

8D composite Series

Applications

High density connectors for industrial, military and aeronautical purposes wherever weight savings and severe climatic or mechanical environment are targeted

Standards

En 3645 (under qualification)
MIL-C 38999 Series III - Issue J



Description

- High density connector from 1 to 128 contacts
- Sizes 22D, 20, 16, 12
- A quick screw coupling with self locking mechanism
- 100 % scoop proof
- EMI enhanced protection by shielding ring and shell to shell bottoming
- Resistance to salt spray > 2000 hours
- Endurance > 1500 cycles (mating/unmating)

Characteristics

Mechanical

- Weight : typically 25 % lighter than aluminium version
- Shell : carbon reinforced thermoplastic
- Plating : olive green cadmium (J)/nickel (M)
- Insulator : thermoplastic or thermoset
- Grommet and interfacial seal : silicone elastomer
- Contact : copper alloy
- Plating : gold over nickel
- Endurance : 1500 mating/unmating operations
- Shock : 300 g - 3 ms EN 2591 - D2 method A
- Vibration :
 - sine : 10 to 2000 Hz, 3 x 12 hrs (60 g, 140 - 2000 Hz) with temperature cycling.
 - random : 50 to 2000 Hz, 2 x 8 hrs (1g²/Hz, 100 - 2000 Hz) at T Max. 25 to 2000 Hz, 2 x 8 hrs (5g²/Hz, 100 - 300 Hz) at T amb. test with accessories in accordance with EN2591-D3
- Contact retention :

size 22 : 45 N	size 20 : 67 N
size 16 : 111 N	size 12 : 111 N
size 8 : 111 N	

Electrical

- Test voltage rating (Vrms)

service	sea level	at 21 000 m
M	1300	800
N	1000	600
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
 - size 8 : 3 mΩ
- Contact rating
 - size 22D : 5 A
 - size 20 : 7.5 A
 - size 16 : 13 A
 - size 12 : 23 A
 - size 8 : 45 A
- Insulation resistance : ≥ 5000 MΩ (at 500 Vdc)
- Shell continuity :
 - olive green plating : 3 mΩ
 - nickel plating : 3 mΩ
- Shielding : 90 db at 100 GHz; 85 db at 1 GHz
- Triaxial contact # 8
 - bandwidth : 0 - 20 MHz
 - voltage rating : 500 Vac Max. /125 Vac at 21 000 m
 - voltage drop : inner and middle contact ≤ 55 mV under 1A outer contact ≤ 75 mV under 12 A

Climatic

- Salt spray : 2000 hours
- Temperature range :
 - cadmium (J) : -65°C +175°C
 - nickel (M) : -65°C +200°C
 - without plating (x) : -65°C +175°C
- Fire resistance : Fire exposure during 30 sec. EN2591-C17 method A
- Damp heat : 10 cycles in accordance with EN 2591 - C21 altitude-low temperature : 5 cycles (5x44 Hrs ; -65°C min ; -5,5KPa min) EN2591 - C3
- Sealing : 3 cycles (3x1 Hrs) Altitude immersion 1,1 KPa EN2591 - C14
- Moisture : exposure during 28 days EN2591 - C6

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 To NFC 93422
 - F46, F54, 0/180, H515, H542, XH45

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Ordering information

FCI Souriau part numbers

basic series	8 D	0	-	11	J	35	P	N
style	0 - square flange receptacle 5 - plug with RFI shielding							
type	- connectors with standard 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	J - olive green cadmium M - nickel X - without plating							
contact layout	- see table p 8							
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					
orientation*	N - normal A							

* For other orientations, please consult us.

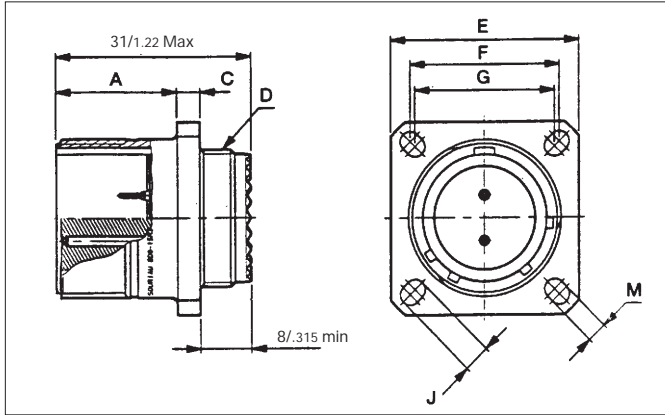
MIL-C 38999 part numbers*

basic series	D 38999/	20	J	B	35	P	N																		
shell type	20 - square flange receptacle 24 - jam nut receptacle 26 - plug with RFI shielding																								
protection	J - olive green cadmium M - nickel																								
shell size	<table border="1"> <tr> <td>09</td><td>11</td><td>13</td><td>15</td><td>17</td><td>19</td><td>21</td><td>23</td><td>25</td> </tr> <tr> <td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>J</td> </tr> </table>							09	11	13	15	17	19	21	23	25	A	B	C	D	E	F	G	H	J
09	11	13	15	17	19	21	23	25																	
A	B	C	D	E	F	G	H	J																	
contact layout	- see table p 8																								
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orientation	N - normal A																								

* QPL in progress.

