 1.443	36.66 1.443	36.66 1.443
<b>D4</b>	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
	<b>D5</b>	min	1.40 .055	1.40 .055	2.40 .094	5.60 .220	5.60 .220	8.80 .346	11.90 .469	15.10 .594
Max		3.20 .126	4.80 .189	6.40 .252	9.50 .374	12.70 .500	15.90 .626	19.10 .752	22.20 .874	25.40 1.000
<b>F</b>	Max	21.03 .828	22.63 .891	25.81 1.016	28.98 1.141	30.56 1.203	37.31 1.469	37.31 1.469	42.06 1.656	44.45 1.750
	<b>L4</b>	Max	22.22 .875	22.22 .875	22.22 .875	28.57 1.125	28.57 1.125	28.57 1.125	31.75 1.250	31.75 1.250
<b>L5</b>	Max	47.22 1.859	48.02 1.891	49.52 1.950	55.92 2.202	59.42 2.339	59.42 2.339	59.42 2.339	59.42 2.339	59.42 2.339
	<b>D6</b>	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468
<b>D7</b>		min	3.20 .126	4.00 .157	4.80 .189	5.50 .217	6.40 .252	7.90 .311	9.50 .374	10.30 .406
	Max	6.40 .252	9.50 .374	11.10 .437	14.30 .563	15.90 .626	19.10 .752	22.20 .874	23.80 .937	25.40 1.000
<b>L6</b>	Max	35.32 1.391	35.32 1.391	37.30 1.469	41.67 1.641	46.04 1.813	46.45 1.829	48.43 1.907	51.98 2.046	54.78 2.157
	<b>L7</b>	Max	25.40 1.000	26.19 1.031	27.79 1.094	30.96 1.219	32.54 1.281	34.14 1.344	34.93 1.375	36.53 1.438
<b>L8</b>		Max	60.68 2.389	60.68 2.389	62.66 2.467	67.03 2.639	71.40 2.811	71.81 2.827	73.79 2.905	77.34 3.045
	<b>D8</b>	Max	20.20 .795	23.20 .913	26.20 1.031	29.20 1.150	32.20 1.268	35.20 1.386	39.20 1.543	42.20 1.661
<b>D9</b>		min	6.90 .272	9.60 .378	12.70 .500	14.80 .583	17.90 .705	19.90 .783	23.10 .909	26.20 1.031
	Max	7.00 .276	9.70 .382	12.80 .504	14.90 .587	18.00 .709	20.00 .787	23.20 .913	26.30 1.035	28.90 1.138
<b>D10</b>	Max	16.00 .630	18.90 .744	22.10 .870	25.30 .996	28.50 1.122	31.50 1.240	34.70 1.366	37.90 1.492	41.00 1.614
	<b>L9</b>	type 1	27.80 1.094	27.80 1.094	27.80 1.094	29.80 1.173	29.80 1.173	30.80 1.213	34.60 1.362	34.60 1.362
type 2		-	-	-	-	-	-	-	-	33.50 1.319
<b>L10</b>	Max	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134
	<b>L 11</b>	Max	52.22 2.056	52.22 2.056	52.22 2.056	54.22 2.135	54.22 2.135	55.22 2.174	59.02 2.324	59.02 2.324

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## Receptacle type 0



## Backshells



shell size		09	11	13	15	17	19	21	23	25
B1	Max	24.25 .955	26.60 1.047	29.00 1.142	31.35 1.234	33.75 1.329	36.90 1.453	40.10 1.579	43.25 1.703	46.50 1.831
	E1	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.93 1.375	38.10 1.500
D1		14.53 .572	17.78 .700	21.59 .850	24.77 .975	27.94 1.100	30.66 1.207	33.83 1.332	37.00 1.457	40.18 1.582
	J	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.73 .147	3.73 .147
L1	Max	16.05 .632	16.05 .632	16.05 .632	16.05 .632	16.05 .632	16.05 .632	15.29 .602	15.29 .602	15.29 .602
	L2	13.49 .531	13.49 .531	13.49 .531	13.49 .531	13.49 .531	13.49 .531	13.49 .531	13.49 .531	13.49 .531
L3	Max	2.48 .098	2.48 .098	2.48 .098	2.48 .098	2.48 .098	2.48 .098	3.24 .128	3.24 .128	3.24 .128
	D2	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
D3	Max	6.96 .274	10.46 .412	13.36 .526	16.53 .651	19.71 .776	22.40 .882	25.56 1.006	28.75 1.132	31.93 1.257
	L4	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445
L5	Max	18.83 .741	18.83 .741	18.83 .741	18.83 .741	18.83 .741	18.83 .741	18.83 .741	18.83 .741	18.83 .741
	D4	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
D5	min	1.40 .055	1.40 .055	2.40 .094	5.60 .220	5.60 .220	8.80 .346	11.90 .469	15.10 .594	15.10 .594
	Max	3.20 .126	4.80 .189	6.40 .252	9.50 .374	12.70 .500	15.90 .626	19.10 .752	22.20 .878	25.40 1.000
F	Max	21.03 .828	22.63 .891	25.81 1.016	28.98 1.141	30.56 1.203	37.31 1.469	37.31 1.469	42.06 1.656	44.45 1.750
	L6	22.22 .875	22.22 .875	22.22 .875	28.57 1.125	28.57 1.125	28.57 1.125	28.57 1.125	31.75 1.250	31.75 1.250
L7	Max	29.39 1.157	30.19 1.189	31.69 1.248	38.09 1.500	41.59 1.637	41.59 1.637	41.59 1.637	41.59 1.637	41.59 1.637
	D6	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
D7	min	3.20 .126	4.00 .157	4.80 .189	5.50 .217	6.40 .252	7.90 .311	9.50 .374	10.30 .406	14.30 .563
	Max	6.40 .252	9.50 .374	11.10 .437	14.30 .563	15.90 .626	19.10 .752	22.20 .878	23.80 .937	25.40 1.000
L8	Max	35.32 1.391	35.32 1.391	37.30 1.469	41.67 1.641	46.04 1.813	46.45 1.829	48.43 1.907	51.98 2.046	54.78 2.157
	L9	25.40 1.000	26.19 1.031	27.79 1.094	30.96 1.219	32.54 1.281	34.14 1.344	34.93 1.375	36.53 1.438	43.66 1.719
L10	Max	42.85 1.687	42.85 1.687	44.83 1.765	51.00 2.008	53.57 2.109	53.98 2.125	55.96 2.203	59.51 2.343	62.31 2.453
	D8	20.20 .795	23.20 .913	26.20 1.031	29.20 1.150	32.20 1.268	35.20 1.386	39.20 1.543	42.20 1.661	45.20 1.780
D9	min	6.90 .272	9.60 .378	12.70 .500	14.80 .583	17.90 .705	19.90 .783	23.10 .909	26.20 1.031	28.80 1.134
	Max	7.00 .276	9.70 .382	12.80 .504	14.90 .587	18.00 .709	20.00 .787	23.20 .913	26.30 1.035	28.90 1.138
D10	Max	16.00 .630	18.90 .744	22.10 .870	25.30 1.000	28.50 1.122	31.50 1.240	34.70 1.366	37.90 1.492	41.00 1.614
	L11	type 1	27.80 1.094	27.80 1.094	27.80 1.094	29.80 1.173	29.80 1.173	30.80 1.213	34.60 1.362	34.60 1.362
type 2		-	-	-	-	-	-	-	-	-
L12	Max	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134
	L13	34.39 1.354	34.39 1.354	34.39 1.354	36.39 1.433	36.39 1.433	37.39 1.472	41.19 1.622	41.19 1.622	41.19 1.622

# 8LT Series



## Receptacle type 3



## Backshells



shell size		09	11	13	15	17	19	21	23	25
B1	Max	24.25 .955	26.60 1.047	29.00 1.142	31.35 1.234	33.75 1.329	36.90 1.453	40.10 1.579	43.25 1.703	46.50 1.831
	E1	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.93 1.375	38.10 1.500
D1		14.53 .572	17.78 .700	21.59 .850	24.77 .975	27.94 1.100	30.66 1.207	33.83 1.332	37.00 1.457	40.18 1.582
	J	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.73 .147	3.73 .147
L1	Max	20.83 .820	20.83 .820	20.83 .820	20.83 .820	20.83 .820	20.83 .820	20.08 .791	20.08 .791	20.08 .791
	L2	10.50 .413	10.50 .413	10.50 .413	10.50 .413	10.50 .413	10.50 .413	11.25 .443	11.25 .443	11.25 .443
L3	Max	2.48 .098	2.48 .098	2.48 .098	2.48 .098	2.48 .098	2.48 .098	3.24 .128	3.24 .128	3.24 .128
	D2	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
D3	Max	6.96 .274	10.46 .412	13.36 .526	16.53 .651	19.71 .776	22.40 .882	25.56 1.006	28.75 1.132	31.93 1.257
	L4	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445
L5	Max	15.85 .624	15.85 .624	15.85 .624	15.85 .624	15.85 .624	15.85 .624	16.60 .654	16.60 .654	16.60 .654
	D4	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
D5	min	1.40 .055	1.40 .055	2.40 .094	5.60 .220	5.60 .220	8.80 .346	11.90 .469	15.10 .594	15.10 .594
	Max	3.20 .126	4.80 .189	6.40 .252	9.50 .374	12.70 .500	15.90 .626	19.10 .752	22.20 .878	25.40 1.000
F	Max	21.03 .828	22.63 .891	25.81 1.016	28.98 1.141	30.56 1.203	37.31 1.469	37.31 1.469	42.06 1.656	44.45 1.750
	L6	22.22 .875	22.22 .875	22.22 .875	28.57 1.125	28.57 1.125	28.57 1.125	28.57 1.125	31.75 1.250	31.75 1.250
L7	Max	26.40 1.039	27.20 1.071	28.70 1.130	35.10 1.382	38.60 1.520	38.60 1.520	39.40 1.551	39.40 1.551	39.40 1.551
	D6	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
D7	min	3.20 .126	4.00 .157	4.80 .189	5.50 .217	6.40 .252	7.90 .311	9.50 .374	10.30 .406	14.30 .563
	Max	6.40 .252	9.50 .374	11.10 .437	14.30 .563	15.90 .626	19.10 .752	22.20 .878	23.80 1.000	25.40 1.000
L8	Max	35.32 1.391	35.32 1.391	37.30 1.469	41.67 1.641	46.04 1.813	46.45 1.829	48.43 1.907	51.98 2.046	54.78 2.157
	L9	25.40 1.000	26.19 1.031	27.79 1.094	30.96 1.219	32.54 1.281	34.14 1.344	34.93 1.375	36.53 1.438	43.66 1.719
L10	Max	39.90 1.571	39.90 1.571	41.90 1.650	48.10 1.894	50.60 1.992	51.00 2.008	53.80 2.118	57.30 2.256	60.10 2.366
	D8	20.20 .795	23.20 .913	26.20 1.031	29.20 1.150	32.20 1.268	35.20 1.386	39.20 1.543	42.20 1.661	45.20 1.780
D9	min	6.90 .272	9.60 .378	12.70 .500	14.80 .583	17.90 .705	19.90 .783	23.10 .909	26.20 1.031	28.80 1.134
	Max	7.00 .276	9.70 .382	12.80 .504	14.90 .587	18.00 .709	20.00 .787	23.20 .913	26.30 1.035	28.90 1.138
D10	Max	16.00 .630	18.90 .744	22.10 .870	25.30 .996	28.50 1.122	31.50 1.240	34.70 1.366	37.90 1.492	41.00 1.614
	L11	type 1	27.80 1.094	27.80 1.094	27.80 1.094	29.80 1.173	29.80 1.173	30.80 1.213	34.60 1.362	34.60 1.362
type 2		-	-	-	-	-	-	-	-	-
L12	Max	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134
	L13	31.40 1.236	31.40 1.236	31.40 1.236	33.40 1.315	33.40 1.315	34.40 1.354	39.00 1.535	39.00 1.535	39.00 1.535

