



8D - D38999 Composite Series



MIL-DTL-38999 Series III



8D - D38999 Composite Series

Connector part numbers

Basic Series	8D	0	-	11	J	35	P	N	-	-	L
Shell style: 0 : Square flange receptacle 5 : Plug with RFI shielding.											
Type: None : Connectors with standard crimp contacts. L : Receptacle with long PC tail (male and female size #22D, #20). C : Receptacle with short PC tail (male and female #22D, #20, #16). S : Receptacle with specific PC tail (male et female #22D) W : Receptacle with male contacts #22D for wire wrap (3 wraps) T : Receptacle with male contacts #20 for wire wrap (2 wraps) P : Receptacle with solder cup (male and female size #22D ; male #16 & #12 ; female #16 & #12 and male female #20 please consult us)											
Shell size: 09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25											
Plating: J : Olive drab cadmium M : Nickel X : Without plating											
Contact layout: See page 139 to 141											
Contact type: P, H : Pin A : Connector supplied less pin contact or with specific contacts (Connector marking: A+ orientation) S, J : Socket B : Connector supplied less socket contact or with specific contacts (Connector marking: B+ orientation) P & S = 500 mating - unmating J & H = 1500 mating - unmating											
Orientation: N, A, B, C, D & E (see page 190)											
Spécification: 046 : Tinned straight PC tails 251 : Connector provided with power contacts (layouts with contact #8)											
Special custom None : Standard plastic cap M : Antistatic plastic cap											
L : For P or S contact type only, connectors delivered without contacts, connectors marking P or S plus orientation.											

MIL-DTL 38999 part numbers*

Basic Series	D38999	20	M	B	35	P	N	L
Shell style: 20: Square flange receptacle 26: Plug with RFI shielding.								
Plating: J: Olive drab cadmium M: Nickel								
Shell size: A - B - C - D - E - F - G - H - J								
Contact layout: See page 141 for layout according to MIL-DTL-38999								
Contact type: P, H: Pin. A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation). S, J: Socket. B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation). P & S = 500 mating - unmating J & H = 1500 mating - unmating								
Orientation: N, A, B, C, D & E (see page 190)								
L: For P or S contact type only, connector delivered without contacts, connector marking P or S (without L)								

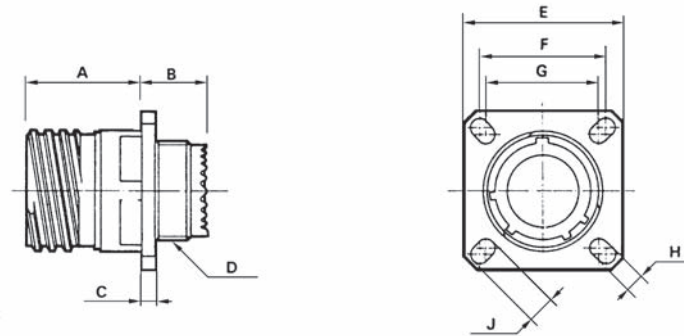
* **Note:** To place an order of MIL connectors delivered without MIL removable crimp contacts and keep P or S plus orientation marking, it must be specify clearly on the order (by adding a suffix L at the end of the P/N or specified in comment).



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Dimensions

Receptacle type 0



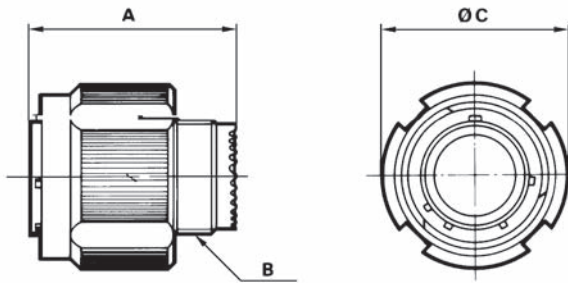
Shell size	A Max.	B Max.	C Max.	D thread	E ± 0,30	F	G	H ± 0,20	J ± 0,20
09 (A)	19.65	11.96	3.65	M12 x 1-6g	23.80	18.26	15.09	3.25	5.49
11 (B)	19.65	11.96	3.65	M15 x 1-6g	26.20	20.62	18.26	3.25	4.93
13 (C)	19.65	11.96	3.65	M18 x 1-6g	28.60	23.01	20.62	3.25	4.93
15 (D)	19.65	11.96	3.65	M22 x 1-6g	31.00	24.61	23.01	3.25	4.39
17 (E)	19.65	11.96	3.65	M25 x 1-6g	33.30	26.97	24.61	3.25	4.93
19 (F)	19.65	11.96	3.65	M28 x 1-6g	36.50	29.36	26.97	3.25	4.93
21 (G)	18.85	12.76	4.35	M31 x 1-6g	39.70	31.75	29.36	3.25	4.93
23 (H)	18.85	12.76	4.35	M34 x 1-6g	42.90	34.93	31.75	3.91	6.15
25 (J)	18.85	12.76	4.35	M37 x 1-6g	46.00	38.10	34.93	3.91	6.15

