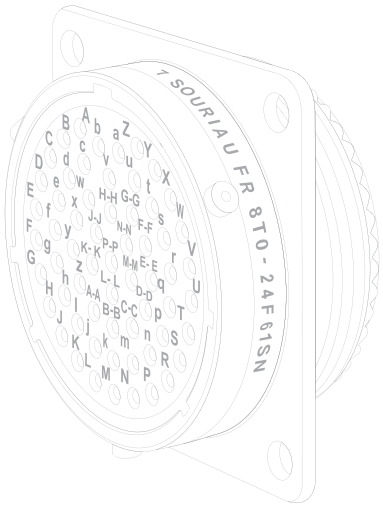
MIL-DTL-38999 Series II low profile bayonet connectors
Souriau 8T series

Powering Business Worldwide



Souriau 8T

MIL-DTL 38999 Series II

Typical applications






Table of contents

Souriau 8T series

Technical specifications

Description

- Low profile / not scoop-proof
- Bayonet locking system
- 11 shell types, 43 layouts
- High density connector from 1 to 128 contacts
- Excellent shock vibration and fluid resistance
- QPL qualified
- Standards:
  - MIL-C 38999 Series II
  - NFC 93422 HE 309
  - VG 96912 Series II
  - PAN 6433-1
  - BS 9522 N 003

Mechanical

Shell
Aluminum alloy

Plating
- Black zinc nickel (Z)
- Nickel (F)
- Olive green cadmium (B)
- Hard anodized (C)

Insulator
Thermoplastic

Grommet or seal
Silicone elastomer

Contact
Copper alloy

Plating
Gold over nickel

Endurance
500 mating cycles

Shock
300g, 3ms duration

Vibration
Random 100 to 1000Hz - 1g2/Hz

Contact retention (min force in N)
Size 22D: 44N Size 16: 110N
Size 20: 67N Size 12: 110N

Electrical

Test voltage (Vrms)

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

Contact resistance
Size 22D: 14.6mΩ
Size 20: 7.3mΩ
Size 16: 3.8mΩ
Size 12: 3.5mΩ

Insulation resistance
≥ 5000MΩ (at 500Vdc)

Contact rating
Size 22D: 5A Size 16: 13A
Size 20: 7.5A Size 12: 23A

Shell continuity (with EMI ring)
- Black zinc nickel plating: 2.5mΩ
- Olive green plating: 2.5mΩ
- Nickel plating: 1mΩ

Environmental

Temperature range
- Zinc nickel plating(Z): -65°C +175°C
- Cadmium plating (B): -65°C +175°C
- Nickel plating (F): -65°C +200°C
- Hard anodized (C): -65°C +200°C

Sealing (mated connectors)
Differential pressure 1 bar
Leakage ≤ 8cm3/h

Salt spray
- MIL-STD 1344 method 1001:
  - 500 hours (plating B & Z)
  - 48 hours (plating F & C)
- NFC 93422: 48 hours (plating F & C)

Damp heat
- MIL-C 38999: 10 cycles (24 hours)
- NFC 93422: 56 days

Resistance to fluids
- To MIL-L 38999:
  MIL-L 7808, MIL-L 23699, MIL-H 5606, MIL-A 8243, MIL-C 87936, MIL-G 3056, MIL-T 5624 (JP5), hydraulic fluids and solvents
- To NFC 93422:
  F 46, F 54, 0/180, H 515, H 542, XH 45

8T series product line

Plugs

Plug with grounding ring

8T5
MS27484T

8T15

Plug without grounding ring

8T6
MS27473T

8T16

PC tail receptacle

Receptacles

Square flange receptacle front mounting

8T0
MS27472T

8T4
MS27499E

8T10

Square flange receptacle rear mounting

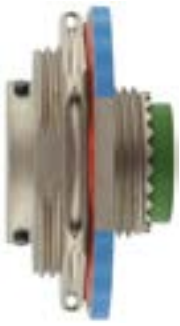
8T3
MS27497T

8T2
MS27508E

In line receptacle

8T1

Jam nut receptacle



8T7
MS27474T

Accessories

Backshells
- Six styles of backshells
- Straight or right angle
- Four platings available