# 8LT Series



## Receptacle type 7



## Backshells



shell size		09	11	13	15	17	19	21	23	25
<b>B1</b>	Max	27.35 .1077	32.10 .1264	35.31 .1390	38.49 .1515	41.63 .1639	46.37 .1826	49.58 .1952	52.76 .2077	55.93 .2202
		22.35 .880	25.55 1.006	30.30 1.193	33.45 1.317	36.65 1.443	39.80 1.567	43.00 1.693	46.15 1.817	50.95 2.006
<b>D1</b>		14.53 .572	17.78 .700	21.59 .850	24.77 .975	27.94 1.100	30.66 1.207	33.83 1.332	37.00 1.457	40.18 1.582
	Max	30.54 1.202	35.23 1.387	38.40 1.512	41.64 1.639	44.75 1.762	49.53 1.950	52.67 2.074	55.94 2.202	59.02 2.324
<b>L1</b>	Max	23.36 .920	23.36 .920	23.36 .920	23.36 .920	23.36 .920	23.36 .920	23.36 .920	23.36 .920	23.36 .920
	Max	8.32 .328	8.32 .328	8.32 .328	8.32 .328	8.32 .328	8.32 .328	8.32 .328	8.32 .328	8.32 .328
<b>L3</b>	Max	3.00 .118	3.00 .118	3.00 .118	3.00 .118	3.00 .118	3.79 .149	3.79 .149	3.79 .149	3.79 .149
	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
<b>D4</b>	Max	6.96 .274	10.46 .412	13.36 .526	16.53 .651	19.71 .776	22.40 .882	25.56 1.006	28.75 1.132	31.93 1.257
	Max	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445
<b>L5</b>	Max	13.66 .538	13.66 .538	13.66 .538	13.66 .538	13.66 .538	13.66 .538	13.66 .538	13.66 .538	13.66 .538
	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
<b>D6</b>	min	1.40 .055	1.40 .055	2.40 .094	5.60 .220	5.60 .220	8.80 .346	11.90 .469	15.10 .594	15.10 .594
	Max	3.20 .126	4.80 .189	6.40 .252	9.50 .374	12.70 .500	15.90 .626	19.10 .752	22.20 .878	25.40 1.000
<b>F</b>	Max	21.03 .828	22.63 .891	25.81 1.016	28.98 1.141	30.56 1.203	37.31 1.469	37.31 1.469	42.06 1.656	44.45 1.750
	Max	22.22 .875	22.22 .875	22.22 .875	28.57 1.125	28.57 1.125	28.57 1.125	28.57 1.125	31.75 1.250	31.75 1.250
<b>L7</b>	Max	24.22 .954	25.02 .985	26.52 1.044	32.92 1.296	36.42 1.434	36.42 1.434	36.42 1.434	36.42 1.434	36.42 1.434
	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
<b>D8</b>	min	3.20 .126	4.00 .157	4.80 .189	5.50 .217	6.40 .252	7.90 .311	9.50 .374	10.30 .406	14.30 .563
	Max	6.40 .252	9.50 .374	11.10 .437	14.30 .563	15.90 .626	19.10 .752	22.20 .878	23.80 .937	25.40 1.000
<b>L8</b>	Max	35.32 1.391	35.32 1.391	37.30 1.469	41.67 1.641	46.04 1.813	46.45 1.829	48.43 1.907	51.98 2.046	54.78 2.157
	Max	25.40 1.000	26.19 1.031	27.79 1.094	30.96 1.219	32.54 1.281	34.14 1.344	34.93 1.375	36.53 1.438	43.66 1.719
<b>L10</b>	Max	37.68 1.483	37.68 1.483	39.66 1.561	45.83 1.804	48.40 1.906	48.81 1.922	50.79 2.000	54.34 2.139	57.14 2.250
	Max	20.20 .795	23.20 .913	26.20 1.031	29.20 1.150	32.20 1.268	35.20 1.386	39.20 1.543	42.20 1.661	45.20 1.780
<b>D10</b>	min	6.90 .272	9.60 .378	12.70 .500	14.80 .583	17.90 .705	19.90 .783	23.10 .909	26.20 1.031	28.80 1.134
	Max	7.00 .276	9.70 .382	12.80 .504	14.90 .587	18.00 .709	20.00 .787	23.20 .913	26.30 1.035	28.90 1.138
<b>D11</b>	Max	16.00 .630	18.90 .744	22.10 .870	25.30 .996	28.50 1.122	31.50 1.240	34.70 1.366	37.90 1.492	41.00 1.614
	type 1	-	-	-	-	-	-	-	-	-
<b>L11</b>	type 2	26.70 1.051	26.70 1.051	26.70 1.051	28.70 1.130	28.70 1.130	29.70 1.169	33.50 1.319	33.50 1.319	33.50 1.319
	Max	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134
<b>L13</b>	Max	29.22 1.150	29.22 1.150	29.22 1.150	31.22 1.229	31.22 1.229	32.22 1.269	36.02 1.418	36.02 1.418	36.02 1.418



# 8LT Series



## Cable connecting receptacle type 1



## Backshells



shell size		09	11	13	15	17	19	21	23	25
B1	Max	18.92 .745	22.22 .875	25.62 1.009	27.82 1.095	31.35 1.234	34.62 1.363	38.02 1.497	42.02 1.654	46.50 1.831
	E1	22.35 .880	25.65 1.010	29.05 1.144	31.25 1.230	34.65 1.364	38.05 1.498	41.45 1.632	45.45 1.789	49.95 1.967
D1		14.53 .572	17.78 .700	21.59 .850	24.77 .975	27.94 1.100	30.66 1.207	33.83 1.332	37.00 1.457	40.18 1.582
	L1	Max	16.05 .632	16.05 .632	16.05 .632	16.05 .632	16.05 .632	16.05 .632	15.29 .602	15.29 .602
L2	Max	13.45 .530	13.45 .530	13.45 .530	13.45 .530	13.45 .530	13.45 .530	13.45 .530	13.45 .530	13.45 .530
	L3	Max	2.48 .098	2.48 .098	2.48 .098	2.48 .098	2.48 .098	2.48 .098	3.24 1.28	3.24 1.28
D2	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
	D3	Max	6.96 .274	10.46 .412	13.36 .526	16.53 .651	19.71 .776	22.40 .882	25.56 1.006	28.75 1.132
L4	Max	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445
	L5	Max	37.36 1.471	37.36 1.471	37.36 1.471	37.36 1.471	37.36 1.471	37.36 1.471	37.36 1.471	37.36 1.471
D4	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
	D5	min	1.40 .055	1.40 .055	2.40 .094	5.60 .220	5.60 .220	8.80 .346	11.90 .469	15.10 .594
Max		3.20 .126	4.80 .189	6.40 .252	9.50 .374	12.70 .500	15.90 .626	19.10 .752	22.20 .874	25.40 1.000
F	Max	21.03 .828	22.63 .891	25.81 1.016	28.98 1.141	30.56 1.203	37.31 1.469	37.31 1.469	42.06 1.656	44.45 1.750
	L6	Max	22.22 .875	22.22 .875	22.22 .875	28.57 1.125	28.57 1.125	28.57 1.125	28.57 1.125	31.75 1.250
L7	Max	47.98 1.889	48.72 1.918	50.22 1.977	56.62 2.229	60.12 2.367	60.12 2.367	60.12 2.367	60.12 2.367	60.12 2.367
	D6	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468
D7		min	3.20 .126	4.00 .157	4.80 .189	5.50 .217	6.40 .252	7.90 .311	9.50 .374	10.30 .406
	Max	6.40 .252	9.50 .374	11.10 .437	14.30 .563	15.90 .626	19.10 .752	22.20 .874	23.80 .937	25.40 1.000
L8	Max	35.32 1.391	35.32 1.391	37.30 1.469	41.67 1.641	46.04 1.813	46.45 1.829	48.43 1.907	51.98 2.046	54.78 2.157
	L9	Max	25.40 1.000	26.19 1.031	27.79 1.094	30.96 1.219	32.54 1.281	34.14 1.344	34.93 1.375	36.53 1.438
L10	Max	61.38 2.417	61.38 2.417	63.36 2.494	69.53 2.737	72.10 2.839	72.51 2.855	74.49 2.933	78.04 3.072	80.84 3.183
	D8	Max	20.20 .795	23.20 .913	26.20 1.031	29.20 1.150	32.20 1.268	35.20 1.386	39.20 1.543	42.20 1.661
D9		min	6.90 .272	9.60 .378	12.70 .500	14.80 .583	17.90 .705	19.90 .783	23.10 .909	26.20 1.031
	Max	7.00 .276	9.70 .382	12.80 .504	14.90 .587	18.00 .709	20.00 .787	23.20 .913	26.30 1.035	28.90 1.138
D10	Max	16.00 .630	18.90 .744	22.10 .870	25.30 .996	28.50 1.122	31.50 1.240	34.70 1.366	37.90 1.492	41.00 1.614
	L11	type 1	27.80 1.094	27.80 1.094	27.80 1.094	29.80 1.173	29.80 1.173	30.80 1.213	34.60 1.362	34.60 1.362
type 2		-	-	-	-	-	-	-	-	-
L12	Max	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134	3.40 .134
	L13	Max	52.92 2.083	52.92 2.083	52.92 2.083	54.92 2.162	54.92 2.162	55.92 2.202	59.72 2.351	59.72 2.351

# 8LT Series



## Receptacle with straight spill contacts



shell size			09	11	13	15	17	19	21	23	25		
L2	# 22D 8LT	CM	Max	10.06	10.06	10.06	10.06	10.06	10.06	10.06	10.06	10.06	
			min	.396	.396	.396	.396	.396	.396	.396	.396	.396	.396
		CF	Max	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07	9.07
			min	.357	.357	.357	.357	.357	.357	.357	.357	.357	.357
		# 22D HE308	CM	Max	10.06	10.06	10.06	10.06	10.06	10.06	10.06	10.06	10.06
				min	.396	.396	.396	.396	.396	.396	.396	.396	.396
	CF		Max	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74
			min	.344	.344	.344	.344	.344	.344	.344	.344	.344	.344
	#20 - #16 8LT HE308		CM and CF	Max	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23	10.23
				min	.403	.403	.403	.403	.403	.403	.403	.403	.403
	ØA	#22D	8LT	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
			HE308	.028	.028	.028	.028	.028	.028	.028	.028	.028	.028
#20		0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50			
#16		.020	.020	.020	.020	.020	.020	.020	.020	.020	.020		
#20		CM and CF	Max	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
			min	.028	.028	.028	.028	.028	.028	.028	.028	.028	.028
L3	PC #22D	8LT	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15		
		HE308	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	
	PC#20	CM and CF	Max	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	
			min	.157	.157	.157	.157	.157	.157	.157	.157	.157	
	PC#16	CM and CF	Max	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
			min	.197	.197	.197	.197	.197	.197	.197	.197	.197	.197
PL#22D	CM and CF	Max	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00		
		min	.197	.197	.197	.197	.197	.197	.197	.197	.197	.197	
L4	#22D 8LT	CM	Max	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	
			min	.335	.335	.335	.335	.335	.335	.335	.335	.335	
		CF	Max	15.08	15.08	15.08	15.08	15.08	15.08	15.08	15.08	15.08	
			min	.594	.594	.594	.594	.594	.594	.594	.594	.594	
		#20 - #16 8LT	CM and CF	Max	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
				min	.548	.548	.548	.548	.548	.548	.548	.548	.548
	#20 - #16 8LT	CM	Max	15.08	15.08	15.08	15.08	15.08	15.08	15.08	15.08	15.08	
			min	.594	.594	.594	.594	.594	.594	.594	.594	.594	
		CF	Max	13.58	13.58	13.58	13.58	13.58	13.58	13.58	13.58	13.58	
			min	.535	.535	.535	.535	.535	.535	.535	.535	.535	
		#20 - #16 8LT	CM and CF	Max	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
				min	.600	.600	.600	.600	.600	.600	.600	.600	.600
L5	#22D 8LT	CM	Max	12.47	12.47	12.47	12.47	12.47	12.47	13.22	13.22	13.22	
			min	.491	.491	.491	.491	.491	.491	.520	.520	.520	
		CF	Max	11.60	11.60	11.60	11.60	11.60	11.60	12.35	12.35	12.35	
			min	.457	.457	.457	.457	.457	.457	.486	.486	.486	
		#20 - #16 8LT	CM and CF	Max	12.47	12.47	12.47	12.47	12.47	12.47	13.22	13.22	13.22
				min	.491	.491	.491	.491	.491	.491	.520	.520	.520
	#20 - #16 8LT	CM and CF	Max	11.27	11.27	11.27	11.27	11.27	11.27	12.02	12.02	12.02	
			min	.444	.444	.444	.444	.444	.444	.473	.473	.473	
	#20 - #16 8LT	CM and CF	Max	12.64	12.64	12.64	12.64	12.64	12.64	13.39	13.39	13.39	
			min	.498	.498	.498	.498	.498	.498	.527	.527	.527	
	#20 - #16 8LT	CM and CF	Max	11.77	11.77	11.77	11.77	11.77	11.77	12.52	12.52	12.52	
			min	.463	.463	.463	.463	.463	.463	.493	.493	.493	