Dimensions in millimeters



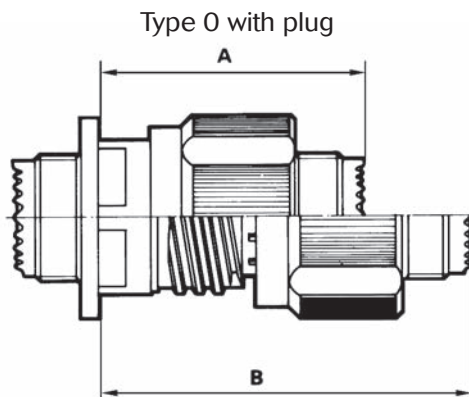
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Plug type 5



Shell size	A Max.	B thread	C Max.
09 (A)	31.00	M12 x 1-6g	21.80
11 (B)	31.00	M15 x 1-6g	25.00
13 (C)	31.00	M18 x 1-6g	29.40
15 (D)	31.00	M22 x 1-6g	32.50
17 (E)	31.00	M25 x 1-6g	35.70
19 (F)	31.00	M28 x 1-6g	38.50
21 (G)	31.00	M31 x 1-6g	41.70
23 (H)	31.00	M34 x 1-6g	44.90
25 (J)	31.00	M37 x 1-6g	48.00

Mated connectors dimensions



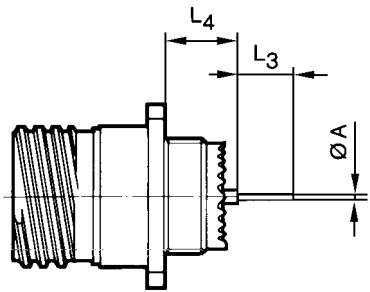
Shell size	A Max.	B Max.
09 (A)	37.00	52.30
11 (B)	37.00	52.30
13 (C)	37.00	52.30
15 (D)	37.00	52.30
17 (E)	37.00	52.30
19 (F)	37.00	52.30
21 (G)	36.00	51.30
23 (H)	36.00	51.30
25 (J)	36.00	51.30

Dimensions in millimeters



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Receptacle with straight PC tail contacts



	Shell size			09 (A)	11 (B)	13 (C)	15 (D)	17 (E)	19 (F)	21 (G)	23 (H)	25 (J)
	Contact size	Contact type	Spill type									
A	# 22D	M & F	L & C					0.70				
	# 22D	M & F	S					0.50				
	# 20	M & F	C					0.70				
	# 16	M & F	C					1.15				
L3	# 22D	M & F	L					8.50				
	# 22D	M & F	C					4.00				
	# 22D	M & F	S					5.00				
	# 20	M & F	C					5.00				
L4	Min.	# 22D	M					9.48				
	Max.	# 22D	M			10.38					10.48	
	Min.	# 22D	F			9.15					9.26	
	Max.	# 22D	F			10.58					10.69	
	Min.	# 22D	M			9.65					9.76	
	Max.	# 22D	M			10.55					10.65	
	Min.	# 22D	F			9.65					9.76	
	Max.	# 22D	F			10.55					10.65	
	Min.	# 20	M			9.65					9.76	
	Max.	# 20	M			10.55					10.65	
	Min.	# 20	F			9.65					9.76	
	Max.	# 20	F			10.55					10.65	
	Min.	# 16	M			9.65					9.76	
	Max.	# 16	M			10.55					10.65	
	Min.	# 16	F			9.65					9.76	
	Max.	# 16	F			10.55					10.65	