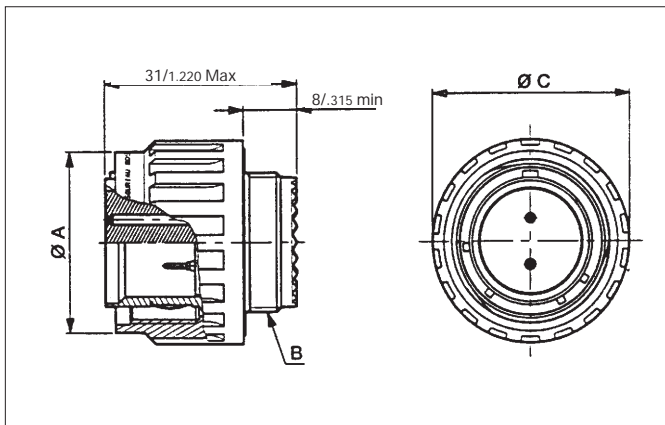
8D composite Series

Dimensions Receptacle type 0



shell size	MS shell	A	C Max	D Thread	E	F	G	H	J
09	A	19.50 .768	3.65 .144	M 12 x 1-6g	23.80 .937	18.26 .719	15.09 .594	3.25 .128	5.49 .216
11	B	19.50 .768	3.65 .144	M 15 x 1-6g	26.20 1.031	20.62 .812	18.26 .719	3.25 .128	4.93 .194
13	C	19.50 .768	3.65 .144	M 18 x 1-6g	28.60 1.126	23.01 .906	20.62 .812	3.25 .128	4.93 .194
15	D	19.50 .768	3.65 .144	M 22 x 1-6g	31.00 1.220	24.61 .969	23.01 .906	3.25 .128	4.93 .194
17	E	19.50 .768	3.65 .144	M 25 x 1-6g	33.30 1.311	26.97 1.062	24.61 .969	3.25 .128	4.93 .194
19	F	19.50 .768	3.65 .144	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	18.70 .736	4.35 .171	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	18.70 .736	4.35 .171	M 34 x 1-6g	42.90 1.689	34.93 1.375	31.75 1.250	3.91 .154	6.15 .242
25	J	18.70 .736	4.35 .171	M 37 x 1-6g	46.00 1.811	38.10 1.500	34.93 1.375	3.91 .154	6.15 .242

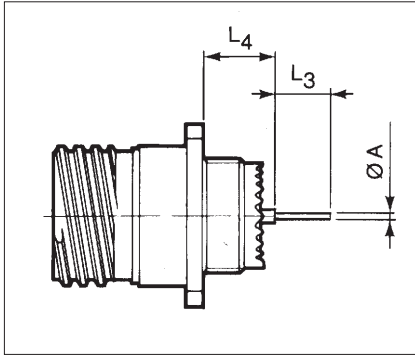
Plug type 5



shell size	MS shell size	A	B Thread	C
09	A	20.60 .811	M 12 x 1-6g	21.80 .858
11	B	23.60 .929	M 15 x 1-6g	25.00 .984
13	C	28.20 1.110	M 18 x 1-6g	29.40 1.157
15	D	31.30 1.232	M 22 x 1-6g	32.50 1.280
17	E	34.50 1.358	M 25 x 1-6g	35.70 1.406
19	F	37.30 1.469	M 28 x 1-6g	38.50 1.516
21	G	40.50 1.594	M 31 x 1-6g	41.70 1.642
23	H	43.70 1.720	M 34 x 1-6g	44.90 1.768
25	J	46.80 1.843	M 37 x 1-6g	48.00 1.890

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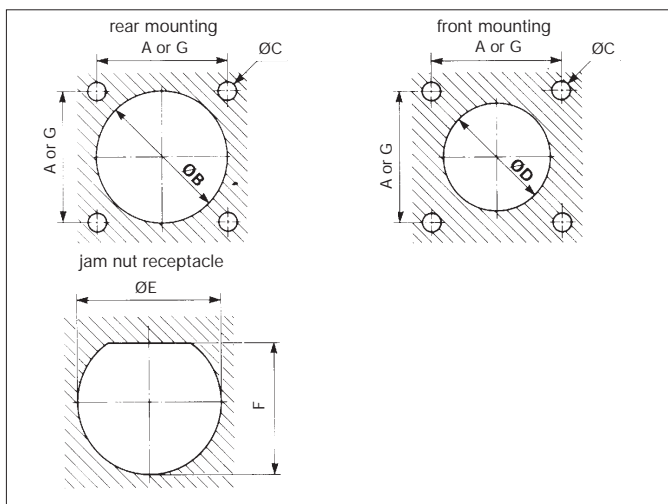
Receptacle type 0 - Receptacle with straight spill contacts



		shell size	09	11	13	15	17	19	21	23	25
A CM & CF		PL&PC #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
		PS#22D	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
		PC#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
		PC#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
L3 CM & CF		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
		PS #22D	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197
		PC #20	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197
		PC #16	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197	5.00 .197
L4CM	PL&PC#22D	mini	9.47 .373	9.47 .373	9.47 .373	9.47 .373	9.47 .373	9.47 .373	9.57 .377	9.57 .377	9.57 .377
		Max.	10.38 .409	10.38 .409	10.38 .409	10.38 .409	10.38 .409	10.38 .409	10.48 .413	10.48 .413	10.48 .413
	PS&22D	mini	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.740 .383	9.740 .383	9.740 .383
		Max.	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.650 .419	10.650 .419	10.650 .419
L4CF	PL&PC#22D	min.	9.14 .360	9.14 .360	9.14 .360	9.14 .360	9.14 .360	9.14 .360	9.24 .364	9.24 .364	9.24 .364
		Max.	10.38 .409	10.38 .409	10.38 .409	10.38 .409	10.38 .409	10.38 .409	10.48 .413	10.48 .413	10.48 .413
	PS#22D	min.	9.31 .367	9.31 .367	9.31 .367	9.31 .367	9.31 .367	9.31 .367	9.41 .370	9.41 .370	9.41 .370
		Max.	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.65 .419	10.65 .419	10.65 .419
L4CM	PC#20	min.	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.74 .383	9.74 .383	9.74 .383
		Max.	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.65 .419	10.65 .419	10.65 .419
L4CF	PC#20	min.	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.74 .383	9.74 .383	9.74 .383
		Max.	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.65 .419	10.65 .419	10.65 .419
L4CM	PC#16	min.	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.74 .383	9.74 .383	9.74 .383
		Max.	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.65 .419	10.65 .419	10.65 .419
L4CM	PC#16	min.	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.64 .380	9.74 .383	9.74 .383	9.74 .383
		Max.	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.55 .415	10.65 .419	10.65 .419	10.65 .419