CM : male contact

CF : female contact

PL : long spill

PC : short spill

# 8LT Series



## Receptacle with wire wrap contacts

### Receptacle type 7



contact size	contact type	A Max	B Max
22D	W 3 wraps	10.06 0.396	16.00 0.63
20	T2 wraps	10.06 0.396	16.00 0.63

### Receptacle type 2



shell size	09	11	13	15	17	19	21	23	25
L1 Max	20.83 .820	20.83 .820	20.83 .820	20.83 .820	20.83 .820	20.83 .820	20.08 .791	20.08 .791	20.08 .791
L2 Max	5.55 .219	5.55 .219	5.55 .219	5.55 .219	5.55 .219	5.55 .219	6.30 .248	6.30 .248	6.30 .248
L3 Max	2.48 .098	2.48 .098	2.48 .098	2.48 .098	2.48 .098	2.48 .098	3.24 .128	3.24 .128	3.24 .128
D1	14.53 .572	17.78 .700	21.59 .850	24.77 .975	27.94 1.100	30.66 1.207	33.83 1.332	37.00 1.457	40.18 1.582
D2 Max	9.95 .392	12.90 .508	16.10 .634	19.05 .750	22.20 .874	25.20 .992	28.35 1.116	31.50 1.240	34.70 1.366
B1 Max	24.25 .955	26.60 1.047	29.00 1.142	31.35 1.234	33.75 1.329	36.90 1.453	40.10 1.579	43.25 1.703	46.50 1.831
E1	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.93 1.375	38.10 1.500

## Panel cut-out

### square flange receptacle



### jam nut receptacle



shell size	09	11	13	15	17	19	21	23	25	
d1 min	type 0	15.70 .618	18.70 .736	21.80 .858	25.00 .984	28.30 1.114	31.00 1.220	34.20 1.346	37.30 1.469	40.50 1.594
	type 3	16.66 .656	20.22 .796	23.42 .922	26.59 1.047	30.96 1.219	32.94 1.297	36.12 1.422	39.29 1.547	42.47 1.672
d2	17.70 .697	20.88 .822	25.58 1.007	28.80 1.134	31.98 1.259	35.15 1.384	38.28 1.507	41.50 1.634	44.68 1.759	
J	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.91 .154	3.91 .154	
e	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.92 1.375	38.10 1.500	
P	16.99 .669	19.53 .769	24.26 .955	27.53 1.084	30.68 1.208	33.86 1.333	37.06 1.459	40.01 1.575	43.41 1.709	

# 8LT Series



## Accessories

### Protective caps for receptacles



type 01



type 02



type 04



type 06

### Protective caps for plugs



type 01



type 03



type 05



type 07

shell size	A Max	B Max	C Max	D Max	d1 min	d2 min	L1	L2	L3	L4	L5	L6	L7
09	21.20 .835	28.00 1.102	20.50 .807	29.50 1.161	3.20 .126	17.80 .701	76.00 2.992	76.00 2.992	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299
11	24.40 .961	28.00 1.102	23.70 .933	29.50 1.161	3.20 .126	21.30 .839	76.00 2.992	76.00 2.992	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299
13	28.40 1.118	28.00 1.102	26.90 1.059	29.50 1.161	3.20 .126	25.70 1.012	89.00 3.504	89.00 3.504	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299
15	31.60 1.244	28.00 1.102	30.10 1.185	29.50 1.161	3.20 .126	29.00 1.142	89.00 3.504	89.00 3.504	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299
17	35.50 1.398	28.00 1.102	33.20 1.307	29.50 1.161	3.20 .126	32.00 1.260	89.00 3.504	89.00 3.504	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299
19	37.90 1.492	28.00 1.102	36.40 1.433	29.50 1.161	3.20 .126	35.30 1.390	89.00 3.504	89.00 3.504	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299
21	41.10 1.618	28.00 1.102	39.60 1.559	29.50 1.161	3.20 .126	38.10 1.500	102.00 4.016	102.00 4.016	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299
23	44.30 1.744	28.00 1.102	42.80 1.685	29.50 1.161	3.20 .126	41.70 1.642	102.00 4.016	102.00 4.016	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299
25	47.40 1.866	28.00 1.102	45.90 1.807	29.50 1.161	3.20 .126	44.70 1.760	102.00 4.016	102.00 4.016	105.00 4.134	105.00 4.134	200.00 7.874	160.00 6.299	160.00 6.299

# 8LT Series



## Protective caps

<b>basic series</b>			<b>8LT</b>	<b>E</b>	<b>01</b>	<b>G</b>	<b>13</b>
<b>cap type</b>	<b>E</b> - cap for receptacle			<b>F</b> - cap for plug			
<b>fixing type</b>	<b>cap for receptacle</b>		<b>cap for plug</b>				
	<b>01</b> - plastic sleeved metal cord with eyelet		<b>01</b> - plastic sleeved metal cord with eyelet				
	<b>02</b> - plastic sleeved metal cord with ring		<b>03</b> - nylon cord without fastener				
	<b>04</b> - nylon cord with eyelet		<b>05</b> - nylon cord with eyelet				
	<b>06</b> - nylon cord with ring		<b>07</b> - nylon cord with strap				
<b>plating</b>	<b>B</b> - olive green cadmium (MIL-C 38999)						
	<b>F</b> - nickel						
<b>shell size</b>	<b>09-11-13-15-17-19-21-23-25</b>						

## Dummy receptacles

shell size	part numbers	L1 Max	L3 Max	D1 Max	B1 Max	E1	J
09	8LTO-09GUR	16.05 .632	2.48 .098	14.53 .572	24.25 .955	18.26 .719	3.25 .128
11	8LTO-11GUR	16.05 .632	2.48 .098	17.78 .700	26.60 1.047	20.62 .812	3.25 .128
13	8LTO-13GUR	16.05 .632	2.48 .098	21.59 .850	29.00 1.142	23.01 .906	3.25 .128
15	8LTO-15GUR	16.05 .632	2.48 .098	24.77 .975	31.35 1.234	24.61 .969	3.25 .128
17	8LTO-17GUR	16.05 .632	2.48 .098	27.94 1.100	33.75 1.329	26.97 1.062	3.25 .128
19	8LTO-19GUR	16.05 .632	2.48 .098	30.66 1.207	39.90 1.453	29.36 1.156	3.25 .128
21	8LTO-21GUR	15.29 .602	3.24 .128	33.83 1.332	40.10 1.579	31.75 1.250	3.25 .128
23	8LTO-23GUR	15.29 .602	3.24 .128	37.00 1.457	43.25 1.703	34.93 1.375	3.73 .147
25	8LTO-25GUR	15.29 .602	3.24 .128	40.18 1.582	46.50 1.831	38.10 1.500	3.73 .147



## Plastic protective caps

shell size	part numbers	
	caps for receptacles	caps for plugs
09	8500-5594	8500-5595
11	8500-5595	8500-5588
13	8500-5598	70205
15	8500-5599	70206
17	8500-5600	70207
19	8500-5601	8500-5589
21	8500-5602	8500-5590
23	8500-5592	8500-5591
25	8500-5593	70602



## Gaskets

shell size	part numbers	
	gasket for receptacles type 0 (ordered separately)	O ring for receptacle type7
09	8599-5541	MS9068-019
11	8599-5542	MS9068-022
13	8599-5543	MS9068-024
15	8599-5544	MS9068-026
17	8599-5545	MS9068-028
19	8599-5546	MS9068-128
21	8599-5547	MS9068-130
23	8599-5548	MS9068-132
25	8599-5549	MS9068-134

# 8LT Series



## Rack and panel connectors

Mated connector shell size 23



Layout 01



1 Ø12

SN2550

basic series  
HE 308 basic series

SN 2550  
HE 308

-26 T 23 -01 P N 7 M •

**shell type** 26 - floating plug for rack, for crimp female contacts, with possibility to mount rear accessory  
27 - receptacle for rack, for male contacts with possibility to mount rear accessory

**class** T - sealed

**shell size** - please consult us

**contact layout** - please consult us

**contact type** P - male contact S - female contact

**polarization** N - normal

**plating** 7 - olive green cadmium

**contractual specification** M - DAT quality assurance

**specification** - - connector supplied with contact (without specification)  
L - connector supplied without contact

## Through-bulkhead receptacle - pin/socket



shell size	A Max	B Max	C Max	D	E Max	F Max
09	25.40 1.000	2.50 .098	14.56 .573	18.26 .719	24.34 .958	3.50 .138
11	25.40 1.000	2.50 .098	17.81 .701	20.62 .812	26.70 1.051	3.50 .138
13	25.40 1.000	2.50 .098	21.62 .851	23.01 .906	29.09 1.145	3.50 .138
15	25.40 1.000	2.50 .098	24.80 .976	24.61 .969	31.47 1.239	3.50 .138
17	25.40 1.000	2.50 .098	27.97 1.101	26.97 1.062	33.83 1.332	3.50 .138
19	25.40 1.000	2.50 .098	30.69 1.208	29.36 1.156	37.04 1.458	3.50 .138
21	25.10 .988	3.25 .128	33.86 1.333	31.75 1.250	40.18 1.582	3.98 .157
23	25.10 .988	3.25 .128	37.04 1.458	34.93 1.375	43.39 1.708	3.98 .157
25	25.10 .988	3.25 .128	40.21 1.583	38.10 1.500	46.53 1.832	3.98 .157

basic series SN1568-08 T •••• P N SN 7

through bulkhead receptacle

class T - sealed

shell size 09-11-13-15-17-19-21-23-25

contact layout - please consult us

male contact/polarization

female contact/polarization

plating 7 - olive green cadmium

# 8T Series



## Applications

Compact profile and high density connectors for all military and aeronautical purposes

## Standards

MIL-C 38999 Series II - QPL approved  
 NFC 93422 HE 309  
 VG 96912 series II  
 PAN 6433-1  
 BS 9522 N 003



## Description

- High density connectors from 1 to 128 contacts
- Sizes 22D, 20, 16, 12
- A compact profile
- Bayonet locking system
- An excellent shock vibration and fluid resistance

## Characteristics

### Mechanical

- Shell : aluminum alloy
- Plating :
  - olive green cadmium (G and B)
  - nickel (F) - hard anodized (C)
- Insulator : thermoplastic
- Grommet and seal : silicone elastomer
- Contact : copper alloy
- Plating : gold over nickel
- Endurance :
  - 500 mating/unmating operations
- Shock : 300 g during 3 ms
- Vibration :
  - random 100 to 1000 Hz - 1 g<sup>2</sup>/Hz
- Contact retention (mini force in N) :
  - size 22D : 44 N    size 20 : 67 N
  - size 16 : 110 N    size 12 : 110 N

### Electrical

- Test voltage (Vrms)