M : Male contact F: Female contact L: Long PC tail C : Short PC tail S: Specific PC tail

Dimensions in millimeters



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Standard backshells part numbers

Straight cable clamp (M85049/91)

Basic series M85049 91 11 M

Backshell type:

91: Straight cable clamp

Shell size:

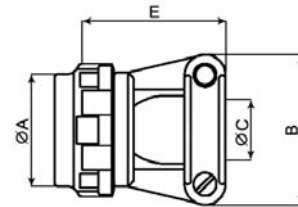
09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25

Plating:

J: Cadmium olive drab over electroless nickel

M: Electroless nickel

T: Without plating



See table 1 for dimensions

90° cable clamp (M85049/92)

Basic series M85049 92 11 M

Backshell type:

92: 90° cable clamp

Shell size:

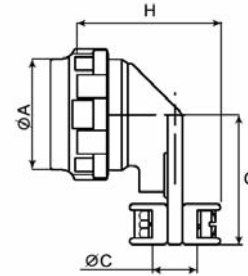
09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25

Plating:

J: Cadmium olive drab over electroless nickel

M: Electroless nickel

T: Without plating



See table 1 for dimensions

Table 1

Shell size	ØA Max.	B Max.	ØC Max.	E Max.	G	H
09	21.80	24.90	5.55	21.25	22.20	26.95
11	25.00	26.0	6.70	24.30	23.80	27.95
13	29.40	30.50	8.75	27.95	26.20	30.00
15	32.50	33.00	11.70		28.60	33.00
17	35.70	36.10	13.85	31.25	33.30	35.05
19	38.50	38.60	15.60	35.80	34.95	36.85
21	41.50	41.65	17.75	38.35	38.10	39.15
23	44.90	45.00	19.80	42.15	41.30	41.15
25	48.00	48.00	21.60	44.70	44.45	42.95

Dimensions in millimeters



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Straight backshell for heat shrink boots accommodation (M85049/88)

Basic series **M85049** **88** **11** **M** **02**

Backshell type:

88: Straight backshell for heat shrink boots

Shell size:

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

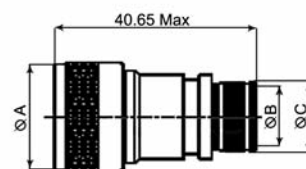
Plating:

J: Cadmium olive drab over electroless nickel

M: Electroless nickel

Entry size:

02 ou **03:** see table 2



See tableau 2 for dimensions

Table 2

Shell size	ØA Max.	ØB +/- 0.10 Entry size		ØC	
		02	03	02	03
09	21.79	N/A	6.35	N/A	10.03
11	24.99	N/A	7.92	N/A	11.61
13	29.39	7.92	11.13	11.61	14.81
15	32.49	11.13	14.27	14.81	17.96
17	35.71	12.70	15.88	16.38	19.56
19	38.51	15.88	19.05	19.56	22.73
21	41.71	15.88	20.62	19.56	24.30
23	44.91	17.47	23.83	21.06	27.51
25	47.98	19.05	25.40	22.73	29.08

