

8D Series

Standard Series

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Connector part numbers

Basic Series	8D	0	-	11	W	35	P	N			L
Shell style: 0: Square flange receptacle 1: In line receptacle 7: Jam nut receptacle 5: Plug with RFI shielding Also available: . Square flange receptacle with clinch nuts or helicoils (see page 126) . Jam nut receptacle with double flange (see page 129)											
Type: - : 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, #12). 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 contacts - please consult us . see page 134 for Reinforced sealing Series with solder cup contacts . see page 68 for solder cup contacts information											
Shell size: 09, 11, 13, 15, 17, 19, 21, 23, 25											
Plating: W: Olive drab cadmium F: Nickel ZC: Green zinc cobalt Z: Black zinc nickel											
Contact layout: See pages 13 to 19											
Contact type: P: Pin A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation) S: Socket B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation)											
Orientation: N, A, B, C, D, E (see page 75)											
Specification: 046: Tin plated PC tail contact SnPb (non RoHS) 046E: Tin plated PC tail contact Sn pure (RoHS) 046S: Tin plated PC tail contact SAC305 (RoHS) 251: Connector provided with power contacts (layouts with contact #8) 022: Fuel tank											
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											

Note: PC tail contacts without shoulder also available. Please see page 132.

MIL-DTL-38999 part numbers

Basic Series	D38999/	20	W	B	35	P	N	L
Shell style: 20: Square flange receptacle 24: Jam nut receptacle 26: Plug with RFI shielding.								
Plating: Z: Black zinc nickel W: Olive drab cadmium F: Nickel								
Shell size: A, B, C, D, E, F, G, H, J								
Contact layout: See page 18 for layout according to MIL-DTL-38999								
Contact type: P: Pin A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation) S: Socket B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation)								
Orientation: N, A, B, C, D, E (see page 75)								
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 specified clearly on the order (by adding a suffix L at the end of the P/N or specified in comment).

Delivered with MIL contacts mandatory.

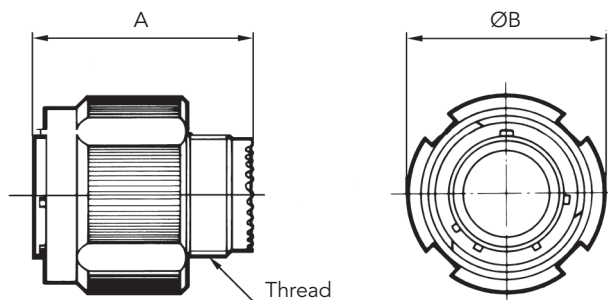
As stated in MIL-DTL-38999 standard, insert arrangements using multi-axial contacts (coax, twinax, quadax, ...) should not be used in firewall applications.

EN3645 part numbers

Basic Series	EN3645	W	6	G	N	35	B	N
Plating: W: Olive drab cadmium F: Nickel								
Shell style: 0: Square flange receptacle 6: Plug 7: Jam nut receptacle								
Shell size: 09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J								
Grounding: N: Standard insert not grounded								
Contact layout: See page 18 for layout according to EN3645								
Contact type: A: Connector supplied less pin contact B: Connector supplied less socket contact F: Socket M: Pin								
Orientation: N, A, B, C, D, E (see page 75)								

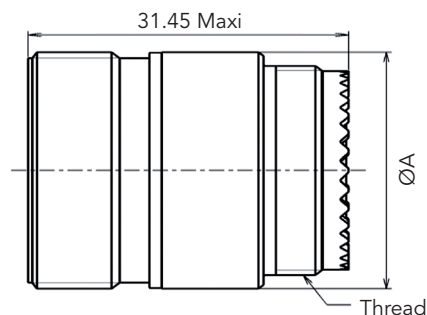
Dimensions

Plug type 5



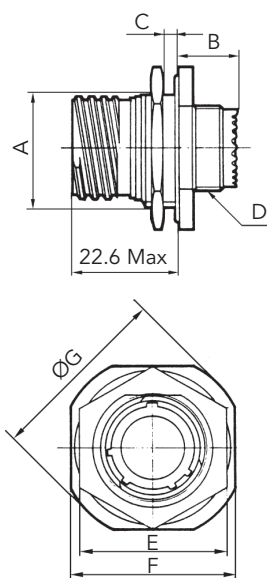
Shell size	A Max	Thread	ØB Max
09 (A)	31.00	M12 x 1-6g	21.80
11 (B)		M15 x 1-6g	25.00
13 (C)		M18 x 1-6g	29.40
15 (D)		M22 x 1-6g	32.50
17 (E)		M25 x 1-6g	35.70
19 (F)		M28 x 1-6g	38.50
21 (G)		M31 x 1-6g	41.70
23 (H)		M34 x 1-6g	44.90
25 (J)		M37 x 1-6g	48.00

Receptacle type 1



Shell size	Thread	ØA
09 (A)	M12 x 1-6g	15.90
11 (B)	M15 x 1-6g	19.00
13 (C)	M18 x 1-6g	22.25
15 (D)	M22 x 1-6g	25.45
17 (E)	M25 x 1-6g	30.20
19 (F)	M28 x 1-6g	31.75
21 (G)	M31 x 1-6g	34.95
23 (H)	M34 x 1-6g	38.10
25 (J)	M37 x 1-6g	41.30

Receptacle type 7



Shell size	A ^{±0.15}	B Max	C Max	D Thread	E Max	F ^{±0.4}	ØG Max
09 (A)	16.53	9.9	3.2	M12 x 1-6g	23	27	30.5
11 (B)	19.07			M15 x 1-6g	27	31.8	35.2
13 (C)	23.82			M18 x 1-6g	31	34.9	38.4
15 (D)	26.97			M22 x 1-6g	34	38.1	41.6
17 (E)	30.15			M25 x 1-6g	37	41.3	44.8
19 (F)	33.32			M28 x 1-6g	41	46	49.5
21 (G)	36.50			M31 x 1-6g	46	49.2	52.7
23 (H)	39.67			M34 x 1-6g	47	52.4	55.9
25 (J)	42.85			M37 x 1-6g	51.23	55.6	59

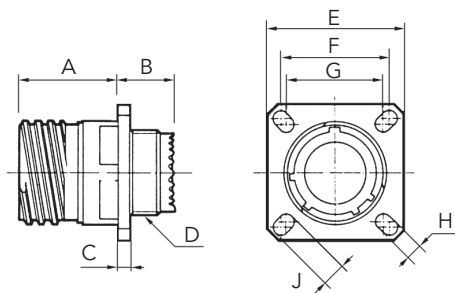
Recommended coupling torque on panel for jam nut receptacle (type 7)

Shell	09 (A)	11 (B)	13 (C)	15 (D)	17 (E)	19 (F)	21 (G)	23 (H)	25 (J)
Coupling torque (±0.5 N.m)	4	5	7	8	9	10	12	13	14

Note: All dimensions are in millimeters (mm)

Dimensions

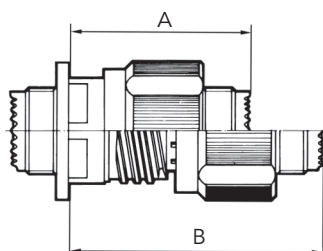
Receptacle type 0



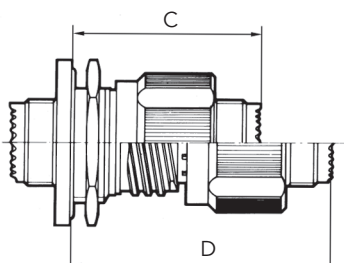
Shell size	A Max	B Max	C Max	D Thread	E±0.3	F	G	H±0.2	J±0.2
09 (A)	20.9	10.72	2.5	M12 x 1-6g	23.8	18.26	15.09	3.25	5.49
11 (B)				M15 x 1-6g	26.2	20.62	18.26		4.93
13 (C)				M18 x 1-6g	28.6	23.01	20.62		4.39
15 (D)				M22 x 1-6g	31	24.61	23.01		4.93
17 (E)				M25 x 1-6g	33.3	26.97	24.61		4.93
19 (F)	20.07	11.54	3.2	M28 x 1-6g	36.5	29.36	26.97	3.91	6.15
21 (G)				M31 x 1-6g	39.7	31.75	29.36		6.15
23 (H)				M34 x 1-6g	42.9	34.93	31.75		6.15
25 (J)				M37 x 1-6g	46	38.1	34.93		

Mated connectors

Type 0 with plug

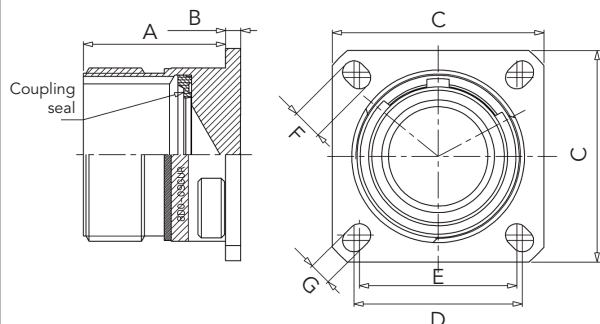


Type 7 with plug



Shell size	A Max	B Max	C Max	D Max
09 to 11	37.00	52.30	38.30	53.60
13 to 19	37.00	52.30	38.50	53.80
21 to 25	36.00	51.30	38.50	53.80

Dummy receptacle



Shell size	Part number	A Max	B Max	C±0.30	D	E	F±0.20	G±0.20
09	8D0-09•UR	20.90	2.50	23.80	18.26	15.09	4.49	3.25
11	8D0-11•UR	20.90	2.50	26.20	20.62	18.26	4.93	3.25
13	8D0-13•UR	20.90	2.50	28.60	23.01	20.62	4.93	3.25
15	8D0-15•UR	20.90	2.50	31.00	24.61	23.01	4.93	3.25
17	8D0-17•UR	20.90	2.50	33.30	26.97	24.61	4.93	3.25
19	8D0-19•UR	20.90	2.50	36.50	26.97	24.61	4.93	3.25
21	8D0-21•UR	20.10	3.20	39.70	31.75	29.36	4.93	3.25
23	8D0-23•UR	20.10	3.20	42.90	34.93	31.75	6.15	3.91
25	8D0-25•UR	20.10	3.20	46.00	38.10	34.93	6.15	3.91

•: "G" for Olive green cadmium; "F" for Nickel.

Note: All dimensions are in millimeters (mm)

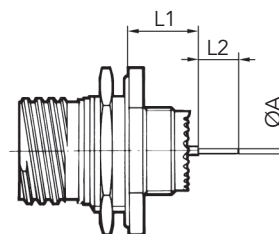
PC tail contacts lengths

	Contact size	Contact type		PC tail type	Shell size							
					09 (A)	11 (B)	13 (C)	15 (D)	17 (E)	19 (F)	21 (G)	23 (H)
ØA	#22D	M & F	Max	L & C	0.70							
		M & F	Max	S	0.50							
	#20	M & F	Max	C	0.70							
	#16	M & F	Max	C	1.15							
	#12	M & F	Max	C	2.00							
L1	#22D	M	Min	L & C	10.52		10.34					
		M	Max	L & C	11.46		11.28					
		F	Min	L & C	10.19		10.01					
		F	Max	L & C	11.46		11.28					
		M	Min	S	10.19		10.01					
		M	Max	S	11.46		11.28					
		F	Min	S	10.69		10.51					
		F	Max	S	11.63		11.45					
	#20	M	Min	C	10.36		10.18					
		M	Max	C	11.63		11.45					
		F	Min	C	10.69		10.51					
		F	Max	C	11.63		11.45					
	#16	M	Min	C	10.69		10.51					
		M	Max	C	11.63		11.45					
		F	Min	C	10.69		10.51					
		F	Max	C	11.63		11.45					
	#12	M	Min	C	10.63		10.45					
		M	Max	C	11.56		11.38					
		F	Min	C	10.63		10.45					
		F	Max	C	11.56		11.38					
L2	#22D	M & F	Max	L	8.50							
		M & F	Max	C	4.00							
		M & F	Max	S	5.10							
	#20	M & F	Max	C	5.10							
	#16	M & F	Max	C	5.10							
	#12	M & F	Max	C	5.10							
L3	#22D	M	Min	L & C	9.48						9.59	
		M	Max	L & C	10.58						10.69	
		F	Min	L & C	9.15						9.26	
		F	Max	L & C	10.58						10.69	
		M	Min	S	9.65						9.76	
		M	Max	S	10.75						10.86	
		F	Min	S	9.15						9.26	
		F	Max	S	10.75						10.86	
	#20	M	Min	C	9.65						9.76	
		M	Max	C	10.75						10.86	
		F	Min	C	9.65						9.76	
		F	Max	C	10.75						10.86	
	#16	M	Min	C	9.64						9.75	
		M	Max	C	10.75						10.86	
		F	Min	C	9.64						9.75	
		F	Max	C	10.75						10.86	
	#12	M	Min	C	10.25						9.95	
		M	Max	C	11.21						10.91	
		F	Min	C	10.25						9.95	
		F	Max	C	11.21						10.91	

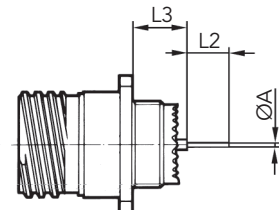
M: Male contact
F: Female contact

L: Long PC tail
C: Short PC tail
S: Specific PC tail

Receptacle type 7



Receptacle type 0



Note: All dimensions are in millimeters (mm)

Connectors weight - in gram (±15%)