Service	sea level	at 21000 m
M	1300	800
I	1800	1000
II	2300	1000

- Contact resistance :
  - size 22 D : 14.6 mΩ    size 16 : 3.8 mΩ
  - size 20 : 7.3 mΩ
- Insulation resistance :
  - ≥ 5000 MΩ (at 500 Vdc)
- Contact rating :
  - size 22 D : 5 A    size 16 : 13 A
  - size 20 : 7.5 A    size 12 : 23 A
- Shell continuity :
  - olive green plating : 2.5 mΩ
  - nickel plating : 1 mΩ

### Climatic

- Temperature range :
  - cadmium plating (G)    -65°C +175°C
  - (B)    -65°C +175°C
  - nickel plating (F)    -65°C +200°C
  - hard anodized (C)    -65°C +200°C
- Sealing : mated connectors
  - differential pressure 1 bar ; leakage ≤ 8 cm<sup>3</sup>/hr
- Salt spray to :
  - MIL-STD 1344 method 1001
  - 500 hours (plating B)
  - 48 hours (plating F-C)
  - NFC 93422
  - 48 hours (plating G-F-C)
- Damp heat :
  - MIL-C 38999 : 10 cycles (24 hours)
  - NFC 93422 : 56 days

### Resistance to fluids

To MIL-L 38999 :  
 MIL-L 7808, MIL-L 23699, MIL-H 5606,  
 MIL-A 8243, MIL-L 25769, MIL-G 3056,  
 MIL-T 5624 (JP5) ; hydraulic fluids ; solvents  
 To NFC 93422 :  
 F 46, F 54, 0/180, H 515, H 542, XH 45

## Ordering information

### FCI Souriau - Part numbers

<b>basic series</b>			<b>8 T</b>	<b>3</b>	<b>-</b>	<b>14</b>	<b>G</b>	<b>35</b>	<b>P</b>	<b>N</b>
<b>shell type</b>	<b>2</b>	- square flange receptacle not accepting backshells								
	<b>3</b>	- square flange receptacle (rear mounting)								
	<b>7</b>	- jam nut receptacle								
	<b>1</b>	- cable connecting receptacle								
	<b>6</b>	- plug								
<b>designator</b>										
		- connectors with standard crimp contacts								
	<b>L</b>	- receptacle with long spill (male and female # 22D)								
	<b>C</b>	- receptacle with short spill (male # 22D - # 20 - # 16)								
<b>shell size</b>	<b>08-10-12-14-16-18-20-22-24</b>									
<b>plating</b>	<b>G</b>	- olive green cadmium (HE 309)								
	<b>F</b>	- nickel								
	<b>B</b>	- olive green cadmium (MIL-C 38999)								
	<b>C</b>	- hard anodized								
<b>contact layout</b>	- see table p 120									
<b>contact type</b>	<b>P</b>	- male	<b>A</b>	- male connector without contact or with special contacts						
	<b>S</b>	- female	<b>B</b>	- female connector without contact or with special contacts						
<b>polarization</b>	<b>N-A-B-C-D</b>		- see table p 100							

Note : connectors supplied with standard contacts

# 8T Series



## MIL-C 38999 Series II

<b>basic series</b>	<b>MS</b>	<b>27497</b>	<b>T</b>	<b>14</b>	<b>B</b>	<b>35</b>	<b>P</b>	<b>•</b>
<b>shell type</b>	<b>27508</b> - square flange receptacle without thread for back fitting <b>27497</b> - square flange receptacle (rear mounting) <b>27474</b> - jam nut receptacle <b>27473</b> - plug							
<b>class</b>	<b>T</b> - with thread for backshell, supplied without backshell <b>E</b> - without thread for backshell only for MS 27508							
<b>shell size</b>	<b>08-10-12-14-16-18-20-22-24</b>							
<b>plating</b>	<b>B</b> - olive green cadmium		<b>F</b> - nickel		<b>C</b> - hard anodized			
<b>contact layout</b>	- see table p 120							
<b>contact type</b>	<b>P</b> - male		<b>A</b> - male connector supplied without contact or with special contacts					
	<b>S</b> - female		<b>B</b> - female connector supplied without contact or with special contacts					
<b>polarization</b>	<b>N</b> - Normal (not included in part number) <b>A-B-C-D</b> - see table p 100							

## backshells

<b>basic series</b>										<b>8LST</b>	<b>104</b>	<b>G</b>	<b>01</b>
<b>shell size</b>	08	10	12	14	16	18	20	22	24				
<b>index number</b>	101	102	103	104	105	106	107	108	109				
<b>plating</b>	<b>B</b> - olive green cadmium (MIL. C 38999)												
	<b>F</b> - nickel												
<b>backshell type</b>	<b>01</b> - backnut					<b>03</b> - elbow cable clamp							
	<b>02</b> - straight cable clamp												

## Cross reference list - part numbers cross reference list FCI Souriau and MIL-C 38999 NFC 93422 - PAN 6433-1

	FCI Souriau	MIL-C 38999 Series II	NFC 93422 / HE 309	PAN 6433-1
Square flange receptacle without thread for back fitting	8T2 - •• G •• P □		HE 309-05T •• - •• P □ 7	PAN 6433-1E •• - •• P □
	8T2 - •• G •• A □		HE 309-05T •• - •• P □ 7L	
	8T2 - •• G •• S □		HE 309-05T •• - •• S □ 7	PAN 6433-1E •• - •• S □
	8T2 - •• G •• B □		HE 309-05T •• - •• S □ 7L	
	8T2 - •• B •• P □	MS27508E •• B •• P □		
	8T2 - •• B •• A □	MS27508E •• B •• A □		
	8T2 - •• B •• S □	MS27508E •• B •• S □		
	8T2 - •• B •• B □	MS27508E •• B •• B □		
	8T2 - •• F •• P □	MS27508E •• F •• P □	HE 309-05T •• - •• P □ 6	
	8T2 - •• F •• A □	MS27508E •• F •• A □	HE 309-05T •• - •• P □ 6L	
	8T2 - •• F •• S □	MS27508E •• F •• S □	HE 309-05T •• - •• S □ 6	
	8T2 - •• F •• B □	MS27508E •• F •• B □	HE 309-05T •• - •• S □ 6L	
	8T2 - •• C •• P □	MS27508E •• C •• P □	HE 309-05T •• - •• P □ 8	
	8T2 - •• C •• A □	MS27508E •• C •• A □	HE 309-05T •• - •• P □ 8L	
	8T2 - •• C •• S □	MS27508E •• C •• S □	HE 309-05T •• - •• S □ 8	
	8T2 - •• C •• B □	MS27508E •• C •• B □	HE 309-05T •• - •• S □ 8L	
Square flange receptacle with thread for back fitting	8T3 - •• G •• P □		HE 309-03T •• - •• P □ 7	PAN 6433-1B •• - •• P □
	8T3 - •• G •• A □		HE 309-03T •• - •• P □ 7L	
	8T3 - •• G •• S □		HE 309-03T •• - •• S □ 7	PAN 6433-1B •• - •• S □
	8T3 - •• G •• B □		HE 309-03T •• - •• S □ 7L	
	8T3 - •• B •• P □	MS27497T •• B •• P □		
	8T3 - •• B •• A □	MS27497T •• B •• A □		
	8T3 - •• B •• S □	MS27497T •• B •• S □		
	8T3 - •• B •• B □	MS27497T •• B •• B □		
	8T3 - •• F •• P □	MS27497T •• F •• P □	HE 309-03T •• - •• P □ 6	
	8T3 - •• F •• A □	MS27497T •• F •• A □	HE 309-03T •• - •• P □ 6L	
	8T3 - •• F •• S □	MS27497T •• F •• S □	HE 309-03T •• - •• S □ 6	
	8T3 - •• F •• B □	MS27497T •• F •• B □	HE 309-03T •• - •• S □ 6L	
	8T3 - •• C •• P □	MS27497T •• C •• P □	HE 309-03T •• - •• P □ 8	
	8T3 - •• C •• A □	MS27497T •• C •• A □	HE 309-03T •• - •• P □ 8L	
	8T3 - •• C •• S □	MS27497T •• C •• S □	HE 309-03T •• - •• S □ 8	
	8T3 - •• C •• B □	MS27497T •• C •• B □	HE 309-03T •• - •• S □ 8L	



# 8T Series



## Cross reference list - FCI Souriau part numbers and MIL-C 38999, NFC 93422 - PAN 6433-1 standard

	FCI Souriau	MIL-C 38999 Series II	NFC 93422 / HE 309	PAN 6433-1
Jam nut receptacle	8T7 - ●● G ●● P □ 8T7 - ●● G ●● A □ 8T7 - ●● G ●● S □ 8T7 - ●● G ●● B □ 8T7 - ●● B ●● P □ 8T7 - ●● B ●● A □ 8T7 - ●● B ●● S □ 8T7 - ●● B ●● B □ 8T7 - ●● F ●● P □ 8T7 - ●● F ●● A □ 8T7 - ●● F ●● S □ 8T7 - ●● F ●● B □ 8T7 - ●● C ●● P □ 8T7 - ●● C ●● A □ 8T7 - ●● C ●● S □ 8T7 - ●● C ●● B □	MS27474T ●● B ●● P □ MS27474T ●● B ●● A □ MS27474T ●● B ●● S □ MS27474T ●● B ●● B □ MS27474T ●● F ●● P □ MS27474T ●● F ●● A □ MS27474T ●● F ●● S □ MS27474T ●● F ●● B □ MS27474T ●● C ●● P □ MS27474T ●● C ●● A □ MS27474T ●● C ●● S □ MS27474T ●● C ●● B □	HE 309-07T ●● - ●● P □ 7 HE 309-07T ●● - ●● P □ 7L HE 309-07T ●● - ●● S □ 7 HE 309-07T ●● - ●● S □ 7L HE 309-07T ●● - ●● P □ 6 HE 309-07T ●● - ●● P □ 6L HE 309-07T ●● - ●● S □ 6 HE 309-07T ●● - ●● S □ 6L HE 309-07T ●● - ●● P □ 8 HE 309-07T ●● - ●● P □ 8L HE 309-07T ●● - ●● S □ 8 HE 309-07T ●● - ●● S □ 8L	PAN 6433-1A ●● - ●● P □ PAN 6433-1A ●● - ●● S □
Cable connecting receptacle	8T1 - ●● G ●● P □ 8T1 - ●● G ●● A □ 8T1 - ●● G ●● S □ 8T1 - ●● G ●● B □ 8T1 - ●● B ●● P □ 8T1 - ●● B ●● A □ 8T1 - ●● B ●● S □ 8T1 - ●● B ●● B □ 8T1 - ●● F ●● P □ 8T1 - ●● F ●● A □ 8T1 - ●● F ●● S □ 8T1 - ●● F ●● B □ 8T1 - ●● C ●● P □ 8T1 - ●● C ●● A □ 8T1 - ●● C ●● S □ 8T1 - ●● C ●● B □			
Plug without RFI shielding	8T6 - ●● G ●● P □ 8T6 - ●● G ●● A □ 8T6 - ●● G ●● S □ 8T6 - ●● G ●● B □ 8T6 - ●● B ●● P □ 8T6 - ●● B ●● A □ 8T6 - ●● B ●● S □ 8T6 - ●● B ●● B □ 8T6 - ●● F ●● P □ 8T6 - ●● F ●● A □ 8T6 - ●● F ●● S □ 8T6 - ●● F ●● B □ 8T6 - ●● C ●● P □ 8T6 - ●● C ●● A □ 8T6 - ●● C ●● S □ 8T6 - ●● C ●● B □	MS27473T ●● B ●● P □ MS27473T ●● B ●● A □ MS27473T ●● B ●● S □ MS27473T ●● B ●● B □ MS27473T ●● F ●● P □ MS27473T ●● F ●● A □ MS27473T ●● F ●● S □ MS27473T ●● F ●● B □ MS27473T ●● C ●● P □ MS27473T ●● C ●● A □ MS27473T ●● C ●● S □ MS27473T ●● C ●● B □	HE 309-06T ●● - ●● P □ 7 HE 309-06T ●● - ●● P □ 7L HE 309-06T ●● - ●● S □ 7 HE 309-06T ●● - ●● S □ 7L HE 309-06T ●● - ●● P □ 6 HE 309-06T ●● - ●● P □ 6L HE 309-06T ●● - ●● S □ 6 HE 309-06T ●● - ●● S □ 6L HE 309-06T ●● - ●● P □ 8 HE 309-06T ●● - ●● P □ 8L HE 309-06T ●● - ●● S □ 8 HE 309-06T ●● - ●● S □ 8L	PAN 6433-1F ●● - ●● P □ PAN 6433-1F ●● - ●● S □
Contacts - filler plugs - tools	8599-0902 8599-0903 8599-0904 8599-0905 8599-0910 8599-0911 8599-0912 8599-0913 8660-212 8522-389A 8522-390A 8599-0022 8522-20 8522-16	M39029/58-360 M39029/58-363 M39029/58-364 M39029/58-365 M39029/57-354 M39029/57-357 M39029/57-358 M39029/57-359 M27488-22 M27488-20 M27488-16 M81969/14-01 M81969/14-02 M81969/14-03		PAN 6433-1P PAN 6433-1S PAN 6433-1N
Backshells	8LST ●●● G01 8LST ●●● B01 8LST ●●● F01	M85049/27 ●● W M85049/27 ●● N	HE 309-17 ●● 7 HE 309-17 ●● 6	