CM : male contact CF : female contact PL : long spill PC : short spill PS : specific spill

Panel cut-out



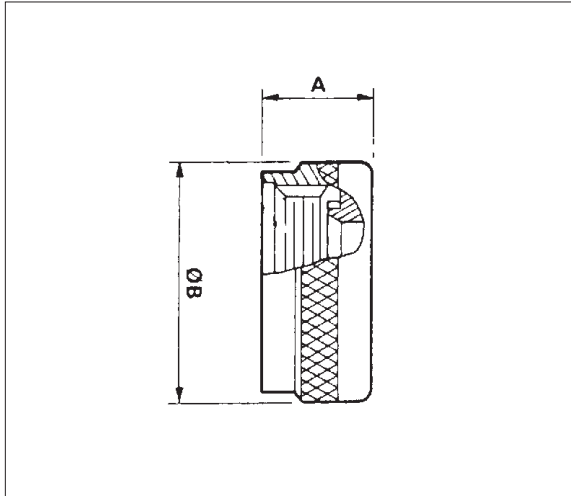
shell size	9 A	11 B	13 C	15 D	17 E	19 F	21 G	23 H	25 J
A	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.93 1.375	38.10 1.500
G	15.09 .594	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.94 1.376
B min	16.66 .656	20.22 .796	23.42 .922	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	15.58 .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.

8D Aluminium & Composite Series

Backshells

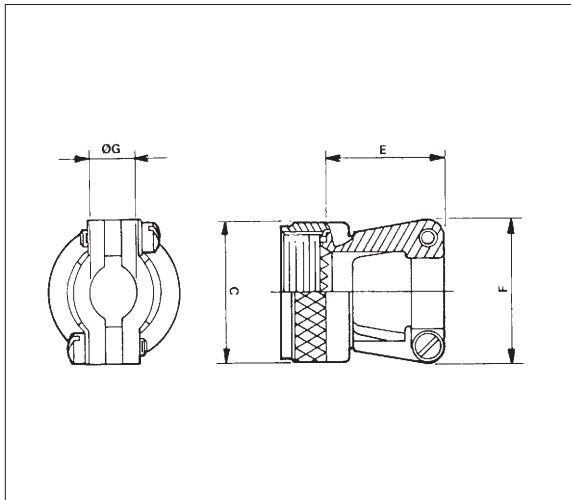
Backnut



shell size	FCI Souriau P/N	Manufacturer P/N	A Max	B Max
09	8D 101 □ 01	S2707 - 64 - ■	16.20 .638	19.05 .750
11	8D 102 □ 01	S2707 - 65 - ■	16.20 .638	21.59 .850
13	8D 103 □ 01	S2707 - 67 - ■	16.20 .638	25.40 1.000
15	8D 104 □ 01	S2707 - 69 - ■	16.20 .638	27.94 1.100
17	8D 105 □ 01	S2707 - 70 - ■	16.20 .638	31.75 1.250
19	8D 106 □ 01	S2707 - 71 - ■	16.20 .638	35.56 1.400
21	8D 107 □ 01	S2707 - 72 - ■	16.20 .638	38.10 1.500
23	8D 108 □ 01	S2707 - 74 - ■	16.20 .638	41.91 1.650
25	8D 109 □ 01	S2707 - 77 - ■	16.20 .638	44.45 1.750

□ = B : olive green cadmium
= F : nickel
■ = 34 : olive green cadmium
= 12 : nickel