Shell size & Layout		With contacts						Without contacts					
		Plug (type 5)		Receptacle (type 0)		Receptacle (type 7)		Plug (type 5)		Receptacle (type 0)		Receptacle (type 7)	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
09	35	11.47	13.05	9.15	10.73	13.91	15.49	11.05	11.55	8.73	9.23	13.49	13.99
	98	11.47	12.77	9.15	10.45	13.91	15.21	11.05	11.57	8.73	9.25	13.49	14.01
11	01	14.98	17.92	12.01	14.95	18.17	21.11	14.32	16.32	11.35	13.35	17.51	19.51
	02	14.61	17.15	11.64	14.18	17.80	20.34	13.99	15.59	11.02	12.62	17.18	18.78
	04	14.80	17.86	11.83	14.89	17.99	21.05	14.24	16.26	11.27	13.29	17.43	19.45
	05	14.83	18.04	11.86	15.07	19.48	21.23	14.13	16.04	11.16	13.07	17.32	19.23
	22	14.47	16.89	11.50	13.92	17.66	20.08	14.19	15.89	11.22	12.92	17.38	19.08
	35	14.73	18.20	11.76	15.30	17.68	21.39	13.82	14.95	10.85	12.05	17.01	18.14
	80	18.30	21.90	15.30	18.90	21.50	28.39	13.80	14.90	10.80	11.90	17.00	18.10
	98	14.70	17.46	11.73	14.49	17.89	20.65	13.86	15.06	10.89	12.09	17.05	18.25
	99	14.87	18.09	11.90	15.12	18.06	21.28	13.89	15.29	10.92	12.32	17.08	18.48
13	04	21.04	24.82	15.71	19.29	24.14	27.92	19.80	21.70	14.47	16.17	22.90	24.80
	08	21.42	26.60	16.09	21.27	24.52	29.70	20.30	23.40	14.97	18.07	23.40	26.50
	26	21.79	27.44	16.46	22.11	24.89	30.54	20.05	22.74	14.72	17.41	23.15	25.84
	35	21.22	26.99	15.89	21.46	24.32	30.09	19.68	21.49	14.35	15.96	22.78	24.59
	98	21.08	25.70	15.75	20.37	24.18	28.80	19.68	21.70	14.35	16.37	22.78	24.80
15	05	26.04	31.38	19.54	24.88	29.62	34.96	24.49	27.48	17.99	20.98	28.07	31.06
	15	26.84	34.00	20.34	27.22	30.42	37.58	24.57	27.62	18.07	20.84	28.15	31.20
	18	27.05	35.93	20.55	29.43	30.63	39.51	24.53	28.73	18.03	22.23	28.11	32.31
	19	26.58	34.31	20.08	27.81	30.16	37.89	23.92	26.71	17.42	20.21	27.50	30.29
	35	26.68	35.92	20.18	29.42	30.26	39.50	24.09	26.67	17.59	20.17	27.67	30.25
	97	26.51	33.56	20.01	27.06	30.09	37.14	24.15	27.24	17.65	20.74	27.73	30.82
17	02	32.96	46.30	31.26	44.60	42.06	55.40	25.80	29.80	24.10	28.10	34.90	38.90
	06	29.90	39.50	28.21	37.81	39.00	48.60	25.94	29.90	24.25	28.21	35.04	39.00
	08	28.89	37.62	27.20	35.93	37.99	46.72	26.41	31.38	24.72	29.69	35.51	40.48
	26	29.47	40.26	27.78	38.57	38.57	49.36	25.83	29.86	24.14	28.17	34.93	38.96
	35	29.71	43.26	28.02	41.57	38.81	52.36	25.86	29.51	24.17	27.82	34.96	38.61
	75	35.31	46.60	33.62	44.91	44.41	55.70	26.31	32.60	24.62	30.91	35.41	41.70
	99	29.52	40.08	27.83	38.39	38.62	49.18	25.96	30.12	24.27	28.43	35.06	39.22
19	11	37.77	51.36	31.07	44.66	44.62	58.21	34.36	42.78	27.66	46.43	30.86	49.63
	32	36.98	50.38	30.28	43.68	43.83	57.23	32.50	37.58	25.80	41.23	29.00	44.43
	35	37.29	53.74	30.59	47.04	44.14	44.09	32.67	37.24	25.97	40.89	29.17	44.09
21	11	45.51	65.35	39.31	59.05	53.19	73.03	38.25	47.75	32.05	41.45	35.55	55.43
	16	42.61	57.89	36.41	51.69	50.29	65.57	37.65	45.41	31.45	49.59	34.95	53.09
	35	42.89	63.55	36.69	57.25	50.57	71.23	37.36	43.80	31.16	37.50	34.66	51.48
	39	44.27	64.60	38.07	58.40	51.95	72.28	38.47	48.24	32.27	52.42	35.77	55.92
	41	42.81	60.18	36.61	64.36	50.49	67.86	37.07	43.78	30.87	47.96	34.37	51.46
	48	49.59	49.93	43.39	63.62	55.27	57.61	36.48	43.38	30.28	36.70	44.16	51.06
	75	54.48	71.38	48.28	65.18	62.16	79.06	36.48	43.38	30.28	37.18	44.16	51.06
23	21	50.49	73.74	44.19	67.44	59.23	82.48	43.98	57.36	37.68	62.20	41.58	66.10
	35	48.85	75.00	42.55	68.70	57.59	83.74	41.85	50.00	35.55	54.84	39.45	58.74
	53	48.91	71.10	42.61	64.80	57.65	79.84	41.49	49.90	35.19	54.74	39.09	58.64
	55	49.66	72.73	43.36	66.43	58.40	81.47	41.96	50.73	35.66	55.57	39.56	59.47
25	07	61.89	90.70	55.73	85.10	71.15	99.10	46.41	56.20	40.25	61.26	44.45	65.46
	11	54.48	71.38	48.28	79.90	62.16	79.06	36.48	43.38	42.94	56.60	58.36	71.36
	19	59.76	91.77	53.60	85.61	69.02	101.03	47.22	61.37	41.06	66.43	45.26	70.63
	24	59.26	90.62	53.10	84.46	68.52	99.88	47.62	62.06	41.46	67.12	45.66	71.32
	29	57.58	86.55	51.42	80.39	66.84	95.81	48.59	63.93	42.43	68.99	46.63	73.19
	35	55.37	88.20	49.21	82.04	64.63	97.46	46.41	56.20	40.25	61.26	44.45	65.46
	37	57.57	89.86	51.41	59.36	66.83	90.06	46.10	61.00	39.94	60.50	55.36	61.20
	44	52.80	67.61	46.53	65.39	62.05	83.39	44.40	59.22	38.14	57.00	53.66	75.00
	43	57.62	88.30	51.46	82.14	66.88	97.56	48.20	63.50	42.04	68.56	46.24	72.76
	46	59.92	83.76	53.76	77.60	69.18	93.02	45.28	55.44	39.12	60.50	43.32	64.70
	61	54.67	81.42	48.51	75.26	63.93	90.68	46.13	57.02	39.97	62.08	44.17	66.28
	08	81.00	112.83	74.84	106.67	90.26	122.09	45.00	56.83	38.84	61.69	43.04	66.09
	20	66.02	96.24	59.86	90.08	75.28	105.50	44.45	54.70	38.29	59.76	42.49	63.96
	04	58.42	88.27	52.26	82.11	67.68	97.53	49.22	62.83	43.06	67.89	47.26	72.09

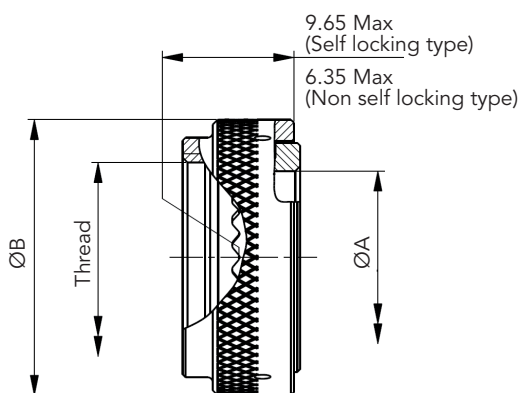
SOURIAU aluminum backshells

Ordering information

Basic Series	8D	AB	05	A	17	W	S	02	-
Accessories type									
Type:									
01: Backnut		04: Crimp ring							
02: Cable clamp		05: Band lock							
03: Shrink boot									
Angle:									
A: Straight									
B: 90° (Type 02 only)									
Shell size:									
09, 11, 13, 15, 17, 19, 21, 23, 25									
Finish:									
Z: Black zinc nickel									
W: Olive green cadmium									
F: Nickel									
A: Black anodized									
Self locking option:									
None									
S: Self locking (available for Types 01 & 02 - mandatory for Type 05)									
Cable entry (Type 05 only):									
02, 03 (03 mandatory for shell size 09 & 11)									
Drain hole option:									
None									
D: Drain hole (Type 03 only)									

Dimensions

Aluminum backshell Type 01 - Backnut

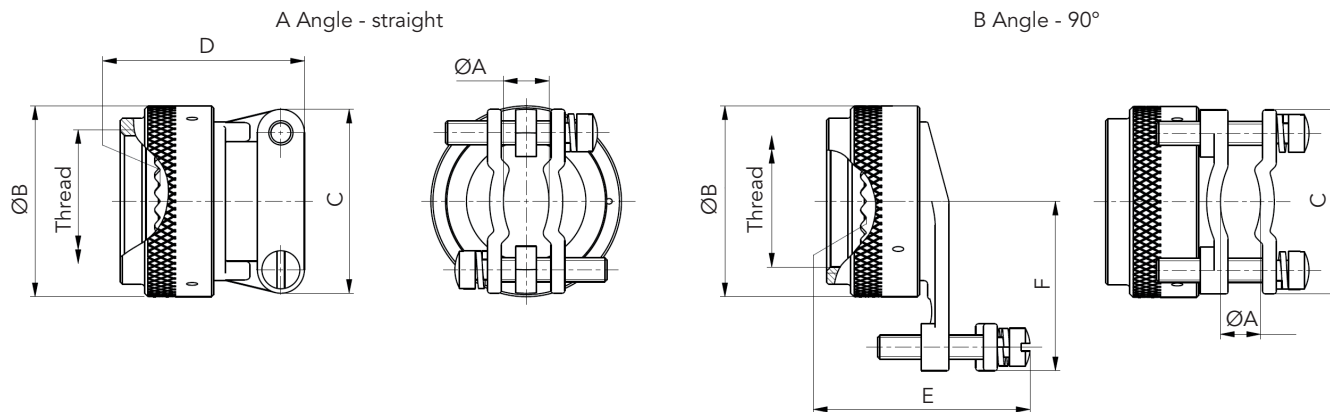


Shell size	ØA Min	ØB Max
09	6.7	17.9
11	9.95	20.9
13	12.85	24.3
15	17.0	27.9
17	19.25	31.3
19	21.7	35.3
21	24.7	38.1
23	27.8	41.5
25	32.0	44.5

Thread: See page 30 for information.

SOURIAU aluminum backshells

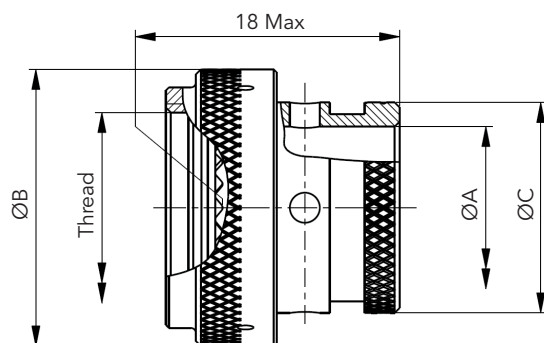
Aluminum backshell Type 02 - Cable clamp



Shell size	ØA		ØB Max	C Max	D Max	E Max	F Max
	Min	Max					
09	2.49	5.94	17.9	21.5	23.1	29.5	20
11	3.89	5.94	20.9	21.5	23.1	29.5	21.5
13	4.83	8.33	24.3	24.5	25.6	31.5	23.5
15	6.60	11.61	27.9	27.5	26.9	35.8	25.5
17	7.19	15.6	31.3	31.5	29.4	40.1	27.5
19	8.26	16.1	35.3	35.5	35.8	40.6	30.5
21	8.71	17.73	38.1	37	38.3	42.7	31.5
23	9.68	20.9	41.5	40.5	42.1	46.2	34.5
25	10.62	21.67	44.5	45	44.7	49	36.5

Thread: See page 30 for information.

Aluminum backshell Type 03 - Shrink boot

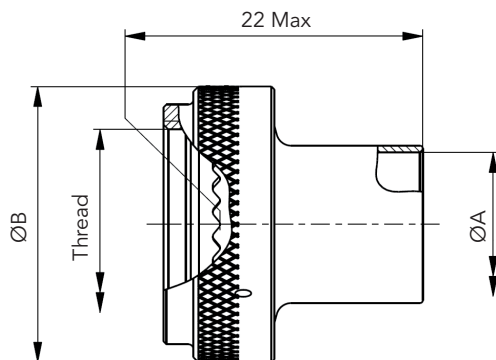


Shell size	ØA Min	ØB Max	C Max
09	6.7	19.0	11.3
11	9.95	21.5	14.9
13	12.85	25.3	17.8
15	16.05	29.1	21.27
17	19.2	31.7	24.3
19	21.5	35.5	26.4
21	24.7	39.3	30.8
23	27.8	41.8	34.1
25	31	46.9	36.6

Thread: See page 30 for information.

SOURIAU aluminum backshells

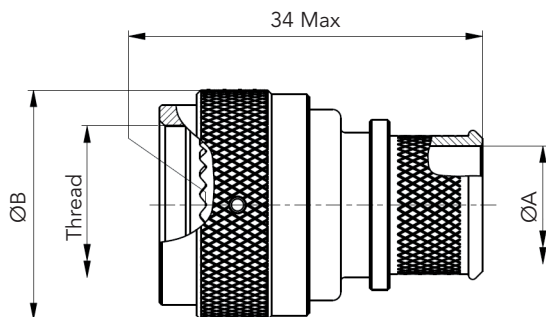
Aluminum backshell Type 04 - Crimp ring



Shell size	ØA Min	ØB Max
09	6	17.9
11	8.2	20.9
13	10.5	24.3
15	13.6	27.9
17	16.9	31.3
19	20	34.3
21	23.2	38.1
23	26.1	41.5
25	28.1	44.4

Thread: See below for information.

Aluminum backshell Type 05 - Band lock



Shell size	ØA Max - Entry size		ØB Max
	02	03	
09	-	6.6	17.9
11	-	8	24.9
13	8	11.2	29.3
15	11.2	14.4	32.4
17	12.8	16	35.6
19	16	19.1	38.4
21	16	20.7	41.6
23	17.6	23.9	44.8
25	19.1	25.5	47.9

Thread: See below for information.

Recommended installation torque

Shell Size	Installation Torque (Inch-Pounds)
09, 11, 13, 15, 17 & 19	40
21, 23 & 25	80

Note: Torque values are based on 80% of the coupling thread strength specified in SAE-AS85049 standard.

Thread information

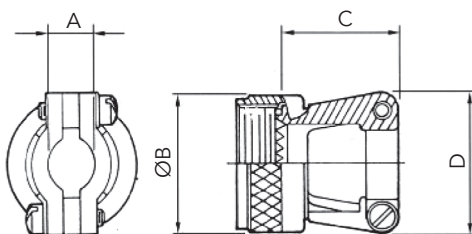
Shell size	Metric Thread
09	M12x1.0-6H-0.10R
11	M15x1.0-6H-0.10R
13	M18x1.0-6H-0.10R
15	M22x1.0-6H-0.10R
17	M25x1.0-6H-0.10R
19	M28x1.0-6H-0.10R
21	M31x1.0-6H-0.10R
23	M34x1.0-6H-0.10R
25	M37x1.0-6H-0.10R

Note: All dimensions are in millimeters (mm)

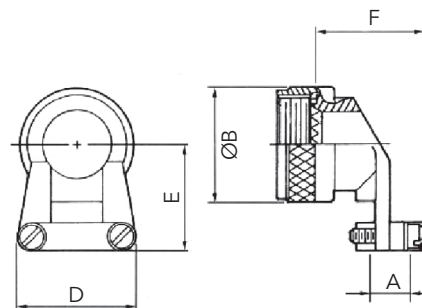
M85049 aluminum backshells

Backshells - Cable clamp

Straight cable clamp (Type 38)



90° cable clamp (Type 39)



Shell size	A		ØB Max	C Max	D Max	E	F
	Min	Max					
09	2.50	5.90	21.80	23.10	21.60	25.40	25.70
11	3.90	5.90	25.00	23.10	22.90	27.90	25.70
13	4.80	8.30	29.40	25.70	27.90	27.90	30.70
15	6.60	11.60	32.50	26.90	29.20	31.80	32.00
17	7.20	15.60	35.70	29.50	33.00	33.00	35.80
19	8.30	16.10	38.50	35.80	38.10	34.30	38.40
21	8.70	17.70	41.70	38.40	40.60	40.60	42.20
23	9.70	20.90	44.90	42.20	43.20	44.50	44.70
25	10.60	21.70	48.00	44.70	45.70	47.00	48.50

Basic Series

M85049

38

-

11

W

Backshell type:

38: Straight cable clamp

39: 90° cable clamp

Nut type:

- : Without self-locking

S: With self-locking

Shell size:

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

Plating:

Type 38 & 39:

A: Black anodized (500 hours salt spray)

W: Olive drab cadmium over nickel (500 hours salt spray)

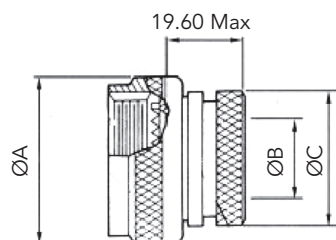
Type 38S & 39S:

W: Olive drab cadmium over nickel (500 hours salt spray)

N: Nickel (48 hours salt spray)

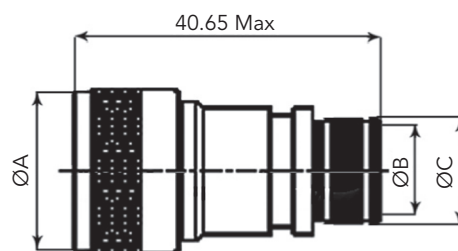
M85049 aluminum backshells

Backshells for heat shrink boots

Backshell for heat shrink boots
(Type 69)

Shell size	ØA Max	ØB Max	ØC Max
09	19.10	6.35	13.55
11	21.60	9.50	15.40
13	25.40	12.70	19.70
15	29.20	15.90	21.30
17	31.80	19.00	24.50
19	35.60	20.60	26.50
21	39.40	23.80	30.90
23	41.90	27.00	34.40
25	47.00	30.20	36.65

Straight backshell for EMI/RFI heat shrink boots (Type 88)



Shell size	ØA Max	ØB ^{±0.10} Entry size		ØC	
		02	03	02	03
09	21.79	-	6.35	-	10.03
11	24.99	-	7.92	-	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

Basic Series

M85049

69

11

A

D

Backshell type:

69: Backshell for heat shrink boots

88: Straight backshell for EMI/RFI heat shrink boots

Shell size:

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

Plating:

Type 69:

A: Black anodised (500 hours salt spray)

Type 88:

W: Olive drab cadmium

N: Nickel

Option (Type 69 only):

Empty: Without drain hole

D: With drain hole

Entry size (Type 88 only):