# 8T Series



## Polarization

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



shell size	contacts layout	service			number of contacts				angle in degrees				
		M	I	II	# 22D Ø 0,76	# 20 Ø 1	# 16 Ø 1,6	# 12 Ø 2,4	N	A	B	C	D
08	35	X			6				100	82	-	-	118
10	35	X			13				100	86	72	128	114
12	35	X							100	80	68	132	120
14	35	X			37				100	79	66	134	121
	18		X			18			100	79	66	134	121
16	35	X			55				100	82	70	130	118
	08			X			8		100	82	70	130	118
	06		X					6	100	82	70	130	118
18	35	X			66				100	82	70	130	118
20	35	X			79				100	82	70	130	118
	41		X			41			100	82	70	130	118
	16			X			16		100	82	70	130	118
	11			X				11	100	82	70	130	118
22	35	X			100				100	85	74	126	115
24	35	X			128				100	85	74	126	115
	61		X			61			100	85	74	126	115
	29		X				29		100	85	74	126	115
	24		X				12	12	100	85	74	126	115

# 8T Series



## Dimensions

### backshells



### plug type 6



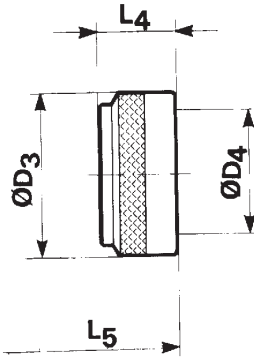
shell size	08	10	12	14	16	18	20	22	24	
D 1	Max .750	19.05 .859	21.82 1.031	26.19 1.156	29.36 1.281	32.54 1.406	35.71 1.531	38.89 1.641	41.68 1.766	44.86 1.984
L1	Max .916	23.27 .916	23.27 .916	23.27 .916	23.27 .916	23.27 .916	23.27 .916	23.27 .916	23.27 .916	25.00 1.069
D2	Max .617	15.67 .734	18.64 .858	21.79 .984	24.99 1.112	28.24 1.218	30.94 1.345	34.16 1.468	37.29 1.593	40.46 1.766
D3	Max .412	6.96 .526	10.46 .651	13.36 .776	16.53 .901	19.71 1.026	22.40 1.151	25.56 1.276	28.75 1.401	31.93 1.526
L2	Max .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445
L3	Max .991	25.16 1.069	25.16 1.069	25.16 1.069	25.16 1.069	25.16 1.069	25.16 1.069	25.16 1.069	25.16 1.069	27.14 1.212
D4	Max .617	15.67 .734	18.64 .858	21.79 .984	24.99 1.112	28.24 1.218	30.94 1.345	34.16 1.468	37.29 1.593	40.46 1.766
D5	min .055	1.40 .055	2.40 .094	5.60 .220	5.60 .220	8.80 .346	11.90 .469	15.10 .591	15.10 .591	15.10 .591
	Max .126	3.20 .189	4.80 .252	6.40 .374	9.50 .500	12.70 .626	15.90 .752	19.10 .874	22.20 1.000	25.40 1.126
F	Max .828	21.03 1.391	22.63 1.391	25.81 1.469	28.98 1.641	30.56 1.813	37.31 1.829	37.31 1.907	42.06 2.046	44.45 2.171
L4	Max .875	22.22 .875	22.22 .875	22.22 .875	28.57 1.125	28.57 1.125	28.57 1.125	28.57 1.125	31.75 1.250	31.75 1.250
L5	Max 1.624	41.26 1.624	41.26 1.624	41.26 1.624	47.16 1.857	47.16 1.857	47.16 1.857	47.16 1.857	50.76 1.998	50.76 1.998
D6	Max .617	15.67 .734	18.64 .858	21.79 .984	24.99 1.112	28.24 1.218	30.94 1.345	34.16 1.468	37.29 1.593	40.46 1.766
D7	min .126	3.20 .157	4.00 .189	4.80 .217	5.50 .217	6.40 .252	7.90 .311	9.50 .374	10.30 .406	14.30 .563
	Max .252	6.40 .374	9.50 .437	11.10 .563	14.30 .563	15.90 .626	19.10 .752	22.20 .874	23.80 1.000	25.40 1.126
L6	Max 1.391	35.32 1.391	35.32 1.391	37.30 1.469	41.67 1.641	46.04 1.813	46.45 1.829	48.43 1.907	51.98 2.046	54.78 2.171
L7	Max 1.000	25.40 1.000	26.19 1.031	27.79 1.094	30.96 1.219	32.54 1.281	34.14 1.344	34.93 1.375	34.53 1.359	43.66 1.719
L8	Max 1.922	48.82 1.922	48.82 1.922	50.80 2.000	55.17 2.172	59.54 2.344	59.95 2.360	61.93 2.438	65.48 2.578	70.26 2.766

# 8T Series

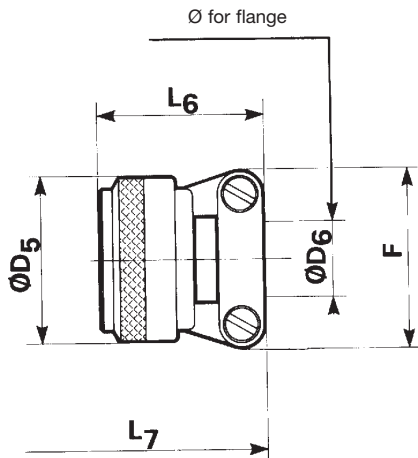


## backshells

backnut type 01



straight cable clamp type 02



elbow cable clamp type 03



## receptacle type 3



shell size		08	10	12	14	16	18	20	22	24
B1	Max	21.03 .828	24.23 .954	26.59 1.047	28.98 1.141	31.34 1.234	33.73 1.328	36.91 1.453	40.08 1.578	43.26 1.703
	E1	15.09 .594	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.93 1.375
D1	Max	12.04 .474	15.02 .591	19.08 .751	22.25 .876	25.43 1.001	28.61 1.126	31.78 1.251	34.95 1.376	38.13 1.501
	D2	Max	13.89 .547	17.07 .672	21.44 .844	24.61 .969	27.79 1.094	30.96 1.219	34.14 1.344	37.31 1.469
L1	Max	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447
	L2	Max	12.27 .483	12.27 .483	12.27 .483	12.27 .483	12.27 .483	12.27 .483	12.27 .483	12.27 .483
L3	Max	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069
	J	Max	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.30 .130
D3	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
	D4	Max	6.96 .274	10.46 .412	13.36 .526	16.53 .651	19.71 .776	22.40 .882	25.56 1.006	28.75 1.132
L4	Max	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445	11.30 .445
	L5	Max	15.63 .615	15.63 .615	15.63 .615	15.63 .615	15.63 .615	15.63 .615	15.63 .615	15.63 .615
D5	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
	min	1.40 .055	1.40 .055	2.40 .094	5.60 .220	5.60 .220	8.80 .346	11.90 .469	15.10 .594	15.10 .594
D6	Max	3.20 .126	4.80 .189	6.40 .252	9.50 .374	12.70 .500	15.90 .626	19.10 .752	22.20 .878	25.40 1.000
	F	Max	21.03 .828	22.63 .891	25.81 1.016	28.98 1.141	30.56 1.203	37.31 1.469	37.31 1.469	42.06 1.656
L6	Max	22.22 .875	22.22 .875	22.22 .875	28.57 1.125	28.57 1.125	28.57 1.125	28.57 1.125	31.75 1.250	31.75 1.250
	L7	Max	31.73 1.249	31.73 1.249	31.73 1.249	37.68 1.483	37.68 1.483	37.68 1.483	37.68 1.483	41.23 1.623
D7	Max	15.67 .617	18.64 .734	21.79 .858	24.99 .984	28.24 1.112	30.94 1.218	34.16 1.345	37.29 1.468	40.46 1.593
	min	3.20 .126	4.00 .157	4.80 .189	5.50 .217	6.40 .252	7.90 .311	9.50 .374	10.30 .406	14.30 .563
D8	Max	6.40 .252	9.50 .374	11.10 .437	14.30 .563	15.90 .626	19.10 .752	22.20 .878	23.80 .937	25.40 1.000
	L8	Max	35.32 1.391	35.32 1.391	37.30 1.469	41.67 1.641	46.04 1.813	46.45 1.829	48.43 1.907	51.98 2.046
L9	Max	25.40 1.000	26.19 1.031	27.79 1.094	30.96 1.219	32.54 1.281	34.14 1.344	34.93 1.375	36.53 1.438	43.66 1.719
	L10	Max	39.29 1.547	39.29 1.547	42.27 1.664	45.64 1.797	50.01 1.969	50.42 1.985	52.40 2.063	55.95 2.203
L11	Max	3.71 .146	3.71 .146	3.71 .146	3.71 .146	3.71 .146	3.71 .146	4.27 .168	4.27 .168	4.27 .168

# 8T Series



## Backshells

backnut type 01



straight cable clamp type 02



elbow cable clamp type 03



## Receptacle type 7



shell size		08	10	12	14	16	18	20	22	24
B1	Max	32.16	35.34	38.51	41.69	45.65	48.42	51.62	54.77	57.94
		1.266	1.391	1.516	1.641	1.797	1.906	2.032	2.156	2.281
B2	Max	27.40	30.61	33.75	36.96	40.10	43.31	46.45	51.23	54.41
		1.079	1.205	1.329	1.455	1.579	1.705	1.829	2.017	2.142
D1	Max	12.04	15.02	19.08	22.25	25.43	28.61	31.78	34.95	38.13
		.474	.591	.751	.876	1.001	1.126	1.251	1.376	1.501
D2	Max	35.34	38.51	41.69	44.86	49.64	51.62	54.79	57.94	61.12
		1.391	1.516	1.641	1.766	1.954	2.032	2.157	2.281	2.406
L1	Max	11.26	11.26	11.26	11.26	11.26	11.26	11.92	11.92	11.92
		.443	.443	.443	.443	.443	.443	.469	.469	.469
L2	Max	12.55	12.55	12.55	12.55	12.55	12.55	11.73	11.73	13.08
		.494	.494	.494	.494	.494	.494	.462	.462	.515
L3	Max	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67
		.105	.105	.105	.105	.105	.105	.105	.105	.105
D3	Max	15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
		.617	.734	.858	.984	1.112	1.218	1.345	1.468	1.593
D4	Max	6.96	10.46	13.36	16.53	19.71	22.40	25.56	28.75	31.93
		.274	.412	.526	.651	.776	.882	1.006	1.132	1.257
L4	Max	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30
		.445	.445	.445	.445	.445	.445	.445	.445	.445
L5	Max	14.44	14.44	14.44	14.44	14.44	14.44	13.62	13.62	15.22
		.569	.569	.569	.569	.569	.569	.536	.536	.599
D5	Max	15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
		.617	.734	.858	.984	1.112	1.218	1.345	1.468	1.593
D6	min	1.40	1.40	2.40	5.60	5.60	8.80	11.90	15.10	15.10
		.055	.055	.094	.220	.220	.346	.469	.594	.594
D6	Max	3.20	4.80	6.40	9.50	12.70	15.90	19.10	22.20	25.40
		.126	.189	.252	.374	.500	.626	.752	.874	1.000
F	Max	21.03	22.63	25.81	28.98	30.56	37.31	37.31	42.06	44.45
		.828	.891	1.016	1.141	1.203	1.469	1.469	1.656	1.750
L6	Max	22.22	22.22	22.22	28.57	28.57	28.57	28.57	31.75	31.75
		.875	.875	.875	1.125	1.125	1.125	1.125	1.250	1.250
L7	Max	30.54	30.54	30.54	36.44	36.44	36.44	35.62	39.22	38.82
		1.202	1.202	1.202	1.435	1.435	1.435	1.402	1.544	1.528
D7	Max	15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
		.617	.734	.858	.984	1.112	1.218	1.345	1.468	1.593
D8	min	3.20	4.00	4.80	5.50	6.40	7.90	9.50	10.30	14.30
		.126	.157	.189	.217	.252	.311	.374	.406	.563
D8	Max	6.40	9.50	11.10	14.30	15.90	19.10	22.20	23.80	25.40
		.252	.374	.437	.563	.626	.752	.874	.937	1.000
L8	Max	35.32	35.32	37.30	41.67	46.04	46.45	48.43	51.98	54.78
		1.391	1.391	1.469	1.641	1.813	1.829	1.907	2.046	2.157
L9	Max	25.40	26.19	27.79	30.96	32.54	34.14	34.93	36.53	43.66
		1.000	1.031	1.094	1.219	1.281	1.344	1.375	1.438	1.719
L10	Max	38.10	38.10	40.08	44.45	48.82	49.23	50.39	53.94	58.34
		1.500	1.500	1.578	1.750	1.922	1.938	1.984	2.124	2.297