Please see **Page 17**

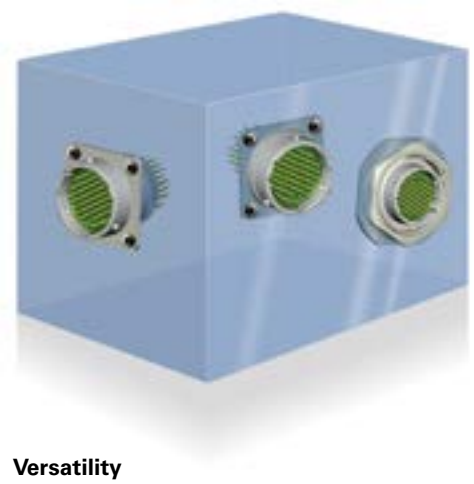
Metallic caps
- Caps for plug or receptacle
- Cord with eyelet or ring
- Two platings available

Souriau 8T series

Overview

Features and benefits

Box solutions

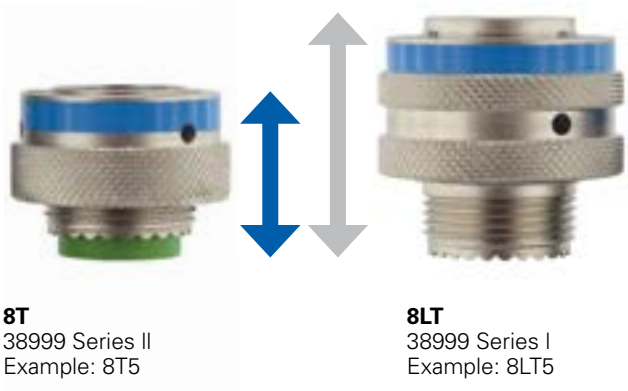


Versatility

- Square flange rear mounting
- Square flange front mounting
- Integrated backshell
- Jam nut receptacle

Space saving

30% Shorter



8T
38999 Series II
Example: 8T5

8LT
38999 Series I
Example: 8LT5

Shell size comparison
8T series is shorter for all shell types compared to 8LT series.

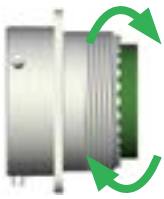
Low profile product range

Short grommet

Receptacle

Integrated backshell

Receptacle **Plug**



With accessory threads

Receptacle **Plug**

Square flange + Rear mounting	Square flange + Rear mounting	Square flange + Front mounting	With grounding ring	Without grounding ring	Square flange + Front mounting	Square flange + Rear mounting	In line	Jam nut	With grounding ring	Without grounding ring
8T2	**8T4**	**8T10**	**8T15**	**8T16**	**8T0**	**8T3**	**8T1**	**8T7**	**8T5**	**8T6**

Contact layouts

Contact #22D Contact #20 Contact #16 Contact #12

08

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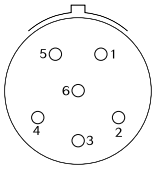

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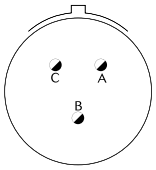

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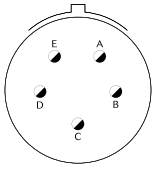

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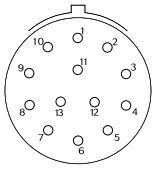

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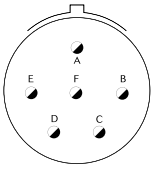

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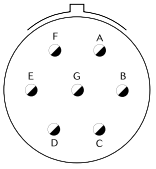

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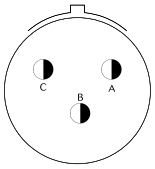

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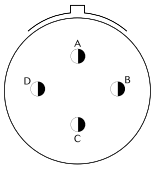

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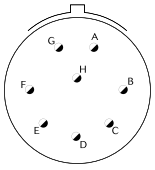

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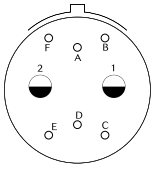

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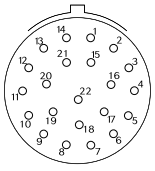

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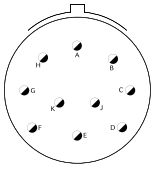

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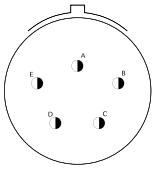

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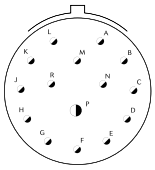

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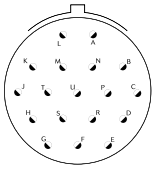

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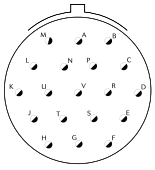