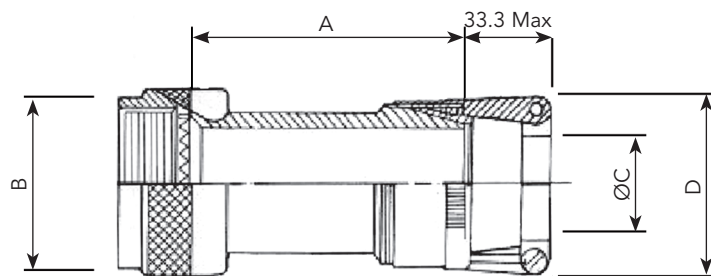
02: See table above

03: See table above

M85049 aluminum backshells

Backshell for screen termination and cable clamp

Backshell for screen termination and cable clamp (Type 19)



Shell size	A Max	B Max	Clamp indicator base on shell size
09	38.10	19.10	01 - 02
11		21.60	01 - 02 - 03
13		25.40	02 - 03 - 04
15		27.90	02 - 03 - 04 - 05
17		31.80	02 - 03 - 04 - 05 - 06
19		35.60	03 - 04 - 05 - 06 - 07
21		38.10	03 - 04 - 05 - 06 - 07 - 08
23		41.90	03 - 04 - 05 - 06 - 07 - 08
25		44.50	04 - 05 - 06 - 07 - 08 - 10

Clamp size indicator	C		D
	Min	Max	
01	1.60	3.20	20.30
02	3.20	6.35	25.40
03	6.35	9.50	27.90
04	7.90	12.70	30.50
05	11.10	15.90	31.80
06	14.30	19.00	35.60
07	17.45	22.20	38.10
08	20.60	24.40	41.90
09	23.80	28.60	44.50
10	27.00	31.75	48.30

Basic Series M85049 19 11 W 03

Shell style:

19: Backshell for screen termination and cable clamp

Shell size: 09, 11, 13, 15, 17, 19, 21, 23, 25

Plating:

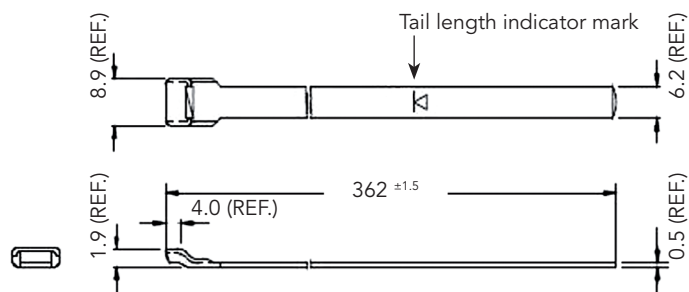
W: Olive drab cadmium

N: Nickel

Clamp size indicator: See tables above

Band-it

	Flat stainless steel standard band	Pre-coiled stainless steel standard band	Hand banding tool
Part number	M85049/128-3	M85049/128-4	8599-9346



Note: All dimensions are in millimeters (mm)

Aluminum caps

SOURIAU part number

Basic Series	8D	AC	5	R	09	W
AC: Aluminum caps						
Caps style:						
5: Plug caps						
0: Receptacle caps						
Accessories						
N: With stainless steel rope and ring						
R: With stainless steel rope and eyelet						
Shell size: 09, 11, 13, 15, 17, 19, 21, 23, 25						
Finish						
W: Olive drab cadmium						
F: Nickel						
Z: Black zinc nickel						
A: Black anodized						

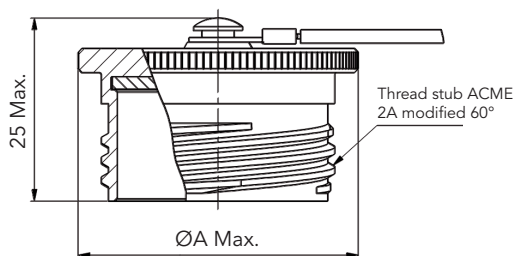
MIL-DTL-38999 part number

Basic Series	D38999 /	32	W	09	R
Caps style					
32: Plug caps					
33: Receptacle caps					
Finish					
W: Olive drab cadmium					
F: Nickel					
Z: Black zinc nickel					
Shell size: 09, 11, 13, 15, 17, 19, 21, 23, 25					
Accessories					
N: With stainless steel rope and ring					
R: With stainless steel rope and eyelet					

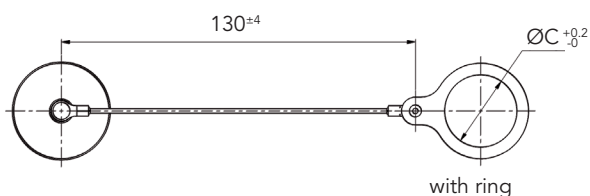
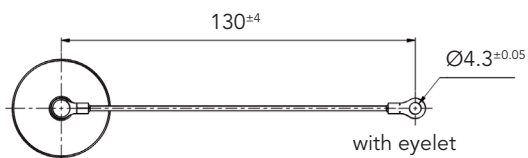
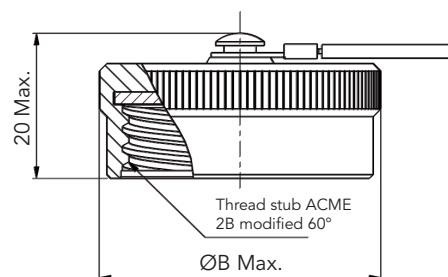
Dimensions

Aluminum caps with stainless steel rope

For plug



For receptacle



Size	ØA	ØB	ØC for plug	ØC for receptacle	Thread
09	22.6	22.8	15	18.4	0.6250-0.1P-0.3L-TS
11	25.8	26.5	18.4	23.2	0.7500-0.1P-0.3L-TS
13	30	30	23.2	26.5	0.8750-0.1P-0.3L-TS
15	33	31.8	23.2	30.3	1.0000-0.1P-0.3L-TS
17	36.5	36.8	26.5	32.6	1.1875-0.1P-0.3L-TS
19	39.2	38.8	30.3	36.5	1.2500-0.1P-0.3L-TS
21	42.5	41.8	32.6	39.3	1.3750-0.1P-0.3L-TS
23	45.8	44.8	36.5	42.9	1.5000-0.1P-0.3L-TS
25	48.9	48.8	39.3	45	1.6250-0.1P-0.3L-TS

Note: All dimensions are in millimeters (mm)

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:											
- : 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, #12).											
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 contacts - see page 69, 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 pages 13 to 19											
Contact type:											
P: Pin (500 mating/unmating)											
H: Pin (1500 mating/unmating)											
A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation)											
S: Socket (500 mating/unmating)											
J: Socket (1500 mating/unmating)											
B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation)											
Orientation: N, A, B, C, D, E, T, V (see page 75)											
Specification:											
046: Tin plated PC tail contact SnPb											
046E: Tin plated PC tail contact Sn pure											
046S: Tin plated PC tail contact SAC305											
251: Connector provided with power contacts (layouts with contact #8)											
022: Fuel tank											
600: 230V qualified connector (T or V orientation mandatory - Consult us for available layouts)											
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.											

Note: PC tail contacts without shoulder also available. Please see page 132.

BACC part numbers

Basic Series:	BACC63CT	13	-	98	P	N	H
BACC63CT: 8D5*M (composite plug)							
BACC63CU: 8D0*M (composite square flange receptacle)							
Shell size: 09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J							
Plating & grounding:							
- : Nickel plated, ungrounded							
G: Nickel plated, grounded							
D: Cadmium plated, ungrounded							
C: Cadmium plated, grounded							
Contact layout: See page 18 for layout according to BACC							
Contact type:							
P: Pin							
S: Socket							
Orientation: N, A, B, C, D, E (see page 75)							
Specification:							
None: With contacts							
H: Without contact & without filler plug							

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: 09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J								
Contact layout: See page 18 for layout according to MIL-DTL-38999								
Contact type: P: Pin (500 mating/unmating) H: Pin (1500 mating/unmating) A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation) S: Socket (500 mating/unmating) J: Socket (1500 mating/unmating) B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation)								
Orientation: N, A, B, C, D, E (see page 75)								
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 specified clearly on the order (by adding a suffix L at the end of the P/N or specified in comment).

Delivered with MIL contacts mandatory.

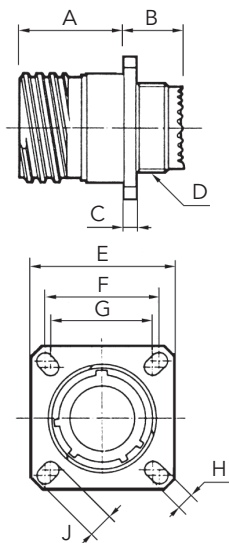
As stated in MIL-DTL-38999 standard, insert arrangements using multi-axial contacts (coax, twinax, quadax, ...) should not be used in firewall applications.

EN3645 part numbers

Basic Series	EN3645	J	6	G	N	35	B	N
Plating: J: Olive drab cadmium M: Nickel								
Shell style: 0: Square flange receptacle 6: Plug								
Shell size: 09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J								
Grounding: N: Standard insert not grounded								
Contact layout: See page 18 for layout according to EN3645								
Contact type: A: Connector supplied less pin contact B: Connector supplied less socket contact F: Socket M: Pin								
Orientation: N, A, B, C, D, E (see page 75)								

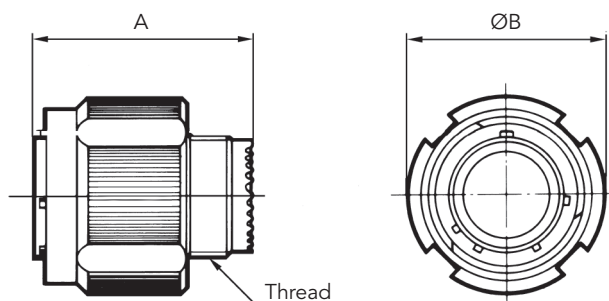
Dimensions

Receptacle type 0



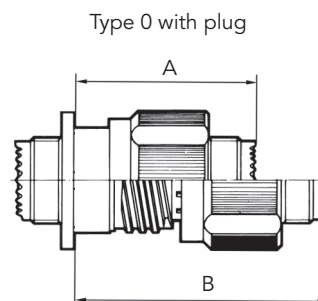
Shell size	A Max	B Max	C Max	D Thread	E ± 0.3	F	G	H ± 0.2	J ± 0.2
09 (A)	19.65	11.96	3.65	M12 x 1-6g	23.8	18.26	15.09	3.25	5.49
11 (B)				M15 x 1-6g	26.2	20.62	18.26		4.93
13 (C)				M18 x 1-6g	28.6	23.01	20.62		4.39
15 (D)				M22 x 1-6g	31	24.61	23.01		4.39
17 (E)				M25 x 1-6g	33.3	26.97	24.61		4.93
19 (F)	18.85	12.76	3.7	M28 x 1-6g	36.5	29.36	26.97	3.91	6.15
21 (G)			4.35	M31 x 1-6g	39.7	31.75	29.36		
23 (H)			4.4	M34 x 1-6g	42.9	34.93	31.75		
25 (J)				M37 x 1-6g	46	38.1	34.93		

Plug type 5



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

Mated connectors



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

Note: All dimensions are in millimeters (mm)

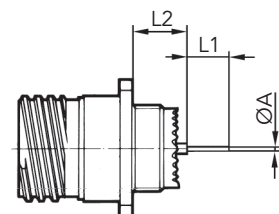
PC tail contacts lengths

	Contact size	Contact type		PC tail type	Shell size							
					09 (A)	11 (B)	13 (C)	15 (C)	17 (E)	19 (F)	21 (G)	23 (H)
ØA	#22D	M & F	Max	L & C	0.70							
		M & F	Max	S	0.50							
	#20	M & F	Max	C	0.70							
	#16	M & F	Max	C	1.15							
	#12	M & F	Max	C	2.00							
L1	#22D	M & F	Max	L	8.50							
		M & F	Max	C	4.00							
		M & F	Max	S	5.10							
	#20	M & F	Max	C	5.10							
	#16	M & F	Max	C	5.10							
	#12	M & F	Max	C	5.10							
L2	#22D	M	Min	L & C	9.48				9.59			
		M	Max	L & C	10.38				10.48			
		F	Min	L & C	9.15				9.26			
		F	Max	L & C	10.38				10.48			
		M	Min	S	9.65				9.76			
		M	Max	S	10.55				10.65			
		F	Min	S	9.32				9.42			
	#20	F	Max	S	10.55				10.65			
		M	Min	C	9.65				9.76			
		M	Max	C	10.55				10.65			
		F	Min	C	9.65				9.76			
	#16	F	Max	C	10.55				10.65			
		M	Min	C	9.65				9.76			
		M	Max	C	10.55				10.65			
		F	Min	C	9.65				9.76			
	#12	F	Max	C	10.55				10.65			
		M	Min	C	9.66				9.76			
		M	Max	C	10.53				10.63			
		F	Min	C	9.66				9.76			
			F	Max	C	10.53				10.63		

M: Male contact
F: Female contact

L: Long PC tail
C: Short PC tail
S: Specific PC tail

Receptacle type 0



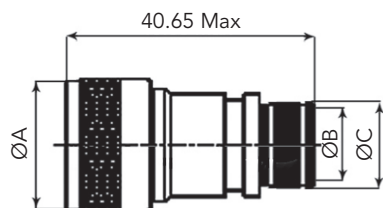
Connectors weight - in gram (±15%)

Shell size & Layout		With contacts				Without contacts			
		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
	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
	02	11.5	14.1	09.3	11.8	10.9	12.5	8.7	10.3
	04	12.6	15.7	10.2	13.3	12.0	14.1	9.7	11.7
	05	12.6	15.8	10.2	13.4	11.9	13.8	9.5	11.5
	22	11.4	13.8	9.1	11.6	11.1	12.8	8.8	10.6
	35	12.5	16.0	10.1	13.61	11.6	12.8	9.2	10.36
	80	15.2	18.6	13.4	10.4	10.7	11.6	8.9	9.4
	98	12.5	15.3	10.1	12.9	11.7	12.8	9.3	10.5
	99	11.8	15.0	9.6	12.8	10.8	12.2	8.6	10.0
13	04	17.2	20.9	13.7	17.44	15.6	17.9	12.4	14.32
	08	17.6	22.8	14.1	19.2	16.5	19.6	12.9	16.1
	26	17.9	23.6	14.4	20.1	16.2	18.9	12.7	15.4
	35	17.4	23.1	13.8	19.61	15.8	17.6	12.3	14.11
	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	22.2	29.3	17.4	24.51	19.9	23.0	15.1	18.13
	18	22.4	31.3	17.6	26.5	19.9	24.0	15.0	19.2
	19	22.0	29.6	17.1	24.8	19.2	22.0	14.5	17.2
	35	22.0	31.3	17.2	26.5	19.4	22.0	14.6	17.2
	97	21.8	28.9	17.1	24.1	19.4	22.6	14.7	17.8
17	02	26.5	38.8	25.2	37.6	19.3	22.3	18.1	21.1
	06	25.9	35.5	23.2	32.8	21.9	25.9	19.2	23.2
	08	24.9	33.6	22.2	30.1	22.4	27.4	19.7	24.7
	26	25.5	36.3	22.8	33.6	21.8	25.9	19.2	23.1
	35	25.7	39.3	23.0	36.6	21.9	25.5	19.2	22.8
	75	31.3	42.6	28.6	39.9	22.3	28.6	19.6	25.9
19	99	25.5	36.1	22.8	33.4	22.0	26.1	19.3	23.4
	11	32.1	45.7	26.1	39.7	28.7	37.1	22.7	31.1
	32	31.3	44.7	25.3	38.7	26.8	31.9	20.8	25.9
21	35	31.6	48.1	25.6	42.0	27.1	31.6	21.0	25.6
	11	38.0	57.9	32.8	52.62	30.8	40.3	25.5	35.02
	16	35.1	50.4	29.9	45.2	30.2	37.9	24.9	32.7
	35	35.4	56.1	30.1	50.82	29.9	36.3	24.6	31.07
	39	36.8	57.1	31.5	51.9	31.0	40.8	25.7	35.5
	41	35.3	52.7	30.1	47.5	29.6	36.3	24.3	31.0
	48	42.4	62.4	37.7	57.19	29.3	36.2	24.6	30.27
23	75	47.3	64.2	42.6	59.50	29.3	36.2	24.6	31.5
	21	43.1	66.3	38.0	61.2	36.5	49.9	31.5	44.8
	35	41.4	67.5	36.3	62.5	34.4	42.5	29.3	37.5
	53	41.5	63.6	36.4	58.6	34.1	42.4	29.0	37.4
25	55	42.2	65.3	42.2	60.2	34.5	43.3	29.4	38.2
	07	53.6	90.05	49.0	84.8	37.8	51.8	33.2	46.6
	11	59.1	81.6	54.5	72.79	40.8	53.8	36.2	49.49
	19	51.7	83.7	46.6	78.6	39.2	53.3	34.0	48.2
	24	51.2	82.5	46.1	77.4	39.6	54.0	34.4	48.9
	29	49.5	78.5	44.4	73.4	40.5	55.9	35.4	50.7
	35	47.3	80.1	42.2	75.0	38.4	48.1	33.2	43.0
	37	49.3	80.4	45.5	76.2	37.8	51.5	34.0	47.3
	44	69.6	93.7	65.0	94.6	36.1	45.8	31.5	46.7
	43	49.6	80.2	44.4	75.1	40.1	55.4	35.0	50.3
	46	51.9	75.7	46.7	70.1	37.2	47.4	32.1	42.2
	61	46.6	73.4	41.5	68.2	38.1	48.9	32.9	43.8
	08	72.9	104.8	67.8	99.6	36.9	48.8	31.8	43.6
	20	57.9	88.2	52.8	83.0	36.4	46.6	31.3	41.5
	04	50.4	80.2	45.3	75.0	41.2	54.8	36.1	49.6