# 8T Series



## Backshells

backnut type 01



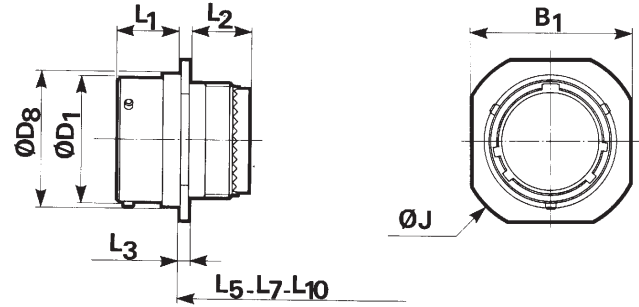
straight cable clamp type 02



elbow cable clamp type 03



## Cable connecting receptacle type 1



cable connecting receptacle backshell assembly overall length

shell size		08	10	12	14	16	18	20	22	24
B1	Max	14.62	18.92	22.22	25.62	27.82	31.35	34.62	38.02	42.02
		.576	.745	.875	1.009	1.095	1.234	1.363	1.497	1.654
D1	Max	12.04	15.02	19.08	22.25	25.43	28.61	31.78	34.95	38.13
		.474	.591	.751	.876	1.001	1.126	1.251	1.376	1.501
D8	Max	13.89	17.07	21.44	24.61	27.79	30.96	34.14	37.31	40.49
		.547	.672	.844	.969	1.094	1.219	1.344	1.469	1.594
J	Max	24.51	27.60	30.04	32.43	34.82	37.21	40.36	43.56	46.68
		.965	1.087	1.183	1.277	1.371	1.465	1.589	1.715	1.838
L1	Max	11.35	11.35	11.35	11.35	11.35	11.35	11.35	11.35	11.35
		.447	.447	.447	.447	.447	.447	.447	.447	.447
L2	Max	12.27	12.27	12.27	12.27	12.27	12.27	12.27	12.27	14.00
		.483	.483	.483	.483	.483	.483	.483	.483	.551
L3	Max	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
		.069	.069	.069	.069	.069	.069	.069	.069	.069
D2	Max	15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
		.617	.734	.858	.984	1.112	1.218	1.345	1.468	1.593
D3	Max	6.96	10.46	13.36	16.53	19.71	22.40	25.56	28.75	31.93
		.274	.412	.526	.651	.776	.882	1.006	1.132	1.257
L4	Max	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30
		.445	.445	.445	.445	.445	.445	.445	.445	.445
L5	Max	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	17.61
		.615	.615	.615	.615	.615	.615	.615	.615	.693
D4	Max	15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
		.617	.734	.858	.984	1.112	1.218	1.345	1.468	1.593
D5	min	1.40	1.40	2.40	5.60	5.60	8.80	11.90	15.10	15.10
		.055	.055	.094	.220	.220	.346	.469	.594	.594
D5	Max	3.20	4.80	6.40	9.50	12.70	15.90	19.10	22.20	25.40
		.126	.189	.252	.374	.500	.626	.752	.874	1.000
F	Max	21.03	22.63	25.81	28.98	30.56	37.31	37.31	42.06	44.45
		.828	.891	1.016	1.141	1.203	1.469	1.469	1.656	1.750
L6	Max	22.22	22.22	22.22	28.57	28.57	28.57	28.57	31.75	31.75
		.875	.875	.875	1.125	1.125	1.125	1.125	1.250	1.250
L7	Max	31.73	31.73	31.73	37.68	37.68	37.68	37.68	41.23	41.21
		1.249	1.249	1.249	1.483	1.483	1.483	1.483	1.623	1.622
D6	Max	15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
		.617	.734	.858	.984	1.112	1.218	1.345	1.468	1.593
D7	min	3.20	4.00	4.80	5.50	6.40	7.90	9.50	10.30	14.30
		.126	.157	.189	.217	.252	.311	.374	.406	.563
D7	Max	6.40	9.50	11.10	14.30	15.90	19.10	22.20	23.80	25.40
		.252	.374	.437	.563	.626	.752	.874	.937	1.000
L8	Max	35.32	35.32	37.30	41.67	46.04	46.45	48.43	51.98	54.78
		1.391	1.391	1.469	1.641	1.813	1.829	1.907	2.046	2.157
L9	Max	25.40	26.19	27.79	30.96	32.54	34.14	34.93	36.53	43.66
		1.000	1.031	1.094	1.219	1.281	1.344	1.375	1.438	1.719
L10	Max	39.29	39.29	42.27	45.64	50.01	50.42	52.40	55.95	60.73
		1.547	1.547	1.664	1.797	1.969	1.985	2.063	2.203	2.391

# 8T Series



## Contacts



Contact size	Contact type	Part numbers
22D	long spill male	8599-0720
	long spill female	8599-7707
	short spill male	8599-0730
20	short spill male	8599-0724
16	short spill male	8599-0726

shell size		08	10	12	14	16	18	20	22	24
A	#22D/#20	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028
	#16	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045
L1	male #22D PC/PL	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528
	female #22D PL	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528	13.40 .528
	male #20PC ; #16 PC	13.57 .534	13.57 .534	13.57 .534	13.57 .534	13.57 .534	13.57 .534	13.57 .534	13.57 .534	13.57 .534
L2	PL #22D	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335
	PC #22D	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157
	PC #20 / PC #16	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201
L3	male #22D PC/PL	13.61 .536	13.61 .536	13.61 .536	13.61 .536	13.61 .536	13.61 .536	12.95 .510	12.95 .510	12.95 .510
	female #22D PL	13.61 .536	13.61 .536	13.61 .536	13.61 .536	13.61 .536	13.61 .536	12.95 .510	12.95 .510	12.95 .510
	male #20 PC ; 16 PC	13.78 .543	13.78 .543	13.78 .543	13.78 .543	13.78 .543	13.78 .543	13.12 .517	13.12 .517	13.12 .517

## Receptacle type 2



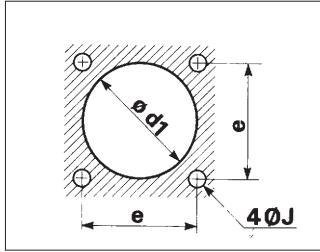
shell size		08	10	12	14	16	18	20	22	24
B1	Max	21.03 .828	24.24 .954	26.72 1.052	29.01 1.142	31.37 1.235	33.73 1.328	36.91 1.453	40.08 1.578	43.26 1.70
	E1	15.10 .594	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.93 1.375
D1	Max	12.01 .473	15.00 .591	19.06 .750	22.23 .875	25.41 1.000	28.61 1.126	31.78 1.251	34.95 1.376	38.13 1.501
	D2	Max	13.24 .521	16.19 .637	20.48 .806	23.70 .933	26.83 1.056	30.96 1.219	34.14 1.344	37.31 1.469
J	Max	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.30 .130	3.99 .157
	L1	Max	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447	11.35 .447
L2	Max	4.77 .188	4.77 .188	4.77 .188	4.77 .188	4.77 .188	4.77 .188	4.77 .188	4.77 .188	4.77 .188
	L3	Max	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069	1.75 .069
L4	Max	3.71 .146	3.71 .146	3.71 .146	3.71 .146	3.71 .146	3.71 .146	4.27 .168	4.27 .168	4.27 .168

# 8T Series

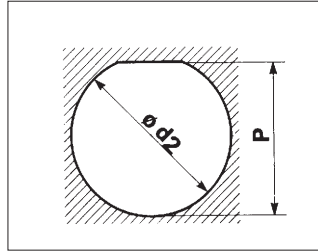


## Panel cut-out

### square flange receptacle

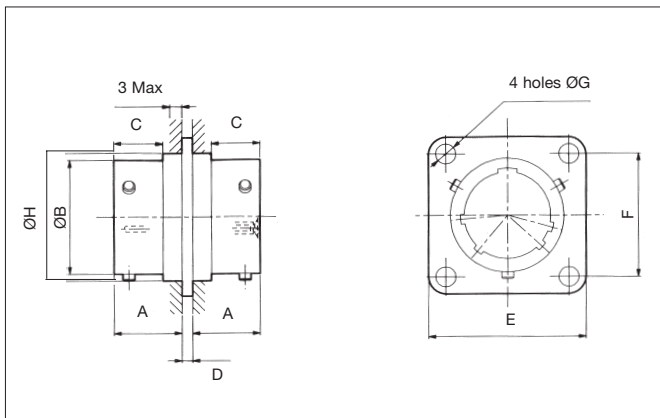


### jam nut receptacle



shell size	08	10	12	14	16	18	20	22	24
d1 min	14.15 .557	17.32 .682	21.69 .854	24.87 .979	28.04 1.104	31.22 1.229	34.39 1.354	37.57 1.479	40.74 1.604
d2	22.46 .884	25.58 1.007	28.80 1.134	31.98 1.259	35.15 1.384	38.28 1.507	41.50 1.634	44.68 1.759	47.85 1.884
J	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.91 .154
e	15.09 .594	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.93 1.375
P	21.08 .830	24.26 .955	27.53 1.084	30.68 1.208	33.86 1.333	37.06 1.459	40.03 1.576	43.21 1.701	46.38 1.826

## Through bulkhead receptacle



shell size	A Max	B Max	C Max	D Max	E Max	F	G Max	H Max
08	11.35 .447	12.04 .474	8.18 .322	1.75 .069	21.03 .828	15.09 .594	3.30 .130	13.89 .547
10	11.35 .447	15.02 .591	8.18 .322	1.75 .069	24.23 .954	18.26 .719	3.30 .130	17.07 .672
12	11.35 .447	19.08 .751	8.18 .322	1.75 .069	26.59 1.047	20.62 .812	3.30 .130	21.44 .844
14	11.35 .447	22.25 .876	8.18 .322	1.75 .069	28.98 1.141	23.01 .906	3.30 .130	24.61 .969
16	11.35 .447	25.43 1.001	8.18 .322	1.75 .069	31.34 1.234	24.61 .969	3.30 .130	27.79 1.094
18	11.35 .447	28.61 1.126	8.18 .322	1.75 .069	33.73 1.328	26.97 1.062	3.30 .130	30.96 1.219
20	11.35 .447	31.78 1.251	8.18 .322	1.75 .069	36.91 1.453	29.36 1.156	3.30 .130	34.14 1.344
22	11.35 .447	34.95 1.376	8.18 .322	1.75 .069	40.08 1.578	31.75 1.250	3.30 .130	37.31 1.469
24	11.35 .447	38.13 1.501	8.18 .322	1.75 .069	43.26 1.703	34.92 1.375	3.98 .157	40.49 1.594