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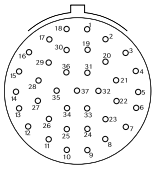

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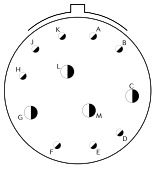

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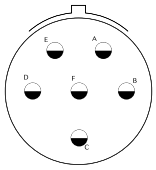

6#12
or 6#12 Coax
Service I

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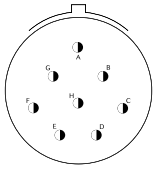

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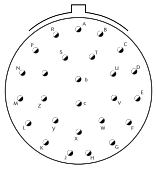

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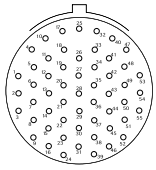
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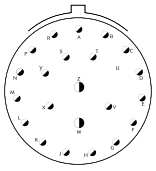


2#16
21#20
Service I

* Layout not available on 8T2 & 8T4 (short grommet). On demand only, please contact us.
** Layout not available on 8T2 & 8T4 (short grommet) / Layout available on other types (long grommet) but only with male insert. For female version or short grommet, please contact us.

Souriau 8T series

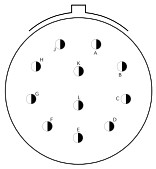
Contact layouts

Contact layouts

Contact #22D Contact #20 Contact #16 Contact #12

18

11*



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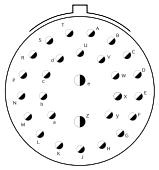

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Service I

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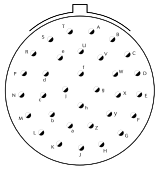

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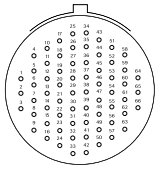

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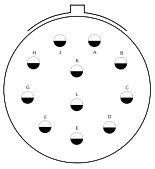

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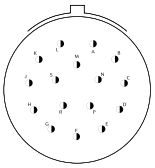

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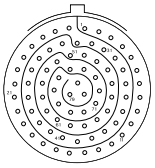

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Service M

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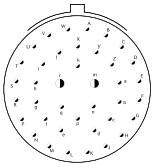

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2#16
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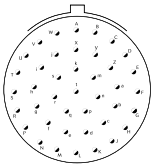

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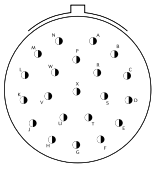

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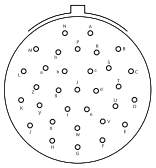

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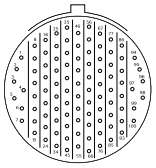

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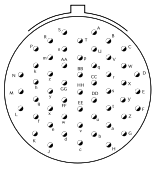

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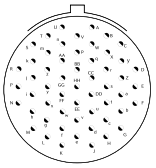

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Service I

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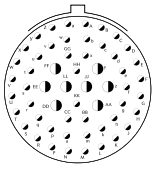

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48#20
Service I

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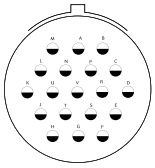

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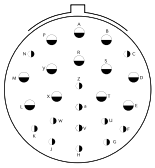

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12#12
Service I

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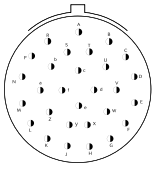

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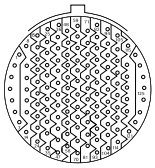
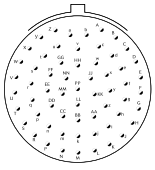


128#22D
Service M

61*



61#20
Service I

* Layout not available on 8T2 & 8T4 (short grommet). On demand only, please contact us.

Contact layouts (matrix)