Dimensions in millimeters



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Connectors weight

	With contacts				Without contact			
	Plug (type 5)		Receptacle (type 0)		Plug (type 5)		Receptacle (type 0)	
	Male	Female	Male	Female	Male	Female	Male	Female
09-35	8.5	10.1	7.8	9.4	8.1	8.6	7.4	7.9
09-98	8.5	9.8	7.8	9.1	8.1	8.6	7.4	7.9
11-01	12.8	15.7	10.4	13.3	12.1	14.1	9.7	11.7
11-02	11.5	14.1	09.3	11.8	10.9	12.5	08.7	10.3
11-04	12.6	15.7	10.2	13.3	12.0	14.1	9.7	11.7
11-05	12.6	15.8	10.2	13.4	11.9	13.8	9.5	11.5
11-22	11.4	13.8	09.1	11.6	11.1	12.8	08.8	10.6
11-35	12.5	16.0	10.1	13.6	11.6	12.8	9.2	10.4
11-80	15.25	18.6	13.40	10.4	10.75	11.63	08.90	09.4
11-98	12.5	15.3	10.1	12.9	11.7	12.8	9.3	10.5
11-99	11.8	15.0	09.6	12.8	10.8	12.2	08.6	10.0
13-04	17.2	20.9	13.7	17.5	15.6	17.9	12.4	14.3
13-08	17.6	22.8	14.1	19.2	16.5	19.6	12.9	16.1
13-26	17.9	23.6	14.4	20.1	16.2	18.9	12.7	15.4
13-35	17.4	23.1	13.8	19.6	15.8	17.6	12.3	14.1
13-98	17.2	21.8	13.7	18.3	15.8	17.9	12.3	14.3
15-05	21.4	26.7	16.6	21.9	19.8	22.8	15.0	18.0
15-15	22.2	29.3	17.4	24.5	19.9	23.0	15.1	18.1
15-18	22.4	31.3	17.6	26.5	19.9	24.0	15.0	19.2
15-19	22.0	29.6	17.1	24.8	19.2	22.0	14.5	17.2
15-35	22.0	31.3	17.2	26.5	19.4	22.0	14.6	17.2
15-97	21.8	28.9	17.1	24.1	19.4	22.6	14.7	17.8
17-02	26.51	38.85	25.23	37.57	19.35	22.35	18.07	21.07
17-06	25.9	35.5	23.2	32.8	21.9	25.9	19.2	23.2
17-08	24.9	33.6	22.2	30.1	22.4	27.4	19.7	24.7
17-26	25.5	36.3	22.8	33.6	21.8	25.9	19.2	23.1
17-35	25.7	39.3	23.0	36.6	21.9	25.5	19.2	22.8
17-75	31.3	42.6	28.6	39.9	22.3	28.6	19.6	25.9
17-99	25.5	36.1	22.8	33.4	22.0	26.1	19.3	23.4
19-11	32.1	45.7	26.1	39.7	28.7	37.1	22.7	31.1
19-32	31.3	44.7	25.3	38.7	26.8	31.9	20.8	25.9
19-35	31.6	48.1	25.6	42.0	27.1	31.6	21.0	25.6
21-11	38.0	57.9	32.8	52.6	30.8	40.3	25.5	35.1
21-16	35.1	50.4	29.9	45.2	30.2	37.9	24.9	32.7
21-35	35.4	56.1	30.1	50.8	29.9	36.3	24.6	31.1
21-39	36.8	57.1	31.5	51.9	31.0	40.8	25.7	35.5
21-41	35.3	52.7	30.1	47.5	29.6	36.3	24.3	31.0
21-48	42.41	62.40	37.71	57.70	29.3	36.2	24.6	31.5
21-75	47.3	64.2	42.6	59.50	29.3	36.2	24.6	31.5
23-21	43.1	66.3	38.0	61.2	36.5	49.9	31.5	44.8
23-35	41.4	67.5	36.3	62.5	34.4	42.5	29.3	37.5
23-53	41.5	63.6	36.4	58.6	34.1	42.4	29.0	37.4
23-55	42.2	65.3	42.2	60.2	34.5	43.3	29.4	38.2
25-07	53.6	90.05	49.0	84.85	37.8	51.8	33.2	46.6
25-11	59.08	81.60	54.48	77.00	40.8	53.8	36.2	49.2
25-19	51.7	83.7	46.6	78.6	39.2	53.3	34.0	48.2
25-24	51.2	82.5	46.1	77.4	39.6	54.0	34.4	48.9
25-29	49.5	78.5	44.4	73.4	40.5	55.9	35.4	50.7
25-35	47.3	80.1	42.2	75.0	38.4	48.1	33.2	43.0
25-37	49.27	80.36	45.47	76.16	37.8	51.50	34.0	47.30
25-44	69.64	93.70	65.04	94.65	36.1	45.80	31.5	46.75
25-43	49.6	80.2	44.4	75.1	40.1	55.4	35.0	50.3
25-46	51.9	75.7	46.7	70.1	37.2	47.4	32.1	42.2
25-61	46.6	73.4	41.5	68.2	38.1	48.9	32.9	43.8
25-08	72.9	104.8	67.8	99.6	36.9	48.8	31.8	43.6
25-20	57.9	88.2	52.8	83.0	36.4	46.6	31.3	41.5
25-04	50.4	80.2	45.3	75.0	41.2	54.8	36.1	49.6