## Ordering information

basic series	SN1738	04	T	••	••	PS	N	7
shell type	04 - through bulkhead receptacle							
class	T - sealed							
shell size	08-10-12-14-16-18-20-22-24							
contact layout	- see standard layout for 8T Series p 120							
contact type	PS - male/female contact							
polarization	N - normal							
plating	7 - olive green cadmium							

## Accessories

### protective caps

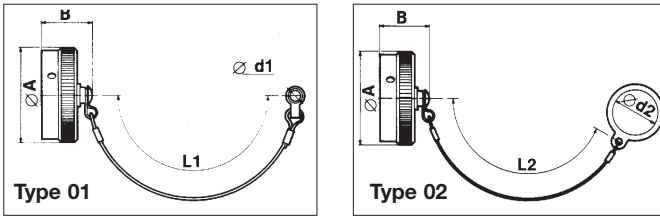
basic series	8T	E	01	G	14
cap type	E - cap for receptacle F - cap for plug				
fixing type	cap for receptacle 01 - plastic sleeved metal cord with eyelet 02 - plastic sleeved metal cord with ring		cap for plug 01 - plastic sleeved metal cord with eyelet		
plating	B - olive green cadmium (MIL-C 38999) F - nickel				
shell size	08-10-12-14-16-18-20-22-24				



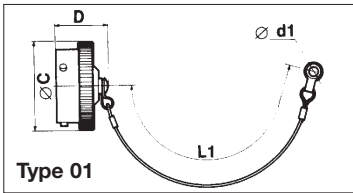
# 8T Series



## Protective caps for receptacles

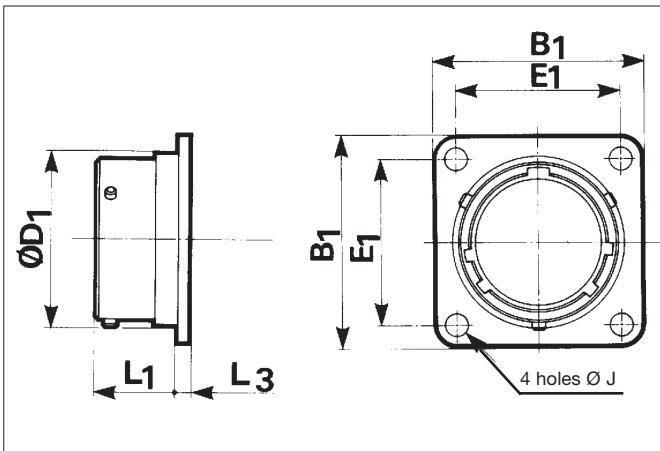


## Protective caps for plugs



shell size	A Max	B Max	C Max	D Max	d1 min	d2 min	L1	L2
08	19.05 .750	20.83 .820	18.29 .720	20.83 .820	3.12 .123	22.61 .890	76.20 3.000	76.20 3.000
10	21.82 .859	20.83 .820	21.59 .850	20.83 .820	3.12 .123	25.65 1.010	76.20 3.000	76.20 3.000
12	26.19 1.031	20.83 .820	25.40 1.000	20.83 .820	3.12 .123	28.96 1.140	88.90 3.500	88.90 3.500
14	29.36 1.156	20.83 .820	28.70 1.130	20.83 .820	3.12 .123	32.00 1.260	88.90 3.500	88.90 3.500
16	32.54 1.281	20.83 .820	31.75 1.250	20.83 .820	3.12 .123	35.31 1.390	88.90 3.500	88.90 3.500
18	35.71 1.406	20.83 .820	35.05 1.380	20.83 .820	3.12 .123	38.35 1.510	88.90 3.500	88.90 3.500
20	38.89 1.531	20.83 .820	38.10 1.500	20.83 .820	3.12 .123	41.66 1.640	101.60 4.000	101.60 4.000
22	41.68 1.641	20.83 .820	41.40 1.630	20.83 .820	3.12 .123	44.70 1.760	101.60 4.000	101.60 4.000
24	44.86 1.766	20.83 .820	44.45 1.750	20.83 .820	3.53 .139	48.01 1.890	101.60 4.000	101.60 4.000

## Dummy receptacle



shell size	part number	L1 Max	L3 Max	D1 Max	B1 Max	E1	J
08	8T3-08•UR	11.35 .447	1.75 .069	12.04 .474	21.03 .828	15.09 .594	3.30 .130
10	8T3-10•UR	11.35 .447	1.75 .069	15.02 .591	24.23 .954	18.26 .719	3.30 .130
12	8T3-12•UR	11.35 .447	1.75 .069	19.08 .751	26.59 1.047	20.62 .812	3.30 .130
14	8T3-14•UR	11.35 .447	1.75 .069	22.25 .876	28.98 1.141	23.01 .906	3.30 .130
16	8T3-16•UR	11.35 .447	1.75 .069	25.43 1.001	31.34 1.234	24.61 .969	3.30 .130
18	8T3-18•UR	11.35 .447	1.75 .069	28.61 1.126	33.73 1.328	26.97 1.062	3.30 .130
20	8T3-20•UR	11.35 .447	1.75 .069	31.78 1.251	36.91 1.453	29.36 1.156	3.30 .130
22	8T3-22•UR	11.35 .447	1.75 .069	34.95 1.376	40.08 1.578	31.75 1.250	3.30 .130
24	8T3-24•UR	11.35 .447	1.75 .069	38.13 1.501	43.26 1.703	34.93 1.375	3.99 .157

• : G olive green cadmium  
F nickel

## Gaskets

Shell size	Part numbers	
	gasket for receptacle type 3 (ordered separately)	O. ring for receptacle type 7
08	8525-1431	MS9068-022
10	8525-1432	MS9068-024
12	8525-1433	MS9068-026
14	8525-1434	MS9068-028
16	8525-1435	MS9068-029
18	8525-1436	MS9068-030
20	8525-1437	MS9068-031
22	8525-1438	MS9068-032
24	8525-1439	MS9068-033

## Plastic protective caps

Shell size	Part numbers	
	cap for receptacles	cap for plug
08	8500-5585A	8500-5594
10	8500-5586A	71120
12	8500-5587A	8500-5596
14	8500-5588A	8500-5597
16	8500-5589A	8500-5598
18	8500-5590A	8500-5589
20	8500-5591A	8500-5600
22	8500-5592A	8500-5601
24	8500-5593A	8500-5602

## Reusable fixing plate

Two, three or four-holes self-locking fixing-plates are available at SHTP. See page 126.

# 8D Aluminum Series



## Applications

High density connectors for all military and aeronautical purposes with severe vibration environment

## Standards

MIL-C 38999 Series III - QPL approved  
Pr EN 3645



## Description

- High density connector from 1 to 128 contacts
- Sizes 22D, 20, 16, 12, # 16 coax and # 8 triax
- A quick screw coupling with anti-decoupling mechanism
- 100 % scoop proof
- An EMI/RFI reinforced shielding with grounding fingers

## Characteristics

### Mechanical

- Shell : aluminum alloy
- Plating :
  - olive green cadmium (W)
  - nickel (F)
- Insulator : thermoplastic or thermoset
- Grommet and seal : silicone elastomer
- Contact : copper alloy
- Plating : gold over nickel
- Endurance :
  - 500 mating/unmating operations
- Shock : high impact as per MIL-S 901
- Vibration :
  - sine 60 g with temperature cycling and simulated accessory (36 hours)
  - random :
    - 44.1 grms at high temperature
    - 49.5 grms at ambient temperature
- Contact retention (mini force in N) :
  - size 22 D : 45 N      - size 20 : 67 N
  - size 16 : 111 N      - size 12 : 111 N
  - size 8 : 111 N

### Electrical

- Test voltage (Vrms)

Service	sea level	at 21000 m
M	1300	800
N	1000	600
I	1800	1000
II	2300	1000

- Contact resistance :
  - resistance of wire included in measurement :
  - size 22 D : 14.6 mΩ      - size 16 : 3.8 mΩ
  - size 20 : 7.3 mΩ      - size 12 : 1.7 mΩ
  - size 8 : 3 mΩ
- Insulation resistance : ≥ 5000 MΩ (at 500 Vdc)
- Contact rating :
  - size 22 D : 5 A      - size 16 : 13 A
  - size 20 : 7.5 A      - size 12 : 23 A
  - size 8 : 45 A
- Shell continuity : - olive green plating : 2.5 mΩ  
- nickel plating : 1 mΩ
- Shielding : - 65 db to 10 GHz (F)  
- 50 db to 10 GHz (W)  
- 85 db to 1 GHz (F and W)
- Triaxial contact : # 8
  - bandwidth : 0 - 20 MHz
  - voltage rating : 500 Vac maxi.  
125 Vac at 21000 m
  - voltage drop :
    - inner and middle contact ≤ 55 mV under 1A
    - outer contact ≤ 75 mV under 12A

### Climatic

- Temperature range :
  - cadmium plating (W) -65°C +175°C
  - nickel plating (F) -65°C +200°C
- Sealing : mated connectors meet altitude immersion requirements of MIL-C 38999
- Salt spray to : MIL-STD 1344 method 1001
  - 500 hours (version W)
  - 48 hours (version F)
- Damp heat : MIL-C 38999 - 10 cycles (24 hours)

### Resistance to fluids

- To MIL-C 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-C 25769 diluted
  - De-icing fluid : MIL-A 8243
  - Extinguishing fluid : chlorobromethane
  - Cooling fluid : Coolanol

## Ordering information

### Part numbers

basic series	8 D 0 - 11 W 35 P N ***									
shell type	0 - square flange receptacle 7 - jam nut receptacle 5 - plug with RFI shielding									
designator	- - connectors with crimp contacts L - receptacle with long spill (male and female # 22D) C - receptacle with short spill (male and female # 22D - # 20 - # 16) S - receptacle with specific spill (male and female # 22D) W - receptacle with male contacts size 22D for wire wrap (3 wraps) T - receptacle with male contacts size 20 for wire wrap (2 wraps)									
shell size	09-11-13-15-17-19-21-23-25									
plating	W - olive green cadmium F - nickel									
contact layout	- see table p 120									
contact type	P - male S - female					A - male connector supplied less contact or with specific contacts B - female connector supplied less contact or with specific contacts				
polarization	N- normal A-B-C-D-E - see table p 109 046 tinned straight spill									

# 8D Aluminum Series



## MIL-C 38999 part numbers

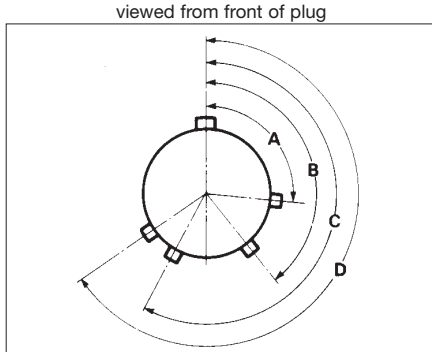
<b>basic series</b>	<b>D 38999/</b>										<b>20</b>	<b>W</b>	<b>B</b>	<b>35</b>	<b>P</b>	<b>N</b>	
<b>shell type</b>	<b>20</b> - square flange receptacle <b>24</b> - jam nut receptacle <b>26</b> - plug with RFI shielding																
<b>plating</b>	<b>W</b> - olive green cadmium <b>F</b> - nickel																
<b>shell size</b>	<b>A to J</b>																
	09	11	13	15	17	19	21	23	25								
	A	B	C	D	E	F	G	H	J								
<b>contact layout</b>	- see table p 109																
<b>contact type</b>	<b>P</b> - male <b>S</b> - female		<b>A</b> - male connector supplied less contact or with specific contacts <b>B</b> - female connector supplied less contact or with specific contacts														
<b>polarization</b>	<b>N</b> - normal <b>A-B-C-D-E</b> - see table below																

## Backshells

<b>basic series</b>											<b>8D</b>	<b>102</b>	<b>B</b>	<b>02</b>
<b>shell size</b>	09	11	13	15	17	19	21	23	25					
<b>index number</b>	101	102	103	104	105	106	107	108	109					
<b>plating</b>	<b>B</b> - olive green cadmium <b>F</b> - nickel													
<b>backshell type</b>	<b>01</b> - backnut <b>02</b> - straight cable clamp <b>03</b> - elbow cable clamp <b>13</b> - backshell for heat shrink sleeving													

**NOTE :** Backshells will be marked with supplier's part number. Labels will bear both part numbers : supplier's and Souriau's.