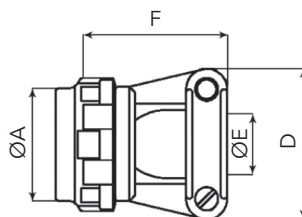
M85049 composite backshells

Dimensions & Ordering

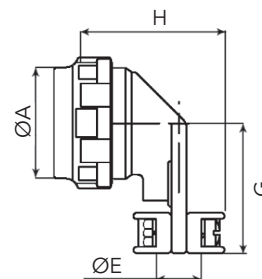
Straight backshell for EMI/RFI heat shrink boots (Type 88)



Straight cable clamp (Type 91)



90° cable clamp (Type 92)



Shell size	ØA Max	ØB ^{±0.10} Entry size		ØC Entry size		D Max	E Max	F Max	G	H
		02	03	02	03					
09	21.80	N/A	6.35	N/A	10.03	24.90	5.55	21.25	22.20	26.95
11	25.00	N/A	7.92	N/A	11.61	26.00	6.70	24.30	23.80	27.95
13	29.40	7.92	11.13	11.61	14.81	30.50	8.75	27.95	26.20	30.00
15	32.50	11.13	14.27	14.81	17.96	33.00	11.70	27.95	28.60	33.00
17	35.70	12.70	15.88	16.38	19.56	36.10	13.85	31.25	33.30	35.05
19	38.50	15.88	19.05	19.56	22.73	38.60	15.60	35.80	34.95	36.85
21	41.70	15.88	20.62	19.56	24.30	41.65	17.75	38.35	38.10	39.15
23	44.90	17.47	23.83	21.06	27.51	45.00	19.80	42.15	41.30	41.15
25	48.00	19.05	25.40	22.73	29.08	48.00	21.60	44.70	44.45	42.95

Basic Series

M85049

91

11

M

Backshell type:

88: Straight backshell for EMI/RFI heat shrink boots

91: Straight cable clamp

92: 90° cable clamp

Shell size:

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

Plating:

J: Olive drab cadmium over electroless nickel

M: Electroless nickel

T: Without plating (Type 91 & 92 only)

Entry size (Type 88 only):

02: See table above

03: See table above

Connector part numbers

Basic Series	8D	0	-	11	K	35	P	N		L
Shell style:										
0: Square flange receptacle										
7: Jam nut receptacle										
5: Plug with RFI shielding										
Type:										
- : 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, #12)										
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 contacts - see page 68, please consult us										
Shell size: 09, 11, 13, 15, 17, 19, 21, 23, 25										
Plating:										
K: Passivated										
S: Nickel										
Contact layout: See pages 13 to 19										
Contact type:										
P: Pin										
A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation)										
S: Socket										
B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation)										
Orientation: N, A, B, C, D, E, T, V (see page 75)										
Specification:										
046: Tin plated PC tail contact SnPb (non RoHS)										
046E: Tin plated PC tail contact Sn pure (RoHS)										
046S: Tin plated PC tail contact SAC305 (RoHS)										
251: Connector provided with power contacts (layouts with contact #8)										
022: Fuel tank										
600: 230V qualified connector (T or V orientation mandatory - Consult us for available layouts)										
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.										

Note: PC tail contacts without shoulder also available. Please see page 132.

8DV plug with reinforced locking available. Please see page 122.

BACC part numbers

Basic Series:	BACC63DB	13	-	98	P	N	H
BACC63DB: 8D5*K (stainless steel plug)							
BACC63DC: 8D0*K (stainless steel square flange receptacle)							
Shell size:							
09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J							
- : Separator (mandatory)							
Contact layout:							
See page 18 for layout according to BACC							
Contact type:							
P: Pin							
S: Socket							
Orientation:							
N, A, B, C, D, E (see page 75)							
Specification:							
None: With contacts							
H: Without contact & without filler plug							

MIL-DTL-38999 part numbers

Basic Series	D38999/	20	K	B	35	P	N	L
Shell style: 20: Square flange receptacle 24: Jam nut receptacle 26: Plug with RFI shielding								
Plating: K: Passivated S: Nickel								
Shell size: 09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J								
Contact layout: See page 18 for layout according to MIL-DTL-38999								
Contact type: P: Pin A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation) S: Socket B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation)								
Orientation: N, A, B, C, D, E (see page 75)								
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).

Delivered with MIL contacts mandatory.

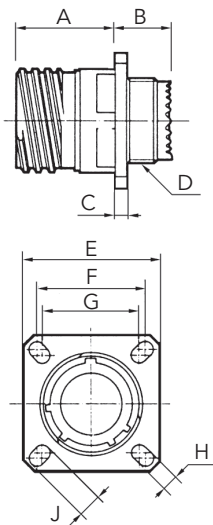
As stated in MIL-DTL-38999, class K connectors with #8 cavities may not meet the firewall requirement.

EN3645 part numbers

Basic Series	EN3645	K	6	G	N	35	B	N
Plating: K: Stainless steel passivated								
Shell style: 0: Square flange receptacle 6: Plug 7: Jam nut receptacle								
Shell size: 09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J								
Grounding: N: Standard insert not grounded								
Contact layout: See page 18 for layout according to EN3645								
Contact type: A: Connector supplied less pin contact B: Connector supplied less socket contact F: Socket M: Pin								
Orientation: N, A, B, C, D, E (see page 75)								

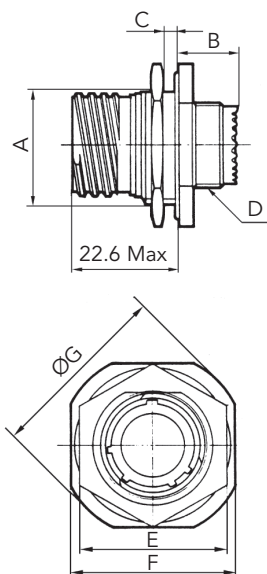
Dimensions

Receptacle type 0 (8D) or type 20 (D38999)



Shell size	A Max	B Max	C Max	D Thread	E ± 0.3	F	G	H ± 0.2	J ± 0.2
09 (A)	20.2	11.4	2.5	M12 x 1-6g	23.8	18.26	15.09	3.25	5.49
11 (B)				M15 x 1-6g	26.2	20.62	18.26		4.93
13 (C)				M18 x 1-6g	28.6	23.01	20.62		4.39
15 (D)				M22 x 1-6g	31	24.61	23.01		4.93
17 (E)				M25 x 1-6g	33.3	26.97	24.61		4.93
19 (F)				M28 x 1-6g	36.5	29.36	26.97		4.93
21 (G)	19.8	11.8	3.2	M31 x 1-6g	39.7	31.75	29.36	3.91	6.15
23 (H)				M34 x 1-6g	42.9	34.93	31.75		
25 (J)				M37 x 1-6g	46	38.1	34.93		

Receptacle type 7 (8D) or type 24 (D38999)



Shell size	A ± 0.15	B Max	C Max	D Thread	E Max	F ± 0.4	ØG Max
09 (A)	16.53	9.9	3.2	M12 x 1-6g	23	27	30.5
11 (B)	19.07			M15 x 1-6g	26	31.8	35.2
13 (C)	23.82			M18 x 1-6g	31	34.9	38.4
15 (D)	26.97			M22 x 1-6g	34	38.1	41.6
17 (E)	30.15			M25 x 1-6g	37	41.3	44.8
19 (F)	33.32			M28 x 1-6g	41	46	49.5
21 (G)	36.50			M31 x 1-6g	46	49.2	52.7
23 (H)	39.67			M34 x 1-6g	47	52.4	55.9
25 (J)	42.85			M37 x 1-6g	51.23	55.6	59

Recommended coupling torque on panel for jam nut receptacle (type 7)

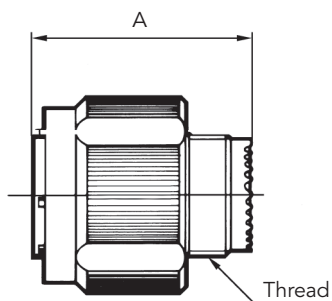
Shell	09 (A)	11 (B)	13 (C)	15 (D)	17 (E)	19 (F)	21 (G)	23 (H)	25 (J)
Coupling torque (± 0.5 N.m)	4	5	7	8	9	10	12	13	14

Note: All dimensions are in millimeters (mm)

Dimensions

Plug type 5 (8D) or type 26 (D38999)

8D type 5 & D38999 type 26

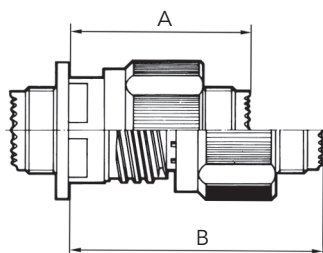


Shell size	A Max	Thread	ØB Max
09 (A)	31.00	M12 x 1-6g	21.80
11 (B)		M15 x 1-6g	25.00
13 (C)		M18 x 1-6g	29.40
15 (D)		M22 x 1-6g	32.50
17 (E)		M25 x 1-6g	35.70
19 (F)		M28 x 1-6g	38.50
21 (G)		M31 x 1-6g	41.70
23 (H)		M34 x 1-6g	44.90
25 (J)		M37 x 1-6g	48.00

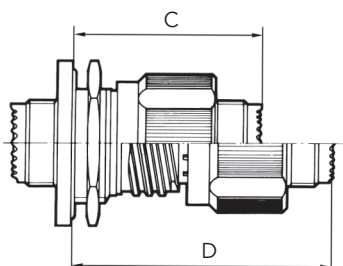
8DV plug with reinforced locking available. Please see page 122.

Mated connectors dimensions

Type 0 with plug



Type 7 with plug



Shell size	A Max	B Max	C Max	D Max
09 (A)	37.00	52.30	38.30	53.60
11 (B)			38.50	53.80
13 (C)				
15 (D)				
17 (E)				
19 (F)				
21 (G)	36.00	51.30		
23 (H)				
25 (J)				

Note: All dimensions are in millimeters (mm)

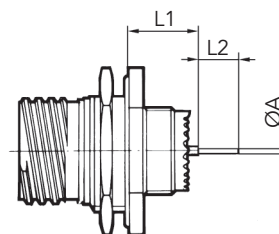
PC tail contacts lengths

	Contact size	Contact type		PC tail type	Shell size							
					09 (A)	11 (B)	13 (C)	15 (C)	17 (E)	19 (F)	21 (G)	23 (H)
ØA	#22D	M & F	Max	L & C	0.70							
		M & F	Max	S	0.50							
	#20	M & F	Max	C	0.70							
	#16	M & F	Max	C	1.15							
	#12	M & F	Max	C	2.00							
L1	#22D	M	Min	L & C	10.52		10.34					
		M	Max	L & C	11.46		11.28					
		F	Min	L & C	10.19		10.01					
		F	Max	L & C	11.46		11.28					
		M	Min	S	10.19		10.01					
		M	Max	S	11.46		11.28					
		F	Min	S	10.69		10.51					
		F	Max	S	11.63		11.45					
	#20	M	Min	C	10.36		10.18					
		M	Max	C	11.63		11.45					
		F	Min	C	10.69		10.51					
		F	Max	C	11.63		11.45					
	#16	M	Min	C	10.69		10.51					
		M	Max	C	11.63		11.45					
		F	Min	C	10.69		10.51					
		F	Max	C	11.63		11.45					
	#12	M	Min	C	10.63		10.45					
		M	Max	C	11.56		11.38					
		F	Min	C	10.63		10.45					
		F	Max	C	11.56		11.38					
L2	#22D	M & F	Max	L	8.50							
		M & F	Max	C	4.00							
		M & F	Max	S	5.10							
	#20	M & F	Max	C	5.10							
	#16	M & F	Max	C	5.10							
	#12	M & F	Max	C	5.10							
L3	#22D	M	Min	L & C	9.48						9.59	
		M	Max	L & C	10.58						10.69	
		F	Min	L & C	9.15						9.26	
		F	Max	L & C	10.58						10.69	
		M	Min	S	9.65						9.76	
		M	Max	S	10.75						10.86	
		F	Min	S	9.15						9.26	
		F	Max	S	10.75						10.86	
	#20	M	Min	C	9.65						9.76	
		M	Max	C	10.75						10.86	
		F	Min	C	9.65						9.76	
		F	Max	C	10.75						10.86	
	#16	M	Min	C	9.64						9.75	
		M	Max	C	10.75						10.86	
		F	Min	C	9.64						9.75	
		F	Max	C	10.75						10.86	
	#12	M	Min	C	10.25						9.95	
		M	Max	C	11.21						10.91	
		F	Min	C	10.25						9.95	
		F	Max	C	11.21						10.91	

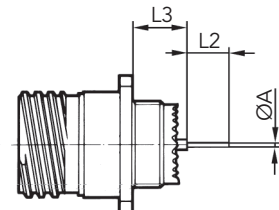
M: Male contact
F: Female contact

L: Long PC tail
C: Short PC tail
S: Specific PC tail

Receptacle type 7



Receptacle type 0



Note: All dimensions are in millimeters (mm)

Connectors weight - in gram (±15%)