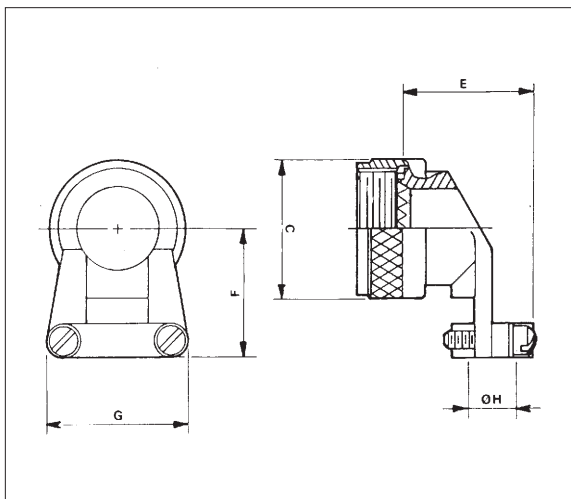
Straight cable-clamp



shell size	FCI Souriau P/N	MIL-C85049 P/N	C Max	E Max	F Max	G	
						closed	open
09	8D 101 □ 02	M85049/38-09■	19.60 .772	14.10 .555	19.10 .752	3.20 .126	5.20 .205
11	8D 102 □ 02	M85049/38-11■	20.80 .819	16.90 .665	21.10 .831	4.70 .185	7.30 .287
13	8D 103 □ 02	M85049/38-13■	23.90 .941	20.10 .791	25.10 .988	7.40 .291	10.60 .417
15	8D 104 □ 02	M85049/38-15■	27.20 1.071	20.10 .791	26.60 1.047	8.90 .350	12.10 .476
17	8D 105 □ 02	M85049/38-17■	30.70 1.209	23.20 .913	33.50 1.319	12.70 .500	15.90 .626
19	8D 106 □ 02	M85049/38-19■	34.50 1.358	29.60 1.165	36.90 1.453	13.20 .520	17.90 .705
21	8D 107 □ 02	M85049/38-21■	37.60 1.480	32.80 1.291	39.50 1.555	14.80 .583	21.10 .831
23	8D 108 □ 02	M85049/38-23■	40.60 1.598	35.90 1.413	42.00 1.654	16.40 .646	24.30 .957
25	8D 109 □ 02	M85049/38-25■	43.20 1.701	47.70 1.878	45.70 1.799	22.20 .874	31.80 1.252

□ = B : olive green cadmium
= F : nickel
■ = A : black anodized
= W : olive green cadmium

Elbow cable clamp

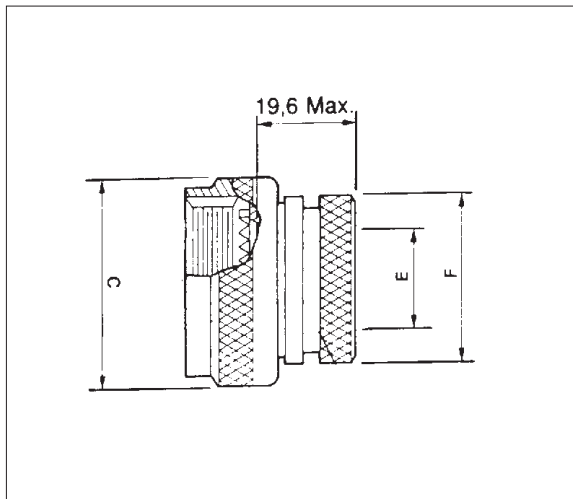


shell size	FCI Souriau P/N	MIL-C85049 P/N	C Max	E Max	F Max	G Max	H	
							closed	open
09	8D 101 □ 03	M85049/39-09■	19.60 .772	17.90 .705	20.60 .811	19.20 .756	3.20 .126	5.20 .205
11	8D 102 □ 03	M85049/39-11■	20.80 .819	20.00 .787	22.00 .866	21.10 .831	4.70 .185	7.30 .287
13	8D 103 □ 03	M85649/39-13■	23.90 .941	24.90 .980	23.60 .929	25.10 .988	7.40 .291	10.60 .417
15	8D 104 □ 03	M85049/39-15■	27.20 1.071	26.40 1.039	25.20 .992	26.60 1.047	8.90 .350	12.10 .476
17	8D 105 □ 03	M85049/39-17■	30.70 1.209	30.20 1.189	26.80 1.055	33.50 1.319	12.70 .500	15.90 .626
18	8D 106 □ 03	M85049/39-19■	34.50 1.358	33.00 1.299	31.30 1.232	36.90 1.453	13.20 .520	17.90 .705
21	8D 107 □ 03	M85049/39-21■	37.60 1.480	36.20 1.425	32.90 1.295	39.40 1.551	14.80 .583	21.10 .831
23	8D 108 □ 03	M85049/39-23■	40.60 1.598	39.40 1.551	34.50 1.358	42.00 1.654	16.40 .646	24.30 .957
25	8D 109 □ 03	M85049/39-25■	43.20 1.701	42.50 1.673	36.10 1.421	45.10 1.776	17.90 .705	27.50 1.083

□ = B : olive green cadmium
= F : nickel
■ = A : black anodized
= W : olive green cadmium

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Backshell for heat shrink boot



shell size	FCI Souriau P/N	MIL-C85049 P/N	c Max	e Max	f Max
09	8D 101 □ 13	M85049/69-09 A	19.60 .772	6.80 .268	13.50 .531
11	8D 102 □ 13	M85049/69-11 A	20.80 .819	10.10 .398	15.40 .606
13	8D 103 □ 13	M85049/69-13 A	23.90 .941	13.00 .512	19.70 .776
15	8D 104 □ 13	M85049/69-15 A	27.20 1.071	16.20 .638	21.30 .839
17	8D 105 □ 13	M85049/69-17 A	30.70 1.209	19.30 .760	24.50 .965
19	8D 106 □ 13	M85049/69-19 A	34.50 1.358	21.60 .850	26.50 1.043
21	8D 107 □ 13	M85049/69-21 A	37.60 1.480	24.80 .976	30.90 1.217
23	8D 108 □ 13	M85049/69-23 A	40.60 1.598	27.90 1.098	34.40 1.354
25	8D 109 □ 13	M85049/69-25 A	43.20 1.701	31.10 1.224	36.70 1.445

□ = B : olive green cadmium
= F : nickel

A : black anodized

Backshell for screen termination and cable clamp

basic series	M85049/19	11	W	03
shell size	09-11-13-15-17-19-21-23-25			
plating	W - olive green cadmium N - nickel			
clamp size indicator	- see table 1 and 2			