Shell size	Layout	Service	8T	MIL-DTL-38999 (QPL)	HE309	Number of contacts	#22D	#20	#16	#12
08	08-35	M	OK	Q	Q	6	6			
	08-98	I	OK	Q	Q	3		3		
10	10-05	I	OK	Q (1)		5		5		
	10-35	M	OK	Q	Q	13	13			
	10-98	I	OK	Q	Q	6		6		
	10-99	I	OK	Q		7		7		
12	12-03	I	OK	Q		3			3	
	12-04	I	OK	Q (1)	Q	4			4	
	12-08	I	OK			8		8		
	12-26	M	OK			8	6			2
	12-35	M	OK	Q	Q	22	22			
	12-98	I	OK	Q	Q	10		10		
14	14-05	II	OK	Q (1)	Q	5			5	
	14-15	I	OK	Q (1)		15		14	1	
	14-18	I	OK	Q		18		18		
	14-19	I	OK		Q	19		19		
	14-35	M	OK	Q	Q	37	37			
	14-97	I	OK	Q	Q	12		8	4	
16	16-06	I	OK	Q	Q	6		6 or 6 Coax		
	16-08	II	OK	Q (1)	Q	8			8	
	16-26	I	OK	Q (1)	Q	26		26		
	16-35	M	OK	Q	Q	55	55			
	16-99	I	OK	Q	Q	23		21	2	
18	18-11	II	OK	Q (1)	Q	11			11	
	18-28	I	OK	Q		28		26	2	
	18-32	I	OK	Q	Q	32		32		
	18-35	M	OK	Q	Q	66	66			
20	20-11	I	OK			11				11
	20-16	II	OK	Q	Q	16			16	
	20-35	M	OK	Q	Q	79	79			
	20-39	I	OK	Q (2)	Q	39		37	2	
	20-41	I	OK	Q	Q	41		41		
22	22-21	II	OK	Q (1)	Q	21			21	
	22-32	I	OK	Q		32		32		
	22-35	M	OK	Q	Q	100	100			
	22-53	I	OK		Q	53		53		
	22-55	I	OK	Q		55		55		
24	24-04	I	OK	Q		56		48	8	
	24-19	I	OK	Q (1)	Q	19				19
	24-24	II	OK	Q (1)		24			12	12
	24-29	I	OK	Q (1)	Q	29			29	
	24-35	M	OK	Q	Q	128	128			
	24-61	I	OK	Q (1)	Q	61		61		

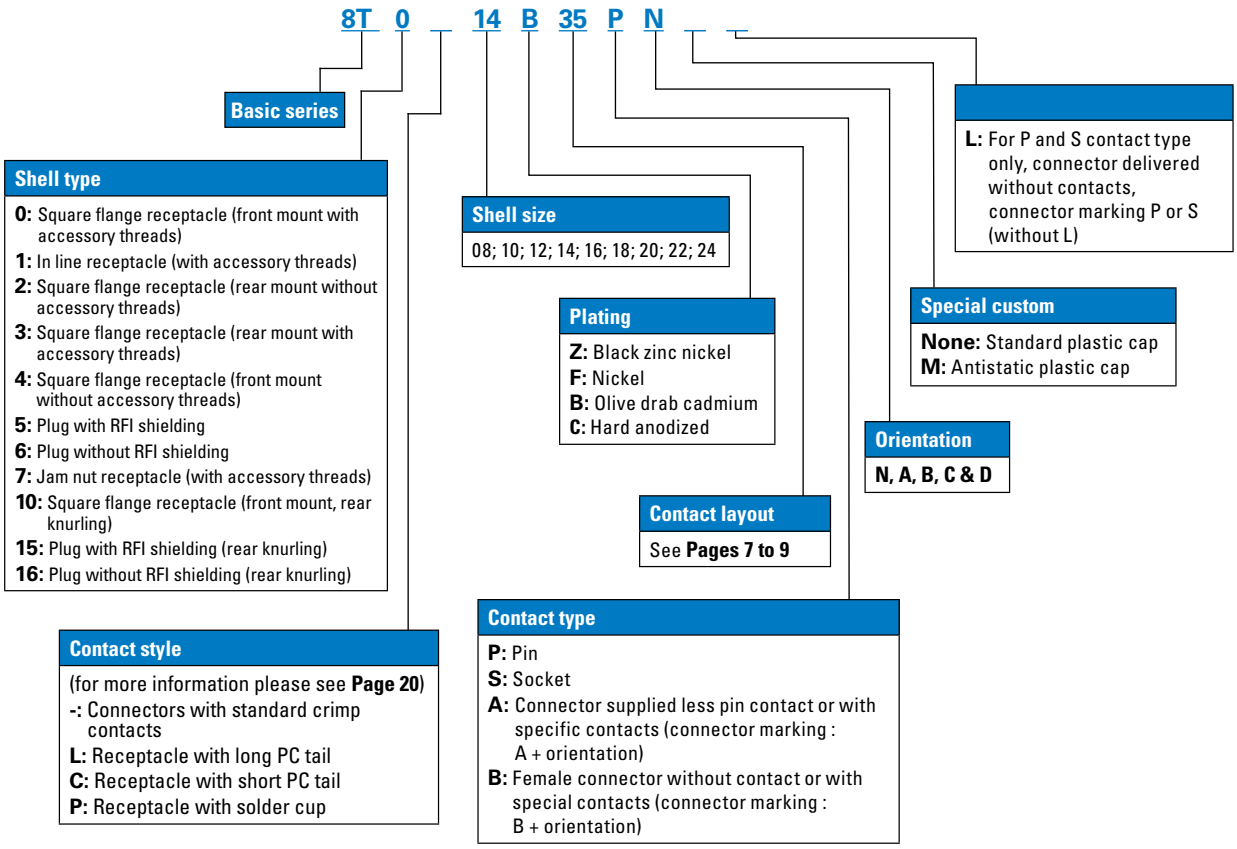
OK Souriau layout
Q Souriau layout & layout according to corresponding norm
(1) Not qualified for short grommet version (8T2 & 8T4)
(2) Not qualified for 8T4 short grommet version