Shell size & Layout		With contacts								Without contacts							
		Plug 8D (type 5)		Plug 8DV (type 5)		Recep. (type 0)		Recep. (type 7)		Plug 8D (type 5)		Plug 8DV (type 5)		Recep. (type 0)		Recep. (type 7)	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
09	35	30.63	32.21	32.53	34.11	23.93	25.51	33.93	35.51	30.21	30.71	32.11	32.61	23.51	24.01	33.51	34.01
	98	30.63	31.93	32.53	33.83	23.93	25.23	33.93	35.23	30.21	30.73	32.11	32.63	23.51	24.03	33.51	34.03
11	01	38.13	41.07	41.53	44.47	29.53	32.47	42.43	45.37	37.47	39.47	40.87	42.87	28.87	30.87	41.77	43.77
	02	37.76	40.30	41.16	43.70	39.36	30.12	46.98	49.52	37.14	38.74	40.54	42.14	28.56	30.16	46.36	47.96
	04	37.95	41.01	41.35	44.41	29.35	32.41	42.25	45.31	37.39	39.41	40.79	42.81	28.79	30.81	41.69	43.71
	05	37.98	41.19	41.38	44.59	29.38	32.59	42.04	45.49	37.28	39.19	40.68	42.59	28.68	30.59	41.58	43.49
	22	37.48	39.54	40.88	42.94	28.90	30.86	46.70	48.76	37.34	39.04	40.74	42.44	28.76	30.36	46.56	48.26
	35	37.88	41.35	41.28	44.75	29.28	32.75	41.94	45.65	36.97	38.10	40.37	41.50	28.37	29.50	41.27	42.40
	80	38.12	44.84	41.52	48.24	29.73	36.26	47.78	54.06	34.86	37.84	38.26	41.24	26.45	29.26	44.51	47.06
	98	37.85	40.61	41.25	44.01	29.25	32.01	42.15	44.91	37.01	38.21	40.41	41.61	28.41	29.61	41.31	42.51
	99	38.02	41.24	41.42	44.64	29.44	32.66	47.24	50.46	37.04	38.44	40.44	41.84	28.46	29.86	46.26	47.66
13	04	53.34	57.12	56.64	60.42	37.94	41.72	56.24	60.02	52.10	54.00	55.40	57.30	36.70	38.60	55.00	56.90
	08	53.72	58.90	57.02	62.20	38.32	43.50	56.62	61.80	52.60	55.70	55.90	59.00	37.20	40.30	55.50	58.60
	26	54.09	59.74	57.39	63.04	38.69	44.34	56.99	62.64	52.35	55.04	55.65	58.34	36.95	39.64	55.25	57.94
	35	53.52	59.29	56.82	62.59	38.12	43.89	56.42	62.19	51.98	53.79	55.28	57.09	36.58	38.39	54.88	56.69
	98	53.38	58.00	56.68	61.30	37.98	42.60	56.28	60.90	51.98	54.00	55.28	57.30	36.58	38.60	54.88	56.90
15	05	64.49	69.83	68.49	73.83	45.69	51.03	67.59	72.93	62.94	65.93	66.94	69.93	44.14	47.13	66.04	69.03
	15	65.29	72.45	69.29	76.45	46.49	53.65	68.39	75.55	63.02	66.07	67.02	70.07	44.22	47.27	66.12	69.17
	18	65.50	74.38	69.50	78.38	46.70	55.58	68.60	77.48	62.98	67.18	66.98	71.18	44.18	48.38	66.08	70.28
	19	65.03	72.76	69.03	76.76	46.23	53.96	68.13	75.86	62.37	65.16	66.37	69.16	43.57	46.36	65.47	68.26
	35	65.13	74.37	69.13	78.37	46.33	55.57	68.23	77.47	62.54	65.12	66.54	69.12	43.74	46.32	65.64	68.22
	97	64.96	72.01	68.96	76.01	46.16	53.21	68.06	75.11	62.60	65.69	66.60	69.69	43.80	46.89	65.70	68.79
17	02	77.80	92.64	82.70	97.54	72.89	87.73	104.09	118.95	74.53	86.09	79.43	90.99	69.62	81.18	100.82	112.38
	06	69.07	78.67	73.97	83.57	64.17	73.77	87.27	96.87	65.11	69.07	70.01	73.97	60.21	64.17	83.31	87.27
	08	68.06	76.79	72.96	81.69	63.16	71.89	86.26	94.99	65.58	70.55	70.48	75.45	60.68	65.65	83.78	88.75
	26	68.64	79.43	73.54	84.33	63.74	74.53	86.84	97.63	65.00	69.03	69.90	73.93	60.10	64.13	83.20	87.23
	35	68.88	82.43	73.78	87.33	63.98	77.53	87.08	100.63	65.03	68.68	69.93	73.58	60.13	63.78	83.23	86.88
	75	74.48	85.77	79.38	90.67	69.58	80.87	92.68	103.97	65.48	71.77	70.38	76.67	60.58	66.87	83.68	89.97
	99	68.69	79.25	73.59	84.15	63.79	74.35	86.89	97.45	65.13	69.29	70.03	74.19	60.23	64.39	83.33	87.49
19	11	87.04	100.63	87.99	101.58	67.69	81.28	97.59	111.18	83.63	92.05	84.58	93.00	64.28	73.45	94.18	103.35
	32	86.25	99.65	87.20	100.60	66.90	80.30	96.80	110.20	81.77	86.85	82.72	87.80	62.42	67.50	92.32	97.40
	35	86.56	103.01	87.51	103.96	67.21	83.66	97.11	113.56	81.94	86.51	82.89	87.46	62.59	67.16	92.49	97.06
21	11	99.71	119.55	101.71	121.55	81.81	101.65	111.81	131.65	92.45	101.95	94.45	103.95	74.55	84.05	104.55	114.05
	16	96.81	112.09	98.81	114.09	78.91	94.19	108.91	124.19	91.85	99.61	93.85	101.61	73.95	81.71	103.95	111.71
	35	97.09	117.75	99.09	119.75	79.19	99.85	109.19	129.85	91.56	98.00	93.56	100.00	73.66	80.10	103.66	110.10
	39	98.47	118.80	100.47	120.8	80.57	100.90	110.57	130.90	92.67	102.44	94.67	104.44	74.77	84.54	104.77	114.54
	41	97.01	114.38	99.01	116.38	79.11	126.48	109.11	126.48	91.27	97.98	93.27	99.98	73.37	80.08	103.37	80.08
	48	103.84	123.82	105.84	125.82	85.93	105.91	126.02	146.02	90.72	97.62	92.72	99.62	72.81	79.71	112.92	119.82
	75	108.72	125.62	110.72	127.62	90.81	107.71	130.92	147.82	90.72	97.62	92.72	99.62	72.81	79.71	112.92	119.82
23	21	108.81	132.06	118.01	141.26	90.61	113.86	122.81	146.06	102.30	115.68	111.5	124.88	84.10	97.48	116.30	129.68
	35	107.17	133.32	116.37	142.52	88.97	115.12	121.17	147.32	100.17	108.32	109.37	117.52	81.97	90.12	114.17	122.32
	53	107.23	129.42	116.43	138.62	89.03	111.22	121.23	143.42	99.81	108.22	109.01	117.42	81.61	90.02	113.81	122.22
	55	107.98	131.05	117.18	140.25	89.78	112.85	121.98	145.05	100.28	109.05	109.48	118.25	82.08	90.85	114.28	123.05
25	07	133.3	157.7	141.50	165.90	115.50	172.25	160.06	172.25	108.51	119.45	116.71	127.65	90.71	101.65	135.27	101.65
	11	132.31	152.31	140.51	160.51	114.51	134.51	159.71	179.07	111.51	124.51	119.71	132.71	93.71	106.71	138.91	151.27
	19	122.14	154.15	130.34	162.35	104.34	136.35	136.74	168.75	109.60	123.75	117.80	131.95	91.80	105.95	124.20	138.35
	24	121.64	153.00	129.84	161.20	103.84	135.20	136.24	167.60	110.00	124.44	118.20	132.64	92.20	106.64	124.60	139.04
	29	119.96	148.93	128.16	157.13	102.16	131.13	134.56	163.53	110.97	126.31	119.17	134.51	93.17	108.51	125.57	140.91
	35	117.75	150.58	125.95	158.78	99.95	132.78	132.35	165.18	108.79	118.58	116.99	126.78	90.99	100.78	123.39	133.18
	37	119.98	148.26	128.18	156.46	102.18	162.67	146.74	162.67	108.51	119.40	116.71	127.60	90.71	101.60	135.27	101.60
	44	140.35	164.98	148.55	173.18	122.55	179.58	167.11	179.71	106.81	117.08	115.01	125.28	89.01	99.28	133.57	99.41
	43	120.00	150.68	128.20	158.88	102.20	132.88	134.60	165.28	110.58	125.88	118.78	134.08	92.78	108.08	125.18	140.48
	46	122.30	146.14	130.50	154.34	104.50	128.34	136.90	160.74	107.66	117.82	115.86	126.02	89.86	100.02	122.26	132.42
	61	117.05	143.80	125.25	152.00	99.25	126.00	131.65	158.40	108.51	119.40	116.71	127.60	90.71	101.60	123.11	155.51
	08	143.38	175.21	151.58	183.41	125.58	157.41	157.98	189.81	107.38	119.21	115.58	127.41	89.58	101.41	121.98	133.81
	20	128.40	158.62	136.60	166.82	110.60	140.82	143.00	173.22	106.83	117.08	115.03	125.28	89.03	99.28	121.43	131.68
	04	120.80	150.65	129.00	158.85	103.00	132.85	135.40	165.25	111.60	125.21	119.80	133.41	93.80	107.41	126.20	139.81

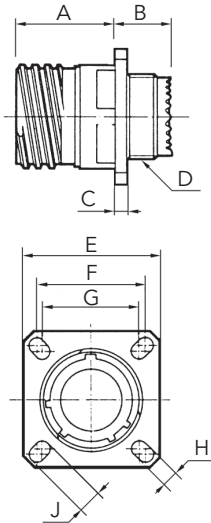
Connector part numbers

Basic Series	8D	0	-	11	TT	35	P	N			L
Shell style:											
0: Square flange receptacle											
7: Jam nut receptacle											
5: Plug with RFI shielding											
Type:											
- : 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, #12)											
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 contacts - see page 68, please consult us											
Shell size:											
09, 11, 13, 15, 17, 19, 21, 23, 25											
Plating:											
TT: Without plating											
TF: Nickel											
Contact layout:											
See pages 13 to 19											
Contact type:											
P: Pin											
A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation)											
S: Socket											
B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation)											
Orientation:											
N, A, B, C, D, E (see page 75)											
Specification:											
046: Tin plated PC tail contact SnPb (non RoHS)											
046E: Tin plated PC tail contact Sn pure (RoHS)											
046S: Tin plated PC tail contact SAC305 (RoHS)											
251: Connector provided with power contacts (layouts with contact #8)											
022: Fuel tank											
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											

Note: PC tail contacts without shoulder also available. Please see page 132.

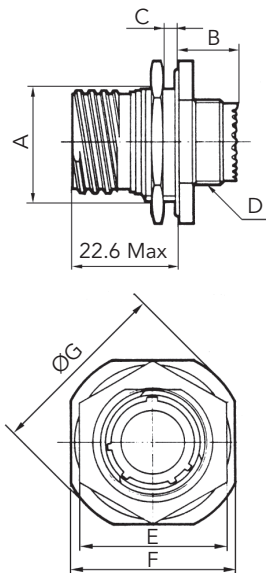
Dimensions

Receptacle type 0



Shell size	A Max	B Max	C Max	D Thread	E ± 0.3	F	G	H ± 0.2	J ± 0.2
09 (A)	20.2	11.4	2.5	M12 x 1-6g	23.8	18.26	15.09	3.25	5.49
11 (B)				M15 x 1-6g	26.2	20.62	18.26		4.93
13 (C)				M18 x 1-6g	28.6	23.01	20.62		4.39
15 (D)				M22 x 1-6g	31	24.61	23.01		
17 (E)				M25 x 1-6g	33.3	26.97	24.61		
19 (F)				M28 x 1-6g	36.5	29.36	26.97		
21 (G)	19.8	11.8	3.2	M31 x 1-6g	39.7	31.75	29.36	3.91	6.15
23 (H)		11.4		M34 x 1-6g	42.9	34.93	31.75		
25 (J)				M37 x 1-6g	46	38.1	34.93		

Receptacle type 7



Shell size	A ± 0.15	B Max	C Max	D Thread	E Max	F ± 0.4	$\varnothing G$ Max
09 (A)	16.53	9.9	3.2	M12 x 1-6g	23	27	30.5
11 (B)	19.07			M15 x 1-6g	26	31.8	35.2
13 (C)	23.82			M18 x 1-6g	31	34.9	38.4
15 (D)	26.97			M22 x 1-6g	34	38.1	41.6
17 (E)	30.15			M25 x 1-6g	37	41.3	44.8
19 (F)	33.32			M28 x 1-6g	41	46	49.5
21 (G)	36.50			M31 x 1-6g	46	49.2	52.7
23 (H)	39.67			M34 x 1-6g	47	52.4	55.9
25 (J)	42.85			M37 x 1-6g	51.23	55.6	59

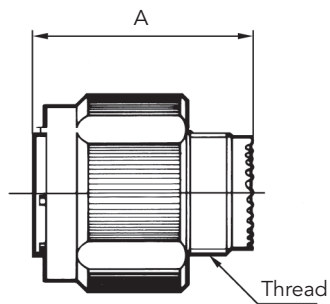
Recommended coupling torque on panel for jam nut receptacle (type 7)

Shell	09 (A)	11 (B)	13 (C)	15 (D)	17 (E)	19 (F)	21 (G)	23 (H)	25 (J)
Coupling torque (± 0.5 N.m)	4	5	7	8	9	10	12	13	14

Note: All dimensions are in millimeters (mm)

Dimensions

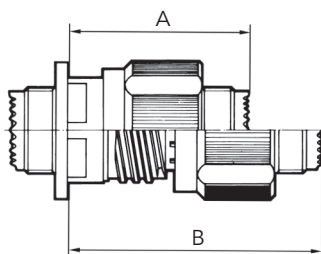
Plug type 5



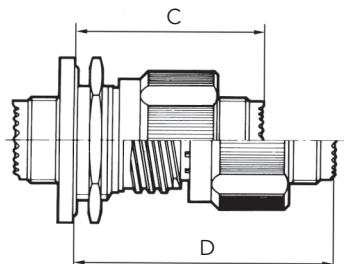
Shell size	A Max	Thread	ØB Max
09 (A)	31.00	M12 x 1-6g	21.80
11 (B)		M15 x 1-6g	25.00
13 (C)		M18 x 1-6g	29.40
15 (D)		M22 x 1-6g	32.50
17 (E)		M25 x 1-6g	35.70
19 (F)		M28 x 1-6g	38.50
21 (G)		M31 x 1-6g	41.70
23 (H)		M34 x 1-6g	44.90
25 (J)		M37 x 1-6g	48.00

Mated connectors dimensions

Type 0 with plug



Type 7 with plug



Shell size	A Max	B Max	C Max	D Max
09 (A)	37.00	52.30	38.30	53.60
11 (B)			38.50	53.80
13 (C)				
15 (D)				
17 (E)				
19 (F)				
21 (G)				
23 (H)				
25 (J)				
	36.00	51.30		

Note: All dimensions are in millimeters (mm)

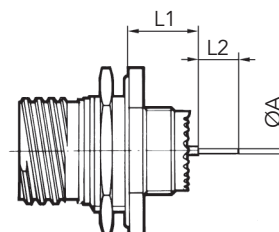
PC tail contacts lengths

	Contact size	Contact type		PC tail type	Shell size							
					09 (A)	11 (B)	13 (C)	15 (C)	17 (E)	19 (F)	21 (G)	23 (H)
ØA	#22D	M & F	Max	L & C	0.70							
		M & F	Max	S	0.50							
	#20	M & F	Max	C	0.70							
	#16	M & F	Max	C	1.15							
	#12	M & F	Max	C	2.00							
L1	#22D	M	Min	L & C	10.52		10.34					
		M	Max	L & C	11.46		11.28					
		F	Min	L & C	10.19		10.01					
		F	Max	L & C	11.46		11.28					
		M	Min	S	10.19		10.01					
		M	Max	S	11.46		11.28					
		F	Min	S	10.69		10.51					
		F	Max	S	11.63		11.45					
	#20	M	Min	C	10.36		10.18					
		M	Max	C	11.63		11.45					
		F	Min	C	10.69		10.51					
		F	Max	C	11.63		11.45					
	#16	M	Min	C	10.69		10.51					
		M	Max	C	11.63		11.45					
		F	Min	C	10.69		10.51					
		F	Max	C	11.63		11.45					
	#12	M	Min	C	10.63		10.45					
		M	Max	C	11.56		11.38					
		F	Min	C	10.63		10.45					
		F	Max	C	11.56		11.38					
L2	#22D	M & F	Max	L	8.50							
		M & F	Max	C	4.00							
		M & F	Max	S	5.10							
	#20	M & F	Max	C	5.10							
	#16	M & F	Max	C	5.10							
	#12	M & F	Max	C	5.10							
L3	#22D	M	Min	L & C	9.48						9.59	
		M	Max	L & C	10.58						10.69	
		F	Min	L & C	9.15						9.26	
		F	Max	L & C	10.58						10.69	
		M	Min	S	9.65						9.76	
		M	Max	S	10.75						10.86	
		F	Min	S	9.15						9.26	
		F	Max	S	10.75						10.86	
	#20	M	Min	C	9.65						9.76	
		M	Max	C	10.75						10.86	
		F	Min	C	9.65						9.76	
		F	Max	C	10.75						10.86	
	#16	M	Min	C	9.64						9.75	
		M	Max	C	10.75						10.86	
		F	Min	C	9.64						9.75	
		F	Max	C	10.75						10.86	
	#12	M	Min	C	10.25						9.95	
		M	Max	C	11.21						10.91	
		F	Min	C	10.25						9.95	
		F	Max	C	11.21						10.91	

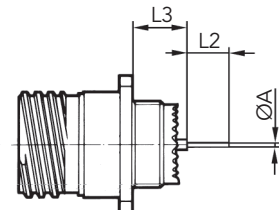
M: Male contact
F: Female contact

L: Long PC tail
C: Short PC tail
S: Specific PC tail

Receptacle type 7



Receptacle type 0



Note: All dimensions are in millimeters (mm)

Connectors weight - in gram (±15%)