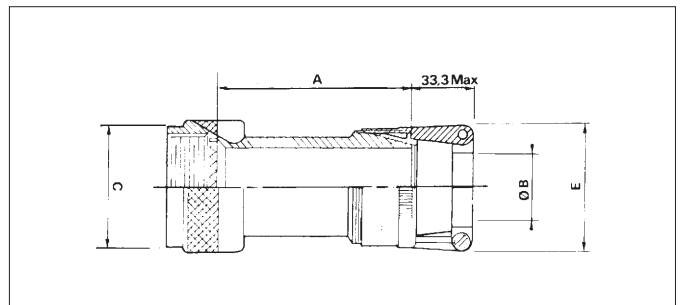


Table 1

shell size	A Max	C Max	clamp size indicator
9	38.10 1.500	19.60 .772	01-02
11	38.10 1.500	20.80 .819	01-02-03
13	38.10 1.500	23.90 .941	02-03-04
15	38.10 1.539	27.20 1.071	02-03-04-05
17	38.10 1.500	30.70 1.209	02-03-04-05-06
19	38.10 1.500	34.50 1.358	03-04-05-06-07
21	38.10 1.500	37.60 1.480	03-04-05-06-07-08
23	38.10 1.500	40.60 1.598	03-04-05-06-07-08
25	38.10	43.20	04-05-06-07-08-09-10

Nota : for other backshell type see catalogue M85049, STS and SE uni adaptor.

Table 2

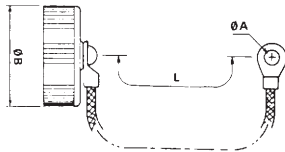
clamp size indicator	B		E Max
	min	Max	
01	1.60 .063	3.20 .126	19.80 .780
02	3.20 .126	6.40 .252	24.60 .969
03	6.40 .252	9.50 .374	27.00 1.063
04	7.90 .311	12.70 .500	29.40 1.157
05	11.10 .437	15.90 .626	31.80 1.252
06	14.30 .563	19.10 .752	34.90 1.374
07	17.40 .685	22.20 .874	38.10 1.500
08	20.60 .811	25.40 1.000	41.30 1.626
09	23.80 .937	28.60 1.126	44.50 1.752
10	27.00 1.063	31.80 1.252	47.60 1.874

8D Aluminium & Composite Series

Caps

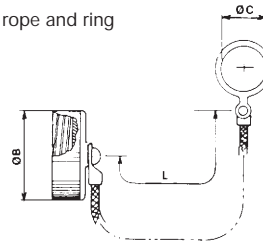
caps for receptacle

with stainless steel rope and eyelet



shell size	part numbers		A min	B Max	L
	SUNBANK	MIL-C38999*			
09	S2453-09W-■	D38999/33 W 09R	3.90 .154	22.86 .900	127.00 5.000
11	S2453-11W-■	D38999/33 W 11R	3.90 .154	27.96 1.101	127.00 5.000
13	S2453-13W-■	D38999/33 W 13R	3.90 .154	30.48 1.200	127.00 5.000
15	S2453-15W-■	D38999/33 W 15R	3.90 .154	31.75 1.250	127.00 5.000
17	S2453-17W-■	D38999/33 W 17R	3.90 .154	36.83 1.450	127.00 5.000
19	S2453-19W-■	D38999/33 W 19R	3.90 .154	38.10 1.500	127.00 5.000
21	S2453-21W-■	D38999/33 W 21R	3.90 .154	41.91 1.650	127.00 5.000
23	S2453-23W-■	D38999/33 W 23R	3.90 .154	44.45 1.750	127.00 5.000
25	S2453-25W-■	D38999/33 W 25R	3.90 .154	48.26 1.900	127.00 5.000

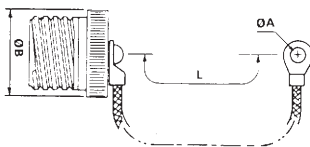
with stainless steel rope and ring



shell size	part numbers		C min	B Max	L
	SUNBANK	MIL-C38999*			
09	S2453-09W-■-1	D38999/33 W 09N	17.64 .694	22.86 .900	127.00 5.000
11	S2453-11W-■-1	D38999/33 W 11N	21.97 .865	27.96 1.101	127.00 5.000
13	S2453-13W-■-1	D38999/33 W 13N	25.12 .989	30.48 1.200	127.00 5.000
15	S2453-15W-■-1	D38999/33 W 15N	29.92 1.178	31.75 1.250	127.00 5.000
17	S2453-17W-■-1	D38999/33 W 17N	32 1.260	36.83 1.450	127.00 5.000
19	S2453-19W-■-1	D38999/33 W 19N	36.27 1.428	38.10 1.500	127.00 5.000
21	S2453-21W-■-1	D38999/33 W 21N	38.25 1.506	41.91 1.650	127.00 5.000
23	S2453-23W-■-1	D38999/33 W 23N	42.62 1.679	44.45 1.750	127.00 5.000
25	S2453-25W-■-1	D38999/33 W 25N	44.45 1.750	48.26 1.900	127.00 5.000