## Polarization



shell size	MS shell size	angles	N	A	B	C	D	E
9	A	A°	105	102	80	35	64	91
		B°	140	132	118	140	155	131
		C°	215	248	230	205	234	197
		D°	265	320	312	275	304	240
11	B	A°	95	113	90	53	119	51
		B°	141	156	145	156	146	141
		C°	208	182	195	220	176	184
		D°	236	292	252	255	298	242
13	C	A°	95	113	90	53	119	51
		B°	141	156	145	156	146	141
		C°	208	182	195	220	176	184
		D°	236	292	252	255	298	242
15	D	A°	95	113	90	53	119	51
		B°	141	156	145	156	146	141
		C°	208	182	195	220	176	184
		D°	236	292	252	255	298	242
17	E	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
19	F	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
21	G	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
23	H	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
25	J	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272

Note : Polarization A.B.C.D.E. consult us.

# 8D Aluminum Series



## Dimensions

### Receptacle type 0



shell size	MS shell size	A Max	B Max	C Max	D Thread	E	F	G	H	J
9	A	20.90 .823	10.60 .417	2.50 .098	M 12x 1-6g	23.80 .937	18.26 .719	15.09 .594	3.25 .128	5.49 .216
11	B	20.90 .823	10.60 .417	2.50 .098	M 15 x 1-6g	26.20 1.031	20.62 .812	18.26 .719	3.25 .128	4.93 .194
13	C	20.90 .823	10.60 .417	2.50 .098	M 18 x 1-6g	28.60 1.126	23.01 .906	20.62 .812	3.25 .128	4.93 .194
15	D	20.90 .823	10.60 .417	2.50 .098	M 22x 1-6g	31.00 1.220	24.61 .969	23.01 .906	3.25 .128	4.39 .173
17	E	20.90 .823	10.60 .417	2.50 .098	M 25 x 1 -6g	33.30 1.311	26.97 1.062	24.61 .969	3.25 .128	4.93 .194
19	F	20.90 .823	10.60 .417	2.50 .098	M 28 x 1-6g	36.50 1.437	29.36 1.156	26.97 1.062	3.25 .128	4.93 .194
21	G	20.10 .791	11.40 .449	3.20 .126	M 31 x 1-6g	39.70 1.563	31.75 1.250	29.36 1.156	3.25 .128	4.93 .194
23	H	20.10 .791	11.40 .449	3.20 .126	M 34x 1-6g	42.90 1.689	34.93 1.375	31.75 1.250	3.91 .154	6.15 .242
25	J	20.10 .791	11.40 .449	3.20 .126	M 37x 1-6g	46.00 1.811	38.10 1.500	34.93 1.375	3.91 .154	6.15 .242

### Receptacle type 7



shell size	MS shell size	A	B Max	C Max	D Max	E Max	F	G Thread
9	A	16.53 .651	9.90 .390	3.20 .126	30.50 .126	24.00 .945	27.00 1.063	M 12x1-6g
11	B	19.07 .751	9.90 .390	3.20 .126	35.20 .126	27.00 1.063	31.80 1.252	M 15x 1-6g
13	C	23.82 .938	9.90 .390	3.20 .126	38.40 .126	32.00 1.260	34.90 1.374	M 18x1-6g
15	D	26.97 1.062	9.90 .390	3.20 .126	41.60 .126	36.00 1.417	38.10 1.500	M 22x1-6g
17	E	30.15 1.187	9.90 .390	3.20 .126	44.80 .126	37.00 1.457	41.30 1.626	M 25x1-6g
19	F	33.32 1.312	9.90 .390	3.20 .126	49.50 .126	41.00 1.614	46.00 1.811	M 28x1-6g
21	G	36.50 1.437	9.90 .390	3.20 .126	52.70 .126	46.00 1.811	49.20 1.937	M 31x1-6g
23	H	39.67 1.562	9.90 .390	3.20 .126	55.90 .126	50.00 1.969	52.40 2.063	M 34x1-6g
25	J	42.85 1.687	9.90 .390	3.20 .126	59.00 .126	51.23 2.017	55.60 2.189	M 37x1-6g

# 8D Aluminum Series



## Receptacle with straight spill contacts



Shell size		9	11	13	15	17	19	21	23	25
A	# 22D	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028	0.70 .028
	# 20	0.50 .020	0.50 .020	0.50 .020	0.50 .020	0.50 .020	0.50 .020	0.50 .020	0.50 .020	0.50 .020
	# 16	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045	1.15 .045
L2CM	#22D	min	10.52 .414	10.52 .414	10.34 .407	10.34 .407	10.34 .407	10.34 .407	10.34 .407	10.34 .407
		Max	11.46 .451	11.46 .451	11.28 .444	11.28 .444	11.28 .444	11.28 .444	11.28 .444	11.28 .444
L2CF	#22D	min	10.19 .401	10.19 .401	10.01 .394	10.01 .394	10.01 .394	10.01 .394	10.01 .394	10.01 .394
		Max	11.46 .451	11.46 .451	11.28 .444	11.28 .444	11.28 .444	11.28 .444	11.28 .444	11.28 .444
L2CM	#20	min	10.69 .421	10.69 .421	10.51 .414	10.51 .414	10.51 .414	10.51 .414	10.51 .414	10.51 .414
		Max	11.63 .458	11.63 .458	11.45 .451	11.45 .451	11.45 .451	11.45 .451	11.45 .451	11.45 .451
L2CF	#20	min	10.69 .421	10.69 .421	10.51 .414	10.51 .414	10.51 .414	10.51 .414	10.51 .414	10.51 .414
		Max	11.63 .458	11.63 .458	11.45 .451	11.45 .451	11.45 .451	11.45 .451	11.45 .451	11.45 .451
L2CM	#16	min	10.69 .421	10.69 .421	10.51 .414	10.51 .414	10.51 .414	10.51 .414	10.51 .414	10.51 .414
		Max	11.63 .458	11.63 .458	11.45 .451	11.45 .451	11.45 .451	11.45 .451	11.45 .451	11.45 .451
L2CF	#16	min	10.69 .421	10.69 .421	10.51 .414	10.51 .414	10.51 .414	10.51 .414	10.51 .414	10.51 .414
		Max	11.63 .458	11.63 .458	11.45 .451	11.45 .451	11.45 .451	11.45 .451	11.45 .451	11.45 .451
L3	PL #22D	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335	8.50 .335
	PC #22D	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157	4.00 .157
	PC #20	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201
	PC #16	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201	5.10 .201
L4CM	#22D	min	9.48 .373	9.48 .373	9.48 .373	9.48 .373	9.48 .373	9.48 .373	9.59 .421	9.59 .421
		Max	10.58 .417	10.58 .417	10.58 .417	10.58 .417	10.58 .417	10.58 .417	10.69 .421	10.69 .421
L4CF	#22D	min	9.15 .360	9.15 .360	9.15 .360	9.15 .360	9.15 .360	9.15 .360	9.26 .365	9.26 .365
		Max	10.58 .417	10.58 .417	10.58 .417	10.58 .417	10.58 .417	10.58 .417	10.69 .421	10.69 .421
L4CM	#20	min	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.76 .384	9.76 .384
		Max	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.86 .428	10.86 .428
L4CF	#20	min	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.76 .384	9.76 .384
		Max	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.86 .428	10.86 .428
L4CM	#16	min	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.76 .384	9.76 .384
		Max	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.86 .428	10.86 .428
L4CF	#16	min	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.65 .380	9.76 .384	9.76 .384
		Max	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.75 .423	10.86 .428	10.86 .428

CM : male contact

CF : female contact

PL : long spill

PC : short spill

# 8D Aluminum Series



## Plug type 5



shell size	MS shell size	A Max	B Thread	C Max
9	A	31.00 1.220	M 12 x 1 - 6g	21.80 .858
11	B	31.00 1.220	M 15 x 1 - 6g	25.00 .984
13	C	31.00 1.220	M 18 x 1 - 6g	29.40 1.157
15	D	31.00 1.220	M 22 x 1 - 6g	32.50 1.280
17	E	31.00 1.220	M 25 x 1 - 6g	35.70 1.406
19	F	31.00 1.220	M 28 x 1 - 6g	38.50 1.516
21	G	31.00 1.220	M 31 x 1 - 6g	41.70 1.642
23	H	31.00 1.220	M 34 x 1 - 6g	44.90 1.768
25	J	31.00 1.220	M 37 x 1 - 6g	48.00 1.890

## Through bulkhead receptacle (Special SHTP)



shell size	A Max	B	C	D Max	E	F	G	H	J
9	20.90 .823	15.72 .619	14.43 .568	2.26 .089	15.09 .594	18.26 .719	23.80 .937	3.25 .128	5.49 .216
11	20.90 .823	18.90 .744	17.60 .693	2.26 .089	18.26 .719	20.62 .812	26.20 1.031	3.25 .128	4.93 .194
13	20.90 .823	22.07 .869	20.78 .818	2.26 .089	20.62 .812	23.01 .906	28.60 1.126	3.25 .128	4.93 .194
15	20.90 .823	25.25 .994	23.95 .943	2.26 .089	23.01 .906	24.61 .969	31.00 1.220	3.25 .128	4.39 .173
17	20.90 .823	30.00 1.181	28.35 1.116	2.26 .089	24.61 .969	26.97 1.062	33.30 1.311	3.25 .128	4.93 .194
19	20.90 .823	31.57 1.243	29.95 1.179	2.26 .089	26.97 1.062	29.36 1.156	36.50 1.437	3.25 .128	4.93 .194
21	20.10 .791	34.75 1.368	33.12 1.304	2.97 .177	29.36 1.156	31.75 1.250	39.70 1.563	3.25 .128	4.93 .194
23	20.10 .791	37.92 1.193	36.30 1.429	2.97 .117	31.75 1.250	34.93 1.375	42.90 1.689	3.91 .154	6.15 .242
25	20.10 .791	41.10 1.678	39.47 1.554	2.97 .117	34.93 1.375	38.10 1.500	46.00 1.811	3.91 .154	6.15 .242

## Part number

basic series **SN1843-13 W •• PS N**

shell size 09-11-13-15-17-19-21-23-25

plating W - olive green cadmium

contact layout please consult us

contact type male/female contact

polarization

## Panel cut-out



shell size	9 A	11 B	13 C	15 D	17 E	19 F	21 G	23 H	25 J
A	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.93 1.375	38.10 1.500
G	15.09 .594	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.94 1.376
B min	16.66 .656	20.22 .796	23.42 .922	26.59 1.047	30.96 1.219	32.94 1.297	36.12 1.422	39.29 1.547	42.47 1.672
C	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.25 .128	3.91 .154	3.91 .154
D min	13.11 .516	15.88 .625	19.05 .750	23.01 .906	25.81 1.016	28.98 1.141	32.16 1.266	34.93 1.375	37.69 1.484
E	17.78 .700	20.96 .825	25.65 1.010	28.83 1.135	32.01 1.260	35.18 1.385	38.35 1.510	41.53 1.635	44.70 1.760
F	17.02 .670	19.59 .771	24.26 .955	27.56 1.085	30.73 1.210	33.91 1.335	37.08 1.460	40.26 1.585	43.43 1.710

Maxi thickness of panel mounting for square flange receptacle - type 0  
 - front mounting : 3.2 mm Max.  
 - rear mounting : 2.5 mm Max.

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- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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