Shell size & Layout		With contacts						Without contacts					
		Plug (type 5)		Receptacle (type 0)		Receptacle (type 7)		Plug (type 5)		Receptacle (type 0)		Receptacle (type 7)	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
09	35	18.23	19.81	14.37	15.95	20.14	21.72	17.81	18.31	13.95	14.45	19.72	20.22
	98	18.23	19.53	14.37	15.67	20.14	21.44	17.81	18.33	13.95	14.47	19.72	20.24
11	01	23.15	26.09	18.19	21.13	25.63	28.57	22.49	24.49	17.53	19.53	24.97	26.97
	02	22.78	25.32	17.82	20.36	28.1	30.64	22.16	23.76	17.2	18.8	27.48	29.08
	04	22.97	26.03	18.01	21.07	25.45	28.51	22.41	24.43	17.45	19.47	24.89	26.91
	05	23.00	26.21	18.04	21.25	25.24	28.69	22.30	24.21	17.34	19.25	24.78	26.69
	22	22.64	25.06	17.68	20.10	27.96	30.38	22.36	24.06	17.40	19.10	27.68	29.38
	35	22.90	26.37	17.94	21.41	25.14	28.85	21.99	23.12	17.03	18.16	24.47	25.60
	80	25.38	29.86	20.08	24.88	30.66	35.78	22.10	22.86	16.80	17.88	27.38	28.78
	98	22.87	25.63	17.91	20.67	25.35	28.11	22.03	23.23	17.07	18.27	24.51	25.71
	99	23.04	26.26	18.06	21.28	25.53	28.75	22.06	23.46	17.08	18.48	24.55	25.95
13	04	32.44	36.22	23.56	27.34	34.11	37.89	31.20	33.10	22.32	24.22	32.87	34.77
	08	32.82	38.00	23.94	29.12	34.49	39.67	31.70	34.80	22.82	25.92	33.37	36.47
	26	33.19	38.84	24.31	29.96	34.86	40.51	31.45	34.14	22.57	25.26	33.12	35.81
	35	32.62	38.39	23.74	29.51	34.29	40.06	31.08	32.89	22.20	24.01	32.75	34.56
	98	32.48	37.10	23.60	28.22	34.15	38.77	31.08	33.10	22.20	24.22	32.75	34.77
15	05	39.61	44.95	28.77	34.11	41.40	46.74	38.06	41.05	27.22	30.21	39.85	42.84
	15	40.41	47.57	29.57	36.73	42.20	49.36	38.14	41.19	27.30	30.35	39.93	42.98
	18	40.62	49.50	29.78	38.66	42.41	51.29	38.10	42.30	27.26	31.46	39.89	44.09
	19	40.15	47.88	29.31	37.04	41.94	49.67	37.49	40.28	26.65	29.44	39.28	42.07
	35	40.25	49.49	29.41	38.65	42.04	51.28	37.66	40.24	26.82	29.40	39.45	42.03
	97	40.08	47.13	29.24	36.29	41.87	48.92	37.72	40.81	26.88	29.97	39.51	42.60
17	02	48.16	58.40	45.20	55.44	63.99	74.23	44.89	51.85	41.93	48.89	60.72	67.68
	06	43.73	53.33	40.90	50.50	54.23	63.83	39.77	43.73	36.94	40.90	50.27	54.23
	08	42.72	51.45	39.89	48.62	53.22	61.95	40.24	45.21	37.41	42.38	50.74	55.71
	26	43.30	54.09	40.47	51.26	53.80	64.59	39.66	43.69	36.83	40.86	50.16	54.19
	35	43.54	57.09	40.71	54.26	54.04	67.59	39.69	43.34	36.86	40.51	50.19	53.84
	75	49.14	60.43	46.31	57.60	59.64	70.93	40.14	46.43	37.31	43.60	50.64	56.93
	99	43.35	53.91	40.52	51.08	53.85	64.41	39.79	43.95	36.96	41.12	50.29	54.45
19	11	55.16	68.75	44.00	57.59	61.25	74.84	51.75	60.17	40.59	66.26	40.59	66.26
	32	54.37	67.77	43.21	56.61	60.46	73.86	49.89	54.97	38.73	61.06	38.73	61.06
	35	54.68	71.13	43.52	59.97	60.77	77.22	50.06	54.63	38.90	60.72	38.90	60.72
21	11	64.64	84.48	54.31	74.15	71.62	91.46	57.38	66.88	47.05	73.86	47.05	73.86
	16	61.74	77.02	51.41	66.69	68.72	84.00	56.78	64.54	46.45	71.52	46.45	71.52
	35	62.02	82.68	51.69	72.35	69.00	89.66	56.49	62.93	46.16	69.91	46.16	69.91
	39	63.40	83.73	53.07	73.40	70.38	90.71	57.60	67.37	47.27	74.35	47.27	74.35
	41	61.94	79.31	51.61	66.29	68.92	86.29	56.20	62.91	45.87	69.89	45.87	69.89
	48	68.73	88.71	58.4	78.38	81.56	101.54	55.61	62.51	45.28	72.18	45.28	72.18
	75	73.61	90.51	63.28	80.18	86.44	103.34	55.61	62.51	45.28	72.18	45.28	72.18
23	21	71.07	94.32	60.57	83.82	79.15	102.40	64.56	77.94	54.06	86.02	54.06	86.02
	35	69.43	95.58	58.93	85.08	77.51	103.66	62.43	70.58	51.93	78.66	51.93	78.66
	53	69.49	91.68	58.99	81.18	77.57	99.76	62.07	70.48	51.57	78.56	51.57	78.56
	55	70.24	93.31	59.74	82.81	78.32	101.39	62.54	71.31	52.04	79.39	52.04	79.39
25	07	83.91	117.09	73.64	123.58	99.34	121.8	68.12	78.84	57.85	85.33	57.85	85.33
	11	91.92	111.92	81.65	101.65	94.65	127.35	71.12	84.12	60.85	73.85	60.85	73.85
	19	81.78	113.79	71.51	103.52	90.20	122.21	69.24	83.39	58.97	91.81	58.97	91.81
	24	81.28	112.64	71.01	102.37	89.70	121.06	69.64	84.08	59.37	92.50	59.37	92.50
	29	79.60	108.57	69.33	98.30	88.02	116.99	70.61	85.95	60.34	94.37	60.34	94.37
	35	77.39	110.22	67.12	99.95	85.81	118.64	68.43	82.22	58.16	86.64	58.16	86.64
	37	79.59	107.09	69.32	116.12	95.02	113.36	68.12	79.04	57.85	87.26	57.85	87.26
	44	99.96	127.50	89.69	134.23	115.39	134.44	66.42	77.85	56.15	86.33	56.15	86.33
	43	79.64	110.32	69.37	100.05	88.06	118.74	70.22	85.52	59.95	93.94	59.95	93.94
	46	81.94	105.78	71.67	95.51	90.36	114.20	67.30	77.46	57.03	85.88	57.03	85.88
	61	76.69	103.44	66.42	93.17	85.11	111.86	68.15	79.04	57.88	87.46	57.88	87.46
	08	103.02	134.85	92.75	124.58	111.44	143.27	67.02	78.85	56.75	87.27	56.75	87.27
	20	88.04	118.26	77.77	107.99	96.46	126.68	66.47	76.72	56.20	85.14	56.20	85.14
	04	80.44	110.29	70.17	100.02	88.86	118.71	71.24	84.85	60.97	93.27	60.97	93.27

Connector part numbers

Basic Series	JVS	16	A	11	35	P	N
Shell style:							
00: Square flange receptacle							
07: Jam nut receptacle							
16: Plug with RFI shielding							
Material:							
A: Bronze housing material							
Shell size:							
09, 11, 13, 15, 17, 19, 21, 23, 25							
Contact layout:							
See pages 13 to 19							
Contact type:							
P: Pin A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation)							
S: Socket B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation)							
Orientation:							
N, A, B, C, D, E (see page 75)							
Specification:							
046: Tin plated PC tail contact SnPb (non RoHS)							
046E: Tin plated PC tail contact Sn pure (RoHS)							
046S: Tin plated PC tail contact SAC305 (RoHS)							
251: Connector provides with power contacts (layouts with contacts #8)							
CI: Printed board mounting contacts							
LI: Receptacle with long PC tail (pin or socket #22D)							
L: For P or S contact type only, connectors delivered without contacts, connectors marking P or S plus orientation							

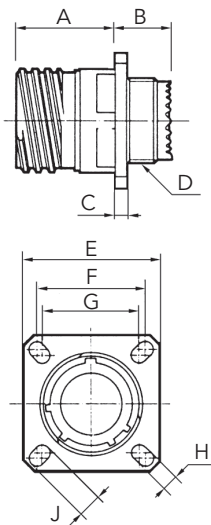
CECC part numbers

Basic Series	C 752 002	B	B	98	M	C	N	A	0	1	G
Shell style:											
A: Plug											
B: Square flange receptacle											
C: Jam nut receptacle											
Shell size:											
09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J											
Contact layout:											
See pages 13 to 19											
Contact type:											
M: Pin											
F: Socket											
Type of contact termination:											
C: Crimp contact											
Orientation:											
N, A, B, C, D, E (see page 75)											
Shell material:											
A: Aluminum bronze											
Supply code:											
0: Connectors supplied with contacts											
1: Connectors supplied without contacts											
Assessment level:											
1: Level 1											
Performance level:											
G: Level G											

Note: C 752 002 refers to the abbreviated form of the CECC 75 201-002 type designation.

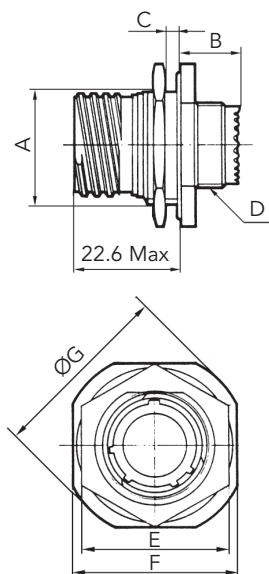
Dimensions

Receptacle type 00 (JVS) or type B (CECC)



Shell size	A Max	B Max	C Max	D Thread	E ± 0.3	F	G	H ± 0.2	J ± 0.2
09 (A)	20.2	11.4	2.5	M12 x 1-6g	23.8	18.26	15.09	3.25	5.49
11 (B)				M15 x 1-6g	26.2	20.62	18.26		4.93
13 (C)				M18 x 1-6g	28.6	23.01	20.62		
15 (D)				M22 x 1-6g	31	24.61	23.01		4.39
17 (E)				M25 x 1-6g	33.3	26.97	24.61		4.93
19 (F)				M28 x 1-6g	36.5	29.36	26.97		
21 (G)	19.8	11.8	3.2	M31 x 1-6g	39.7	31.75	29.36	3.91	6.15
23 (H)		11.4		M34 x 1-6g	42.9	34.93	31.75		
25 (J)				M37 x 1-6g	46	38.1	34.93		

Receptacle type 07 (JVS) or type C (CECC)



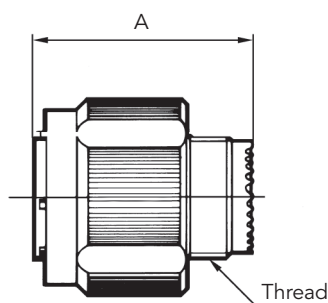
Shell size	A ± 0.15	B Max	C Max	D Thread	E Max	F ± 0.4	$\varnothing G$ Max
09 (A)	16.53	9.9	3.2	M12 x 1-6g	23	27	30.5
11 (B)	19.07			M15 x 1-6g	26	31.8	35.2
13 (C)	23.82			M18 x 1-6g	31	34.9	38.4
15 (D)	26.97			M22 x 1-6g	34	38.1	41.6
17 (E)	30.15			M25 x 1-6g	37	41.3	44.8
19 (F)	33.32			M28 x 1-6g	41	46	49.5
21 (G)	36.50			M31 x 1-6g	46	49.2	52.7
23 (H)	39.67			M34 x 1-6g	47	52.4	55.9
25 (J)	42.85			M37 x 1-6g	51.23	55.6	59

Recommended coupling torque on panel for jam nut receptacle (type 7)

Shell	09 (A)	11 (B)	13 (C)	15 (D)	17 (E)	19 (F)	21 (G)	23 (H)	25 (J)
Coupling torque (± 0.5 N.m)	4	5	7	8	9	10	12	13	14

Dimensions

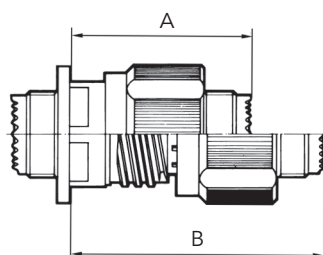
Plug type 16 (JVS) or type A (CECC)



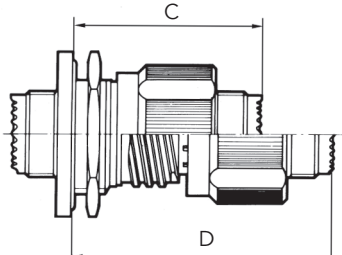
Shell size	A Max	Thread	ØB Max
09 (A)	31.00	M12 x 1-6g	21.10
11 (B)		M15 x 1-6g	23.80
13 (C)		M18 x 1-6g	28.20
15 (D)		M22 x 1-6g	31.40
17 (E)		M25 x 1-6g	36.50
19 (F)		M28 x 1-6g	39.30
21 (G)		M31 x 1-6g	42.50
23 (H)		M34 x 1-6g	45.30
25 (J)		M37 x 1-6g	48.40

Mated connectors dimensions

Type 0 with plug

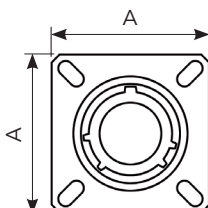
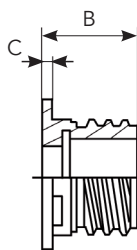
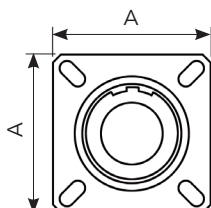


Type 7 with plug



Shell size	A Max	B Max	C Max	D Max
09 (A)	37.00	52.30	38.30	53.60
11 (B)				
13 (C)				
15 (D)				
17 (E)				
19 (F)				
21 (G)	36.00	51.30		
23 (H)				
25 (J)				

Dummy receptacle

Orientation:
N, A, B, C, D, E

Orientation: DU
(= all orientations)


Examples of Part Number:

. JVS BN 02 A 17 N
. JVS BN 02 A 17 DU

└─ N, DU: Orientation
└─ 17: Shell size
└─ A: Bronze

Equivalent to CECC blind hole. For information only:
CECC75201002AxA00A (x = shell size A, B, C, D, ...) = JVSBN02A17DU (through hole)
(no correspondence CECC with N, A, B, C, D, E orientations)

Shell size	9	11	13	15	17	19	21	23	25
A ^{+0.3} _{-0.3}	23.8	26.2	28.6	31	33.3	36.5	39.7	42.9	46
B maxi	24.2	24.2	24.2	24.2	24.2	24.2	24.1	24.1	24.1
C maxi	2.5	2.5	2.5	2.5	2.5	2.5	3.2	3.2	3.2

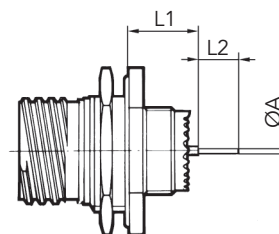
PC tail contacts lengths

	Contact size	Contact type		PC tail type	Shell size							
					09 (A)	11 (B)	13 (C)	15 (C)	17 (E)	19 (F)	21 (G)	23 (H)
ØA	#22D	M & F	Max	L & C	0.70							
		M & F	Max	S	0.50							
	#20	M & F	Max	C	0.70							
	#16	M & F	Max	C	1.15							
	#12	M & F	Max	C	2.00							
L1	#22D	M	Min	L & C	10.52		10.34					
		M	Max	L & C	11.46		11.28					
		F	Min	L & C	10.19		10.01					
		F	Max	L & C	11.46		11.28					
		M	Min	S	10.19		10.01					
		M	Max	S	11.46		11.28					
		F	Min	S	10.69		10.51					
		F	Max	S	11.63		11.45					
	#20	M	Min	C	10.36		10.18					
		M	Max	C	11.63		11.45					
		F	Min	C	10.69		10.51					
		F	Max	C	11.63		11.45					
	#16	M	Min	C	10.69		10.51					
		M	Max	C	11.63		11.45					
		F	Min	C	10.69		10.51					
		F	Max	C	11.63		11.45					
	#12	M	Min	C	10.63		10.45					
		M	Max	C	11.56		11.38					
		F	Min	C	10.63		10.45					
		F	Max	C	11.56		11.38					
L2	#22D	M & F	Max	L	8.50							
		M & F	Max	C	4.00							
		M & F	Max	S	5.10							
	#20	M & F	Max	C	5.10							
	#16	M & F	Max	C	5.10							
	#12	M & F	Max	C	5.10							
L3	#22D	M	Min	L & C	9.48						9.59	
		M	Max	L & C	10.58						10.69	
		F	Min	L & C	9.15						9.26	
		F	Max	L & C	10.58						10.69	
		M	Min	S	9.65						9.76	
		M	Max	S	10.75						10.86	
		F	Min	S	9.15						9.26	
		F	Max	S	10.75						10.86	
	#20	M	Min	C	9.65						9.76	
		M	Max	C	10.75						10.86	
		F	Min	C	9.65						9.76	
		F	Max	C	10.75						10.86	
	#16	M	Min	C	9.64						9.75	
		M	Max	C	10.75						10.86	
		F	Min	C	9.64						9.75	
		F	Max	C	10.75						10.86	
	#12	M	Min	C	10.25						9.95	
		M	Max	C	11.21						10.91	
		F	Min	C	10.25						9.95	
		F	Max	C	11.21						10.91	