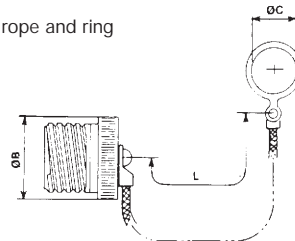
caps for plug

with stainless steel rope and eyelet



shell size	Part numbers		A min	B Max	L
	SUNBANK	MIL-C38999*			
09	S2454-09F-■ S	D38999/32 W 09R	3.90 .154	22.86 .900	127.00 5.000
11	S2454-11F-■ S	D38999/32 W 11R	3.90 .154	27.96 1.101	127.00 5.000
13	S2454-13F-■ S	D38999/32 W 13R	3.90 .154	30.48 1.200	127.00 5.000
15	S2454-15F-■ S	D38999/32 W 15R	3.90 .154	31.75 1.250	127.00 5.000
17	S2454-17F-■ S	D38999/32 W 17R	3.90 .154	36.83 1.450	127.00 5.000
19	S2454-19F-■ S	D38999/32 W 19R	3.90 .154	38.10 1.500	127.00 5.000
21	S2454-21F-■ S	D38999/32 W 21R	3.90 .154	41.91 1.650	127.00 5.000
23	S2454-23F-■ S	D38999/32 W 23R	3.90 .154	44.45 1.750	127.00 5.000
25	S2454-25F-■ S	D38999/32 W 25R	3.90 .154	48.26 1.900	127.00 5.000

with stainless steel rope and ring



shell size	Part numbers		C min	B Max	L
	SUNBANK	MIL-C38999*			
09	S2454-09W-■ S	D38999/32 W 09N	12.92 .509	22.86 .900	127.00 5.000
11	S2454-11W-■ S	D38999/32 W 11N	17.78 .700	27.96 1.101	127.00 5.000
13	S2454-13W-■ S	D38999/32 W 13N	19.27 .759	30.48 1.200	127.00 5.000
15	S2454-15W-■ S	D38999/32 W 15N	22.60 .890	31.75 1.250	127.00 5.000
17	S2454-17W-■ S	D38999/32 W 17N	25.62 1.009	36.83 1.450	127.00 5.000
19	S2454-19W-■ S	D38999/32 W 19N	28.95 1.140	38.10 1.500	127.00 5.000
21	S2454-21W-■ S	D38999/32 W 21N	31.97 1.259	41.91 1.650	127.00 5.000
23	S2454-23W-■ S	D38999/32 W 23N	34.03 1.340	44.45 1.750	127.00 5.000
25	S2454-25W-■ S	D38999/32 W 25N	38.32 1.509	48.26 1.900	127.00 5.000

■ : Plating - 34 : Olive green cadmium - 12 : Nickel

* For MIL-C P/N : W : Olive green

8LT-8D-8ST-8T

Contact layouts for 8LT-8D-8ST-8T - viewed from front face of male insulator

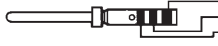
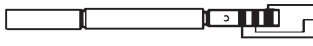

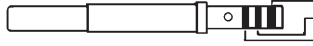







shell size		8LT-8D		8ST-8T																
09	08	35 6 # 22D		8LT 8D 8ST 8T	98 3 # 20		8LT 8D 8ST													
11	10	35 13 # 22D		8LT 8D 8ST 8T	98 6 # 20		8LT 8D 8ST	01 1 # 12		8LT 8D 8ST	05 5 # 20		8LT 8D 8ST	*	04 4 # 20		8LT 8D 8ST			
13	12	35 22 # 22D		8LT 8D 8ST 8T	98 10 # 20		8LT 8D 8ST	08 8 # 20		8LT 8D 8ST	26 2 # 12 6 # 22D		8D	*	04 4 # 16		8D 8ST 8LT			
15	14	35 37 # 22D		8LT 8D 8ST 8T	19 19 # 20		8LT 8D 8ST	05 5 # 16		8LT 8D 8ST	97 8 # 20 4 # 16		8LT 8D 8ST	18 18 # 20		8LT 8D 8ST 8T	*			
17	16	35 55 # 22D		8LT 8D 8ST 8T	26 26 # 20		8LT 8D 8ST	06 6 # 12		8LT 8D 8ST 8T	08 8 # 16		8LT 8D 8ST 8T	99 2 # 16 21 # 20		8LT 8D 8ST 8T	75 2 # 8		8LT 8D 8ST	*
19	18	35 66 # 22D		8LT 8D 8ST 8T	32 32 # 20		8LT 8D 8ST	11 11 # 16		8LT 8D 8ST										
21	20	35 79 # 22D		8LT 8D 8ST 8T	41 41 # 20		8LT 8D 8ST 8T	16 16 # 16		8LT 8D 8ST 8T	11 11 # 12		8LT 8D 8ST 8T	75 4 # 8		8LT 8D 8ST	*	39 37 # 20 2 # 16		8LT 8D 8ST
23	22	35 100 # 22D		8LT 8D 8ST 8T	53 53 # 20		8LT 8D 8ST	21 21 # 16		8LT 8D 8ST										
25	24	35 128 # 22D		8LT 8D 8ST 8T	61 61 # 20		8LT 8D 8ST 8T	46 40 # 20 4 # 16 - 2 # 8		8LT 8D 8ST	19 19 # 12		8LT 8D 8ST	*						
25	24	29 29 # 16		8LT 8D 8ST 8T	43 23 # 20 20 # 16		8LT 8D 8ST	24 12 # 16 12 # 12		8LT 8D 8ST 8T	08 8 # 8 triaxial		8D	*	04 48 # 20 8 # 16		8D			

- size 22 contacts
- size 20 contacts
- size 16 contacts
- size 12 contacts
- size 8 triaxial contacts
- size 8 coaxial contacts
- * not QPL approved to date
- contact layouts available with receptacle type 2

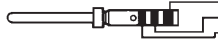
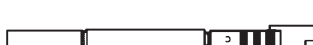




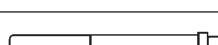
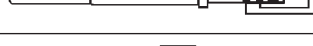
Please consult us for the composite version