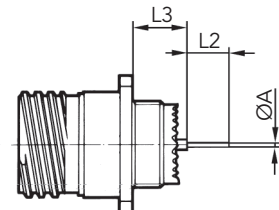
M: Male contact
F: Female contact

L: Long PC tail
C: Short PC tail
S: Specific PC tail

Receptacle type 7



Receptacle type 0



Note: All dimensions are in millimeters (mm)

Connectors weight - in gram ($\pm 15\%$)

Shell size & Layout		With contacts						Without contacts					
		Plug (type 5)		Receptacle (type 0)		Receptacle (type 7)		Plug (type 5)		Receptacle (type 0)		Receptacle (type 7)	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
09	35	28.46	32.38	22.70	26.62	34.51	38.43	27.42	28.66	21.66	22.90	33.47	34.71
	98	28.46	31.68	22.70	25.93	34.51	37.74	27.42	28.71	21.66	22.95	33.47	34.76
11	01	37.17	44.46	29.80	37.09	45.08	52.37	35.53	40.49	28.16	33.12	43.44	48.40
	02	36.25	42.55	28.88	35.18	44.17	50.47	34.71	38.68	27.34	31.32	42.63	46.60
	04	36.72	44.31	29.35	36.94	44.63	52.23	35.33	40.34	27.96	32.97	43.24	48.26
	05	36.79	44.76	29.42	37.39	48.33	52.67	35.06	39.80	27.69	32.43	42.97	47.71
	22	35.90	41.91	28.53	34.54	43.82	49.82	35.21	39.43	27.84	32.06	43.13	47.34
	35	36.55	45.15	29.18	37.79	43.86	53.07	34.29	37.09	26.92	29.72	42.20	45.01
	80	45.40	54.33	37.96	46.89	53.35	70.43	34.23	36.45	26.79	29.08	42.77	44.37
	98	36.47	43.32	29.10	35.95	44.39	51.23	34.39	37.36	27.02	30.00	42.30	45.28
	99	36.90	44.89	29.53	37.52	44.81	52.80	34.46	37.94	27.09	30.57	42.38	45.86
13	04	52.20	61.58	38.98	48.35	59.89	69.27	49.12	53.84	35.90	40.61	56.81	61.53
	08	53.14	65.99	39.92	52.77	60.83	73.69	50.36	58.06	37.14	44.83	58.06	65.75
	26	54.06	68.08	40.84	54.85	61.75	75.77	49.74	56.42	36.52	43.19	57.44	64.11
	35	52.65	66.96	39.42	53.74	60.34	74.65	48.83	53.32	35.60	40.09	56.52	61.01
	98	52.30	63.76	39.08	50.54	59.99	71.45	48.83	53.84	35.60	40.61	56.52	61.53
15	05	64.61	77.85	48.48	61.73	73.49	86.74	60.76	68.18	44.63	52.05	69.64	77.06
	15	66.59	84.35	50.46	68.23	75.47	93.24	60.96	68.53	44.83	52.40	69.84	77.41
	18	67.11	89.14	50.98	73.02	75.99	98.02	60.86	71.28	44.73	55.15	69.74	80.16
	19	65.94	85.12	49.82	69.00	74.83	94.01	59.35	66.27	43.22	50.14	68.23	75.15
	35	66.19	89.12	50.07	72.99	75.08	98.00	59.77	66.17	43.64	50.04	68.65	75.05
	97	65.77	83.26	49.64	67.14	74.65	92.14	59.92	67.58	43.79	51.46	68.80	76.46
17	02	71.16	103.09	66.95	86.21	93.75	113.01	64.00	73.93	59.79	69.71	86.59	96.51
	06	74.18	98.00	69.99	93.81	96.76	120.58	64.36	74.18	60.16	69.99	86.93	96.76
	08	71.68	93.34	67.48	89.14	94.25	115.91	65.52	77.85	61.33	73.66	88.10	100.43
	26	73.12	99.89	68.92	95.69	95.69	122.46	64.08	74.08	59.89	69.89	86.66	96.66
	35	73.71	107.33	69.52	103.14	96.29	129.91	64.16	73.21	59.97	69.02	86.74	95.79
	75	87.60	115.61	83.41	111.42	110.18	138.19	65.28	80.88	61.08	76.69	87.85	103.46
	99	73.24	99.44	69.05	95.25	95.82	122.02	64.41	74.73	60.21	70.53	86.98	97.30
19	11	93.71	127.42	77.08	110.8	110.70	144.42	85.25	106.14	68.62	115.19	76.56	123.13
	32	91.75	124.99	75.12	108.37	108.74	141.99	80.63	93.24	64.01	102.29	71.95	110.23
	35	92.52	133.33	75.89	116.71	109.51	109.39	81.05	92.39	64.43	101.45	72.37	109.39
21	11	112.91	162.13	97.53	146.75	131.96	181.19	94.90	118.47	79.52	128.84	88.20	137.52
	16	105.72	143.63	90.33	128.24	124.77	162.68	93.41	112.66	78.03	123.03	86.71	131.72
	35	106.41	157.67	91.03	142.29	125.46	176.72	92.69	108.67	77.31	119.04	85.99	127.72
	39	109.83	160.27	94.45	144.89	128.89	179.33	95.44	119.68	80.06	130.05	88.75	138.74
	41	106.21	149.31	90.83	159.68	125.27	168.36	91.97	108.62	76.59	118.99	85.27	127.67
	48	103.63	133.84	88.25	118.46	122.61	152.90	90.52	107.64	75.14	92.26	109.58	126.70
23	75	135.19	177.13	119.80	161.74	154.25	196.18	90.52	107.64	75.14	92.26	109.58	126.70
	21	125.27	182.95	109.64	167.32	146.95	204.63	109.11	142.31	93.48	154.32	103.16	163.99
	35	121.20	186.08	105.57	170.44	142.88	207.76	103.83	124.05	88.20	136.06	97.88	145.73
	53	121.35	176.40	105.72	160.77	143.03	198.08	102.94	123.8	87.31	135.81	96.98	145.49
25	55	123.21	180.44	107.58	164.81	144.89	202.13	104.10	125.86	88.47	137.87	98.15	147.55
	07	153.58	179.40	138.29	186.55	176.55	202.05	114.40	141.15	99.11	148.3	137.37	163.70
	11	142.64	181.90	127.35	166.61	165.62	204.80	121.84	154.10	106.55	138.81	144.82	177.08
	19	148.26	227.68	132.98	212.40	171.24	250.66	117.15	152.26	101.87	164.81	112.29	175.23
	24	147.02	224.83	131.74	209.55	170.00	247.80	118.15	153.97	102.86	166.52	113.28	176.94
	29	142.86	214.73	127.57	199.45	165.83	237.70	120.55	158.61	105.27	171.16	115.69	181.58
	35	137.37	218.82	122.09	203.54	160.35	241.80	115.14	139.43	99.86	151.99	110.28	162.41
	37	153.57	170.01	138.29	177.20	176.55	192.56	114.40	141.15	99.11	148.30	137.37	163.70
	44	143.71	183.40	128.18	195.16	166.69	206.58	110.17	135.50	94.64	147.50	133.15	158.68
	43	142.96	219.07	127.67	203.79	165.93	242.05	119.58	157.54	104.30	170.10	114.72	180.52
	46	148.66	207.81	133.38	192.53	171.64	230.78	112.34	137.55	97.06	150.10	107.48	160.52
	61	135.64	202.00	120.35	186.72	158.61	224.98	114.45	141.47	99.17	154.02	109.59	164.44
	08	200.96	279.93	185.68	264.65	223.94	302.91	111.65	141.00	96.36	153.55	106.78	163.97
	20	163.80	238.77	148.51	223.49	186.77	261.75	110.28	135.71	95.00	148.26	105.42	158.68
	04	144.94	219.00	129.66	203.71	167.91	241.97	122.11	155.88	106.83	168.44	117.25	178.86

Bronze backshells

Part number

Basic Series	JVS	A	11	E	00	C	CC
Accessory style							
A : Rear accessory (backshell)							
Shell size:							
09, 11, 13, 15, 17, 19, 21, 23, 25							
Accessory type:							
A: Screened adaptor for use with compression spring or band strap							
B: Adaptor with strain relief cable clamp							
E: Screened adaptor with braid trap							
G: Environmental cone clamp screened adaptor							
P: Adaptor for heat shrink boot							
X: Cone clamp screened adaptor							
Cable entry codification (see table below):							
For B, P and X type:							
00: Standard, by default choice							
For other types:							
00: Standard, by default choice							
03 to 32: Depending on backshell type, please refer to corresponding table							
Angle:							
A: Straight backshell (orientation by default)							
B: 45° backshell (except for «B Type» accessory)							
C: 90° right angle backshell							
Variant:							
For all types:							
None: Supplied without any other accessory							
For E and X type:							
CC: Cable clamp variant							

How to built a backshell reference for types A, E or G

Backshell type	Shell size	Standard correspondance		Specific
		Entry codification	Entry size backshell	Other entry codication
Type A & E	09	00	04	03
	11	00	06	05 to 03
	13	00	08	07 to 04
	15	00	10	09 to 06
	17	00	12	11 to 08
	19	00	13	12 to 09
	21	00	16	15 to 12
	23	00	18	17 to 14
	25	00	20	19 to 16

Backshell type	Shell size	Standard correspondance		Specific
		Entry codification	Entry size backshell	Other entry codication
Type G	09	00	-	-
	11	00	04	-
	13	00	06	04
	15	00	10	08 to 04
	17	00	12	10 to 04
	19	00	12	10 to 04
	21	00	16	12 to 04
	23	00	16	12 to 04
	25	00	16	12 to 04

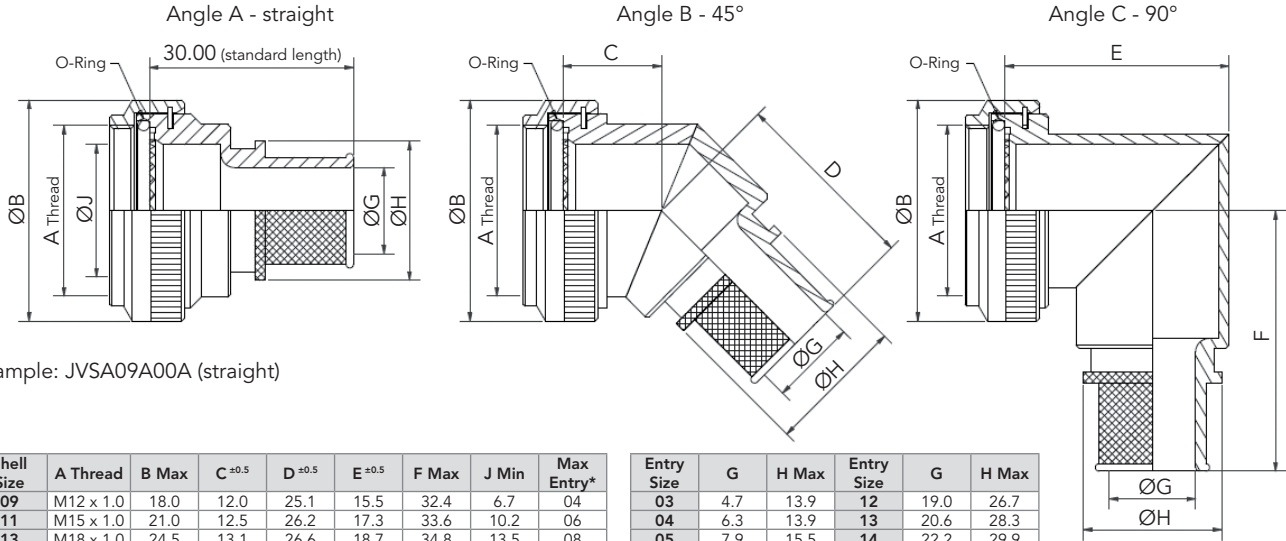
Examples:

To order a right angle backshell type "A" size 15 with entry size 10, placed your order with: JVSA15G00C

To order a right angle backshell type "A" size 15 with entry size 06, placed your order with: JVSA15G06C

Bronze backshells

Type A - Screened adaptor for use with compression spring or band strap

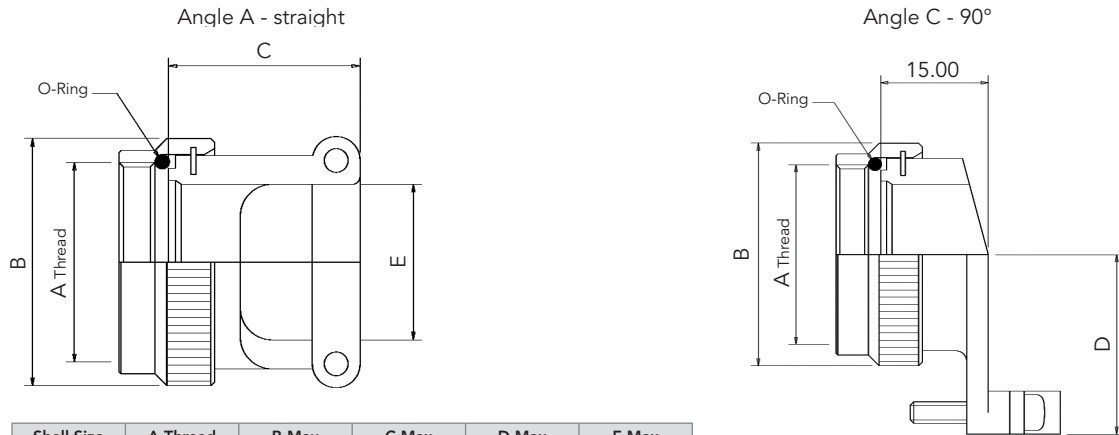


Shell Size	A Thread	B Max	C ±0.5	D ±0.5	E ±0.5	F Max	J Min	Max Entry*
09	M12 x 1.0	18.0	12.0	25.1	15.5	32.4	6.7	04
11	M15 x 1.0	21.0	12.5	26.2	17.3	33.6	10.2	06
13	M18 x 1.0	24.5	13.1	26.6	18.7	34.8	13.5	08
15	M22 x 1.0	29.0	13.5	27.5	21.3	36.6	16.2	10
17	M25 x 1.0	32.5	14.5	28.3	22.8	38.5	19.4	12
19	M28 x 1.0	35.5	15.5	28.8	24.4	40.3	21.8	13
21	M31 x 1.0	37.0	16.0	29.7	25.1	42.0	25.1	16
23	M34 x 1.0	40.0	16.5	30.0	26.6	43.4	28.2	18
25	M37 x 1.0	43.5	17.1	30.9	28.1	44.8	31.4	20

Entry Size	G	H Max	Entry Size	G	H Max
03	4.7	13.9	12	19.0	26.7
04	6.3	13.9	13	20.6	28.3
05	7.9	15.5	14	22.2	29.9
06	9.5	17.2	15	23.8	31.5
07	11.1	18.7	16	25.4	33.1
08	12.7	20.3	17	27.0	34.7
09	14.2	21.9	18	28.6	36.3
10	15.8	23.5	19	30.2	37.9
11	17.4	25.1	20	31.8	39.5

* Recommendation only, please consult us for outside entry size

Type B - Adaptor with strain relief cable clamp



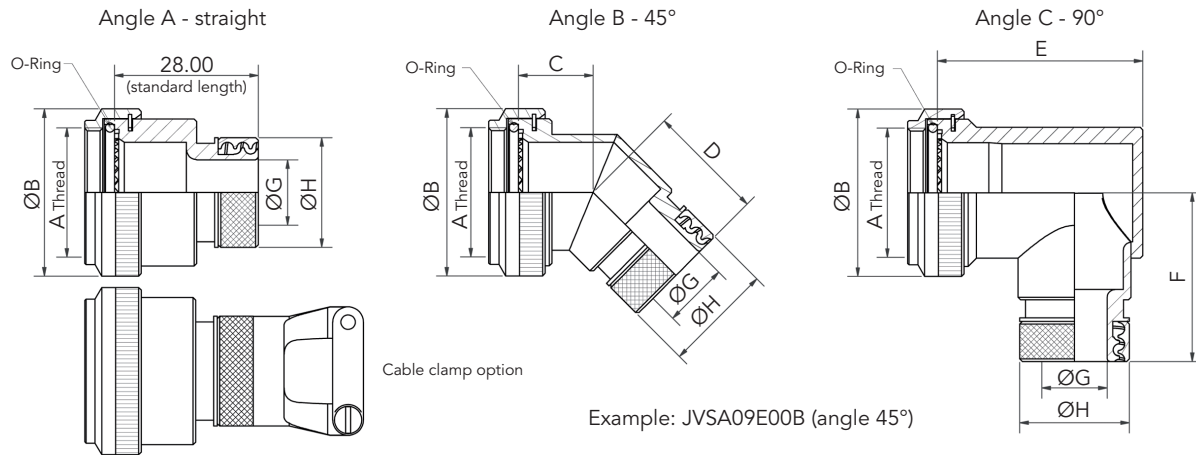
Shell Size	A Thread	B Max	C Max	D Max	E Max
09	M12 x 1.0	18.0	21.5	20.0	7.0
11	M15 x 1.0	21.0	21.5	21.0	10.5
13	M18 x 1.0	24.5	23.5	22.0	13.4
15	M22 x 1.0	29	23.5	23.0	16.5
17	M25 x 1.0	32.5	24.5	25.0	19.7
19	M28 x 1.0	35.5	27.5	27.5	22.2
21	M31 x 1.0	37.0	34.5	30.0	25.6
23	M34 x 1.0	40.0	37.5	31.5	28.5
25	M37 x 1.0	43.5	37.5	34.5	31.7

Example: JVSA09B00A (straight)

Note: All dimensions are in millimeters (mm)

Bronze backshells

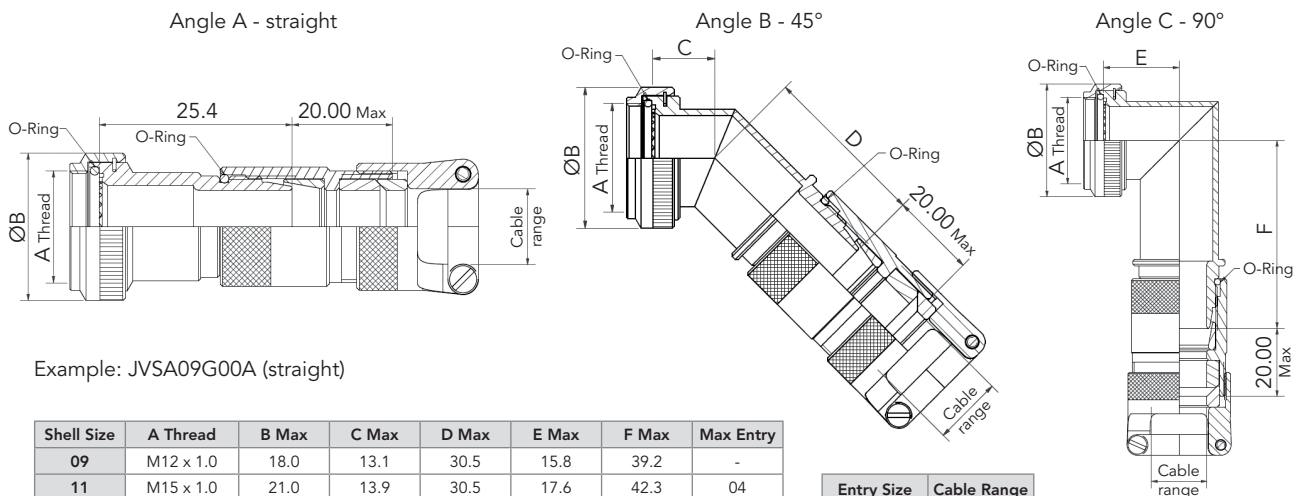
Type E - Screened adaptor with braid trap



Shell Size	A Thread	B Max	C Max	D Max	E Max	F Max	Max Entry
09	M12 x 1.0	18.0	13.1	23.6	25.7	30.5	04
11	M15 x 1.0	21.0	13.9	24.4	26.7	32.2	06
13	M18 x 1.0	24.5	14.5	24.8	31.2	33.7	08
15	M22 x 1.0	29.0	15.5	25.6	37.2	35.2	10
17	M25 x 1.0	32.5	16.1	26.4	40.2	36.9	12
19	M28 x 1.0	35.5	16.8	26.8	44.7	38.5	13
21	M31 x 1.0	37.0	17.1	27.6	49.2	40.1	16
23	M34 x 1.0	40.0	17.7	28.0	51.7	41.6	18
25	M37 x 1.0	43.5	18.4	29.0	53.2	43.1	20

Entry Size	G	H Max	Entry Size	G	H Max
03	4.77	15.0	12	19.05	27.7
04	6.35	15.0	13	20.62	29.3
05	7.92	16.6	14	22.23	30.9
06	9.52	18.2	15	23.82	32.5
07	11.10	19.8	16	25.40	34.1
08	12.70	21.4	17	27.00	35.7
09	14.27	23.0	18	28.60	37.3
10	15.88	24.6	19	30.20	39.1
11	17.47	26.2	20	31.80	40.4

Type G - Environmental cone clamp screened adaptor



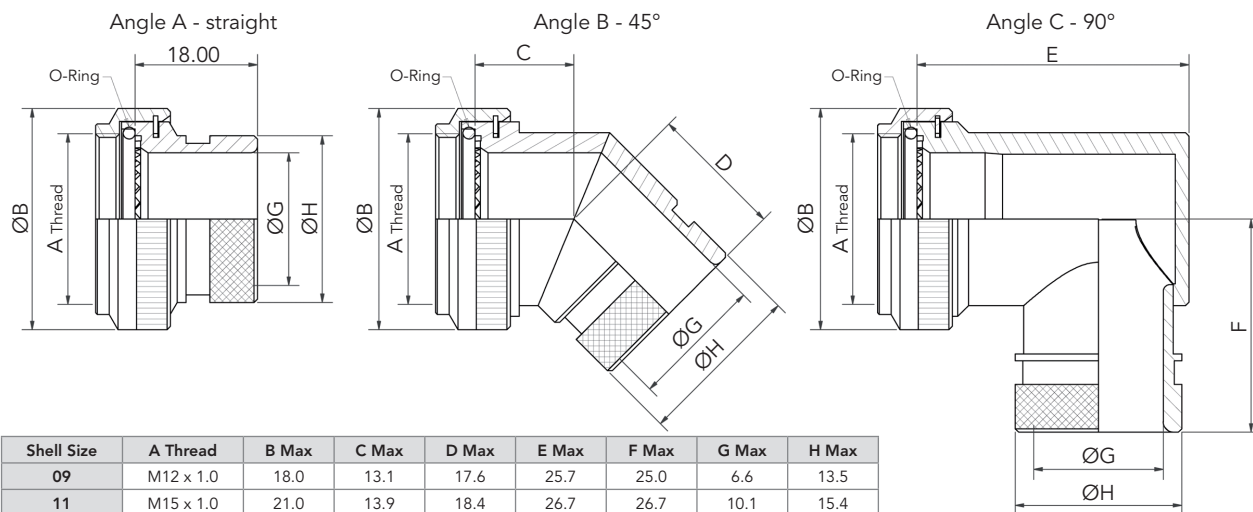
Shell Size	A Thread	B Max	C Max	D Max	E Max	F Max	Max Entry
09	M12 x 1.0	18.0	13.1	30.5	15.8	39.2	-
11	M15 x 1.0	21.0	13.9	30.5	17.6	42.3	04
13	M18 x 1.0	24.5	14.5	32.5	19.0	42.8	06
15	M22 x 1.0	29.0	15.5	40.3	21.5	50.5	10
17	M25 x 1.0	32.5	16.1	43.1	23.1	52.8	12
19	M28 x 1.0	35.5	16.8	47.9	24.5	57.1	12
21	M31 x 1.0	37.0	17.1	47.9	25.3	57.1	16
23	M34 x 1.0	40.0	17.7	56.5	27.5	64.7	16
25	M37 x 1.0	43.5	18.4	56.5	28.3	64.7	16

Entry Size	Cable Range
04	3.2 - 7.9
06	6.4 - 11.1
08	9.8 - 14.3
10	8.9 - 15.9
12	12.7 - 19.1
16	15.9 - 23.8

Note: All dimensions are in millimeters (mm)

Bronze backshells

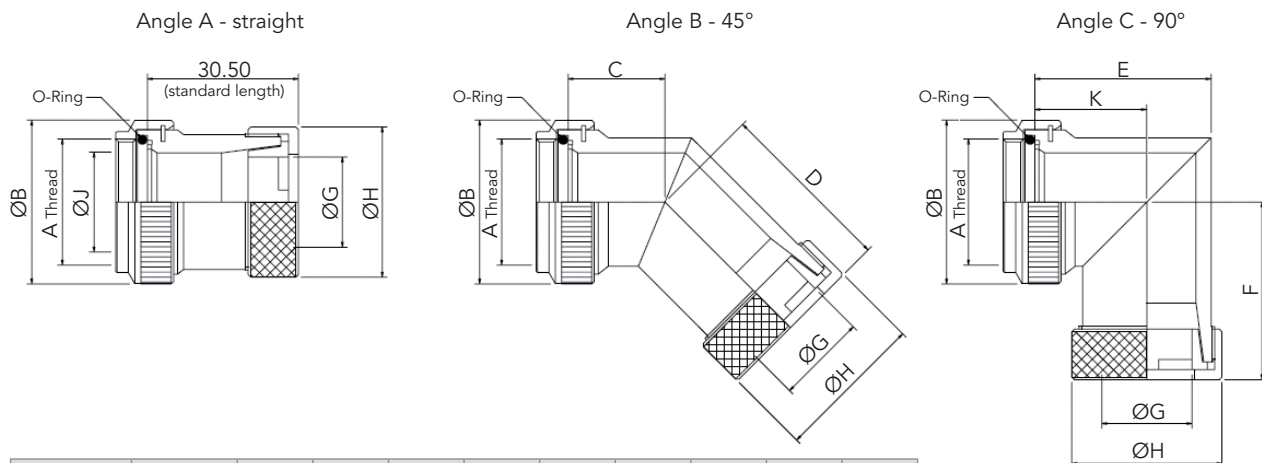
Type P - Adaptor for heat shrink boot



Shell Size	A Thread	B Max	C Max	D Max	E Max	F Max	G Max	H Max
09	M12 x 1.0	18.0	13.1	17.6	25.7	25.0	6.6	13.5
11	M15 x 1.0	21.0	13.9	18.4	26.7	26.7	10.1	15.4
13	M18 x 1.0	24.5	14.5	19.3	31.2	28.2	13.4	19.7
15	M22 x 1.0	29	15.5	19.6	37.2	29.7	16.1	21.3
17	M25 x 1.0	32.5	16.1	20.4	40.2	31.4	19.3	24.5
19	M28 x 1.0	35.5	16.8	20.8	44.7	33.0	21.7	26.5
21	M31 x 1.0	37.0	17.1	21.6	49.2	34.6	25	31.0
23	M34 x 1.0	40.0	17.7	22.5	51.7	36.1	28.1	34.4
25	M37 x 1.0	43.5	18.4	22.9	53.2	37.6	31.3	36.6

Example: JVSA09P00C (angle 90°)

Type X - Cone clamp screened adaptor



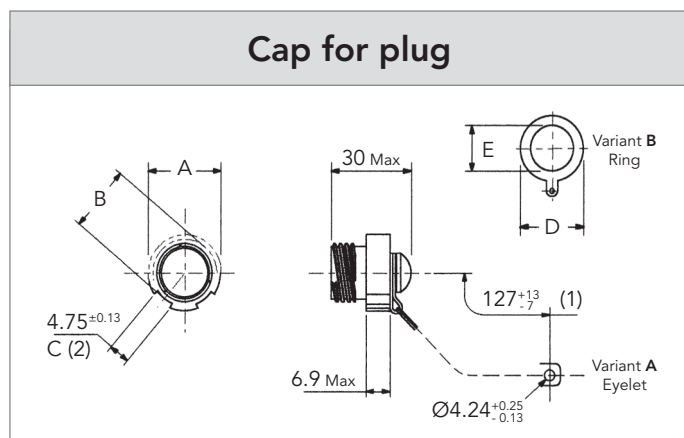
Shell Size	A Thread	B Max	C Max	D Max	E Max	F Max	G Min	H Max	J Min	K ±0.5
09	M12 x 1.0	18.0	12.0	33.3	21.1	35.2	6.9	18.4	6.7	15.5
11	M15 x 1.0	21.0	12.5	34.5	24.2	37.0	9.6	22.0	10.2	17.3
13	M18 x 1.0	24.5	13.1	34.9	27.4	38.5	12.7	24.0	13.5	18.7
15	M22 x 1.0	27.5	13.5	35.8	31.2	40.0	14.8	27.0	16.2	21.3
17	M25 x 1.0	31.0	14.5	36.6	34.3	41.2	17.9	29.5	19.4	22.8
19	M28 x 1.0	34.0	15.5	36.6	37.1	43.3	19.9	33.9	21.8	24.4
21	M31 x 1.0	37.0	16.0	37.7	39.4	44.9	23.1	37.0	25.1	25.1
23	M34 x 1.0	40.0	16.5	38.1	42.5	46.4	26.2	40.8	28.2	26.6
25	M37 x 1.0	43.5	17.1	39.0	45.6	47.9	28.8	43.0	31.4	28.1

Example: JVSA09X00B (angle 45°)

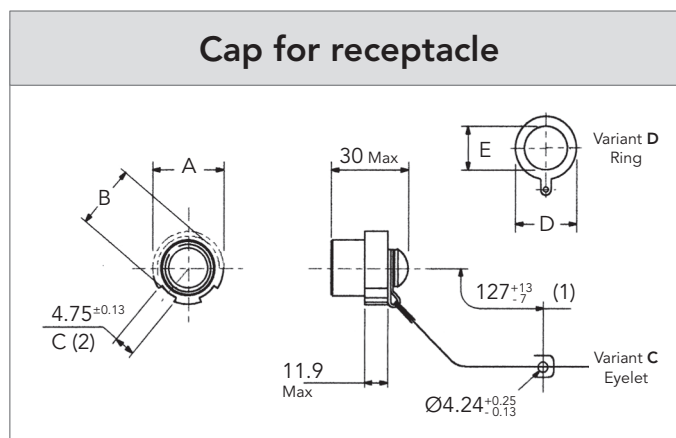
Note: All dimensions are in millimeters (mm)

Bronze caps

Basic Series	JVS	B	09	B	00	A
Accessory style: B: Protective cap						
Shell size: 09, 11, 13, 15, 17, 19, 21, 23, 25						
Variant: A: Cap for plug with eyelet (see drawing below) B: Cap for plug with ring (see drawing below) C: Cap for receptacle with eyelet (see drawing below) D: Cap for receptacle with ring (see drawing below)						
Sub variant: Not applicable						
Material: A: Bronze						



(1) Flexible metal link - (2) Number of notch on A diameter



(1) Flexible metal link - (2) Number of notch on A diameter

Shell size	A Max	B Max	C	Cap for Plug		Cap for Receptacle	
				D Max	E Min	D Max	E Min
09 (A)	21.1	19.20	8	24.20	13.50	26.80	18.40
11 (B)	23.8	21.80		26.80	18.40	31.60	23.00
13 (C)	28.2	26.10	10	30.50	19.80	36.90	26.20
15 (D)	31.4	29.30		31.60	23.00	40.10	29.40
17 (E)	36.5	34.40	12	36.90	26.20	43.20	32.50
19 (F)	39.3	37.20		40.10	29.40	46.40	35.70
21 (G)	42.5	40.50	16	43.20	32.50	49.20	39.10
23 (H)	45.3	43.10		46.40	35.70	52.80	42.10
25 (J)	48.4	46.10	18	49.20	39.10	55.50	45.30

Equivalent to CECC, for information CECC75201002Bxy00A (x = shell size, y = variant)

Example: CECC75201002BAC00A = JVS09C00A

Note: All dimensions are in millimeters (mm)