8LT-8D-8ST-8T

Standard contacts for 8LT-8D-8ST

contact size	contact type	standard contacts		MIL - C contacts	
		part numbers without colour code	part numbers	profile and colour code	
# 22D	male	8599-0702	M39029/58.360		orange blue black
	female	8599-0706	M39029/56.348		orange yellow grey
# 20	male	8599-0703	M39029/58.363		orange blue orange
	female	8599-0707	M39029/56.351		orange green brown
# 16	male	8599-0704	M39029/58.364		orange blue yellow
	female	8599-0708	M39029/56.352		orange green red
# 12	male	8599-0705	M39029/58.365		orange blue green
	female	8599-0709	M39029/56.353		orange green orange
# 8	male	8599-7740	-		
	female	8599-7741	-		
	boot	8590-4571	-		

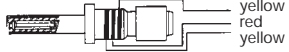


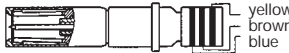
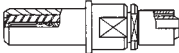


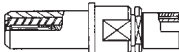



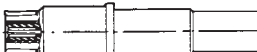

Standard contacts for 8T

contact size	contact type	standard contacts		MIL - C contacts	
		part numbers without colour code	part numbers	profile and colour code	
# 22D	male	8599-0702	M39029/58.360		orange blue black
	female	8599-0710	M39029/57.354		orange green yellow
# 20	male	8599-0703	M39029/58.363		orange blue orange
	female	8599-0711	M39029/57.357		orange green purple
# 16	male	8599-0704	M39029/58.364		orange blue yellow
	female	8599-0712	M39029/57.358		orange green grey
# 12	male	8599-0705	M39029/58.365		orange blue green
	female	8599-0713	M39029/57.359		orange green white

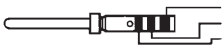

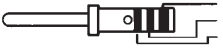
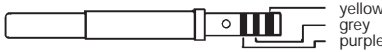
NOTES : (1) Boots for sealing to be ordered separately

8LT-8D-8ST-8T

Coaxial and triaxial contacts for 8LT-8D-8ST

contact size	contact type	standard contacts	MIL - C contacts	
		part numbers without colour code	part numbers	profile and colour code
# 16 coaxial contact	male	8599-0916		
	female	8599-0920		
# 12 coaxial contact	male	8599-0980 ⁽²⁾ (SN 1891K-0980) ⁽²⁾	M39029/28.211 ⁽²⁾	
	female	8599-0990 ⁽²⁾ (SN 1891K-0990) ⁽²⁾	M39029/75.416 ⁽²⁾	
# 8 coaxial contact	male	SN 1891K-0810	M39029/59.366	
	female	SN 1891K-0820	M39029/60.367	
	boot	8590-4571 ⁽²⁾	-	
# 8 coaxial contact	male	SN 1891K-0811 ⁽²⁾	-	
	female	SN 1891K-0821 ⁽²⁾	-	
	boot	8977-343A ^{(1) (2)}	-	
# 8 triaxial contact	male	8599-0988	M39029/90.529	
	female	8599-0998	M39029/91.530	
	boot	8590-4571 ⁽¹⁾	-	

Thermocouple contacts for 8LT-8D-8ST

contact size	contact type	standard contacts	MIL - C contacts	
		part numbers without colour code	part numbers	profile and colour code
# 20 chromel	male	8599-0749 yellow dot	8599-0949	
	female	8599-0753 yellow dot	8599-0953	
# 20 alumel	male	8599-0761 black dot	8599-0961	
	female	8599-0765 black dot	8599-0965	

NOTES : (1) Boots for sealing to be ordered separately - (2) Please consult us.

8LT-8D-8ST-8T

Straight spill contacts for 8LT - 8D

contact size	contact type	part number	profile
# 22D	male long spill	8599-0720	
	male short spill	8599-0730	
	male specific spill	8599-0796	
	female long spill	8599-0721	
	female short spill	8599-0731	
	female specific spill	8599-0797	
# 20	male short spill	8599-0724	
	female short spill	8599-0725	
# 16	male short spill	8599-0726	
	male short spill	8599-0727	
# 16 coaxial contact	male	SN1891K16-050M (2)	

(2) Please consult us.

Wire wrap for 8D

contact size	contact type	part number	profile
# 22D	male	8599-0790	
# 22D	male	8599-0791	

Dimensions - crimp contacts

contact size	contact type	contact Ø	conductor section				external Ø over insulation	
			AWG		mm		min	Max.
# 22D	male/female	0.76	28	22	0.095	0.34	0.76	1.37
# 20	male/female	1	24	20	0.21	0.60	1.02	2.11
# 16	male/female	1.6	20	16	0.60	1.34	1.65	2.77
# 12	male/female	2.4	14	12	1.91	3.18	2.46	3.61
# 8	male/female	3.64	-	8	-	8.98	4.50	6.50
# 16 coaxial contact	male/female	1.6	RG 174 - RG 179 - RG 316				1.65	2.60
# 12 coaxial contact	male/female	2.4	RG 174 - RG 179 - RG 316				2.40	2.60
# 8 coaxial contact	male/female	5.5	RG 188A/U				-	2.80
# 8 (1) coaxial contact	male/female	5.5	NRFC - 50 - COAX 3 - SSO 21 653				4.6	4.80
# 8 triaxial contact	male/female	5.5	MIL-C 17/176.00002 - FILECA F. 2703/14 RAYCHEM CHEMINAX 10612 - FILOTEX M 17/176.00002				3.15	3.40

Note : (1) SN1891K - 0811/0821 : please consult us.

straight spill contacts

contact size	contact type	contact Ø (mm)	spill Ø (mm)
# 22D	male long spill	0.76	0.70
	male short spill	0.76	0.70
	female long spill	0.76	0.70
	female short spill	0.76	0.70
	male specif spill	0.76	0.50
	female specif spill	0.76	0.50
# 20	male short spill	1	0.70
	female short spill	1	0.70
# 16	male short spill	1.6	1
	female short spill	1.6	1

wire wrap contact

contact size	contact type	contact Ø (mm)	spill Ø (mm)
# 22D	male	0.76	0.86
# 22	male	1	0.86

8LT-8D-8ST-8T

Tooling for 8LT-8D-8ST-8T crimping

contact size	wire size		type	part number plier M22520 / 1-01 (FCI Souriau 8365)		part number plier M22520 / 2-01 (FCI Souriau 8476-01)		
				NORME/SPEC	FCI Souriau	NORME/SPEC	FCI Souriau	
	mm ²	AWG						part number turret
				NORME/SPEC	FCI Souriau	NORME/SPEC	FCI Souriau	
22D	0.38	22	male	—	—	M22520/2-09	8476-09	
	0.21	24						
	0.15	26	female	—	—	M22520/2-07	8476-07	
	0.095	28						
20	0.60	20	male	M22520/1-04	8365-04	M22520/2-10	8476-10	
	0.38	22	female	M22520/1-04	8365-04	M22520/2-10	8476-10	
	0.21	24						
	16	1.34	16	male	M22520/1-04	8365-04	—	—
0.93		18	female	M22520/1-04	8365-04	—	—	
0.60		20						
12		3.18	12	male	M22520/1-04	8365-04	—	—
	1.91	14	female	M22520/1-04	8365-04	—	—	
	8	8.98	8	male		JAT M810G	—	JAT T810G
female					JAT M810G	—	JAT T810G	

Coaxial contact # 16

contact type	pliers	locators
inner contact	M22520/2.01	M22520/2.35
outer contact	M22520/4.01	M22520/4.02

Coaxial contact # 8

(SN 1891K-0810 and SN 1891K-0820)

contact type	pliers	locators	stripping tool
inner contact	M22520/2.01	SN 1891 K 101	SN 1891 K 102
outer contact	M22520/5.01	Y 248	SN 1891 K 102

Coaxial contact # 8

(SN 1891K-0811 and SN 1891K-0821)

contact type	pliers	locators	stripping tool
inner contact	M22520/2.01	SN 1891 K 101	(1)
outer contact	(1)	(1)	(1)

Coaxial contact # 12

(SN1891K-0980 and SN1891K-0990)

contact type	pliers	locators
outer contact (male and female)	M22520/5.01	8976-730
inner contact (male)	M22520/2.01	8976-720
inner contact (female)	M22520/2.01	8972-710

Triaxial contact # 8

(8599-0988 and 8599-0998)

contact type	pliers	locators
middle contact	M22520/2.01	M22520/2.37
inner contact	M22520/2.01	SN 1767 K 100
ferrule	M22520/5.01	Y631

(1) Please consult us.

8LT-8D-8ST-8T

Insertion and extraction of wired contacts for 8LT-8D-8ST-8T

contact size	part numbers		colour	
	SPEC	FCI Souriau	insert.	extract
# 22D	M81969/14-01	-	green	white
# 20	M81969/14-10	-	red	white
# 16 standard & coaxial	M81969/14-03	-	blue	white
# 12 standard & coaxial	M81969/14-04	-	yellow	white
# 8	-	-	manual insertion	steel
# 8 coaxial & triaxial	-	8660-197	manual insertion	steel

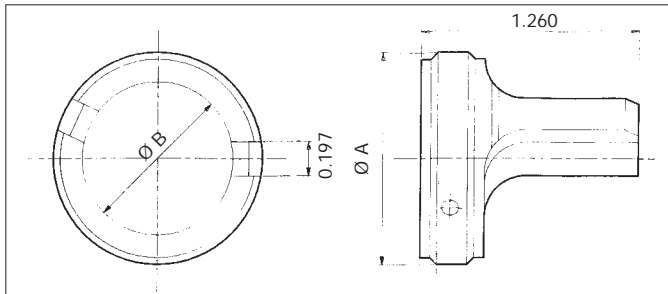
Filler plugs

contact size	part numbers		Colour
	SPEC	FCI Souriau	
# 22D	MS27488-22	8660-212	black
# 20	MS27488-20	8522-389A	red
# 16 standard & coaxial	MS27488-16	8522-390A	blue
# 12 standard & coaxial	MS27488-12	8522-391A	yellow

These filler plugs are installed at the rear of unwired contacts to maintain connector sealing.

Dummy contact for cavity of triaxial and coaxial contacts # 8 : 8599-0308.

Coupling ring adaptor for 8T-8LT (SHTP)



basic series	SN1097 • • • A
size	
plating	- olive green cadmium F - nickel (for 8T only)
suffix	

part number		A Max	B
HE 308 (8LT)	HE 309 (8T)		
	SN1097-08-*A	28 1.102	19.70 0.776
SN1097-09 A	SN1097-10-*A	30.8 1.213	22.20 0.874
SN1097-11 A	SN1097-12-*A	35.1 1.382	26.60 1.047
SN1097-13 A	SN1097-14-*A	38.3 1.508	29.80 1.173
SN1097-15 A	SN1097-16-*A	41.5 1.634	32.90 1.295
SN1097-17 A	SN1097-18-*A	44.7 1.760	36.10 1.421
SN1097-19 A	SN1097-20-*A	47.5 1.870	39.30 1.547
SN1097-21 A	SN1097-22-*A	50.6 1.992	42.10 1.657
SN1097-23 A	SN1097-24-*A	53.8 2.118	45.10 1.776
SN1097-25 A		57.10 2.248	48.40 1.906

* Plating type

Reusable fixing plate

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