Souriau 8T series

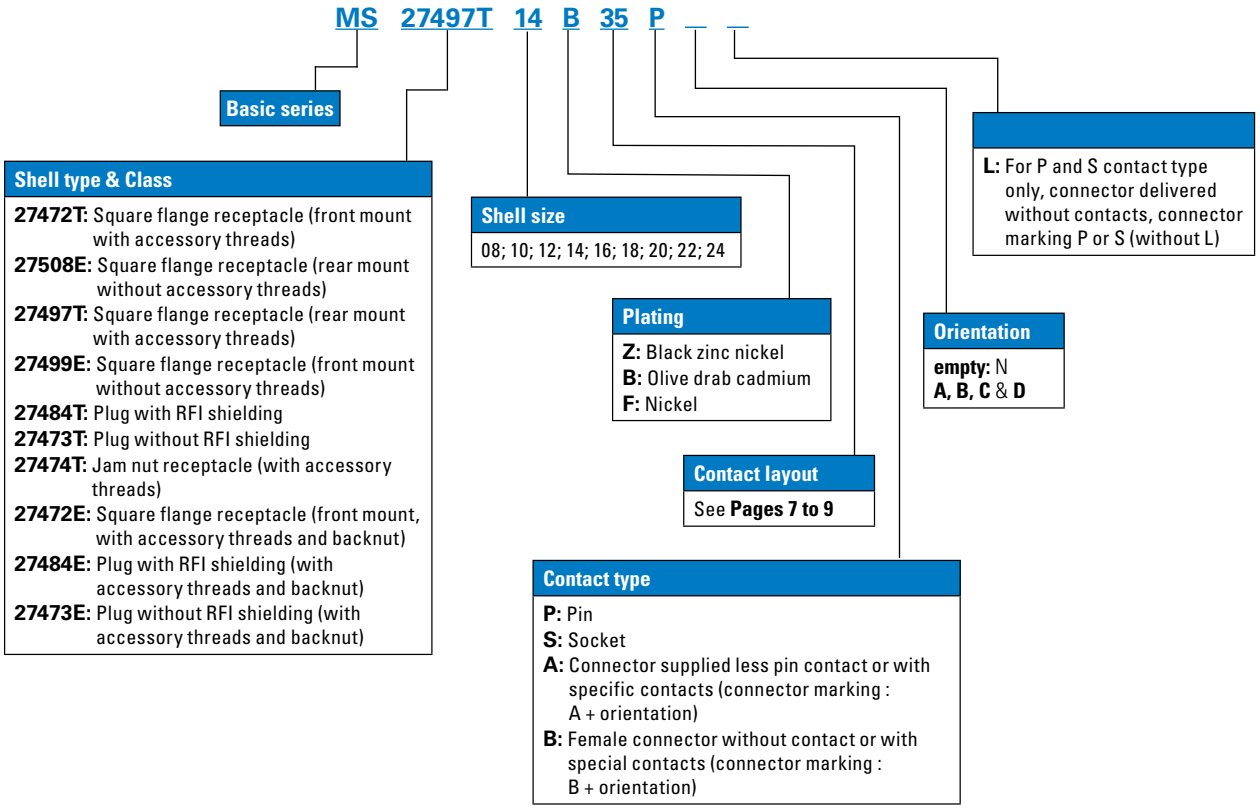
Low profile bayonet connectors

Ordering information

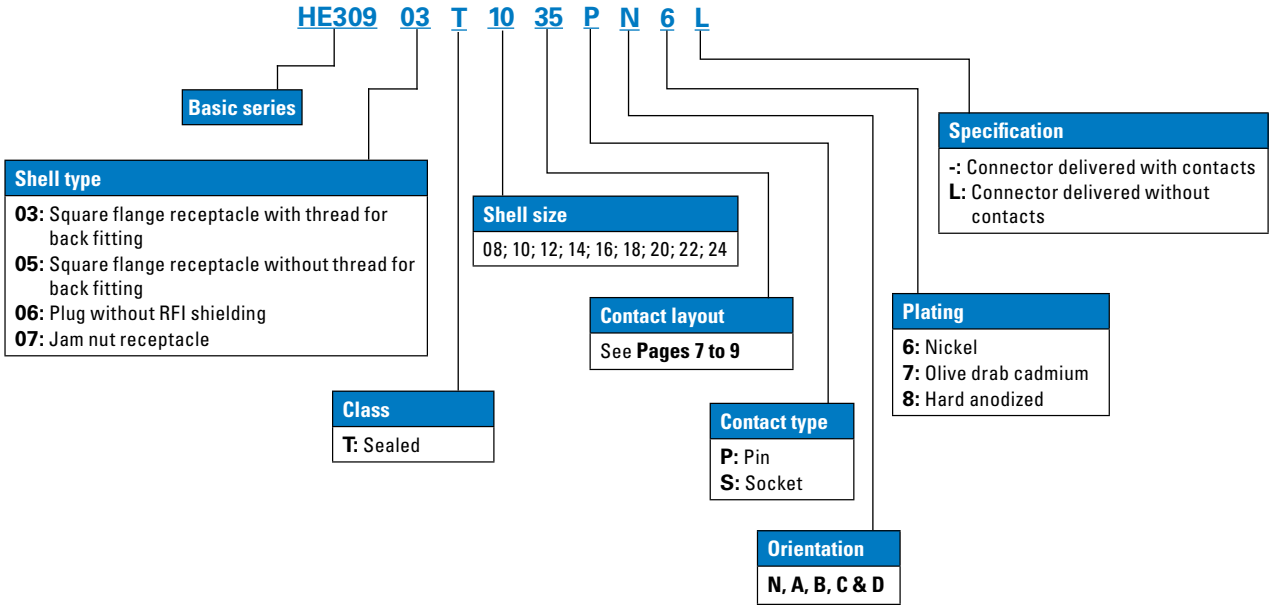
Souriau part number



MIL-DTL-38999 series II part number



HE309 series part number



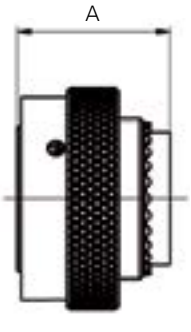
Souriau 8T series

Low profile bayonet connectors

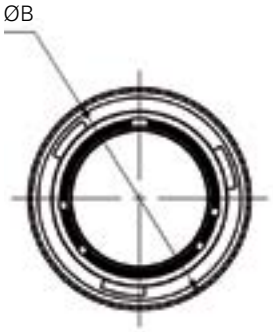
Dimensions

Plug 8T5 type & 8T15 type

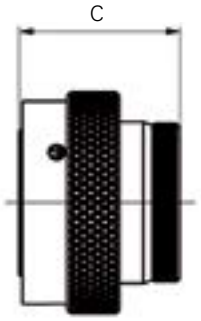
8T5 type
Plug with
accessories thread,
with grounding ring



8T5 type



8T5/8T15 types



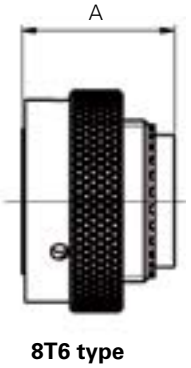
8T15 type

8T15 type
Plug with
integrated backshell,
with grounding ring

Shell size		08	10	12	14	16	18	20	22	24
A	Min.	21.26	21.26	21.26	21.26	21.26	21.26	21.26	21.26	21.26
	Max.	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59
ØB $^{+0}_{-0.15}$		19	21.75	26.10	29.30	32.45	35.25	38.80	41.60	44.80
C	Min.	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38
	Max.	23.57	23.57	23.57	23.57	23.57	23.57	23.57	23.57	23.57

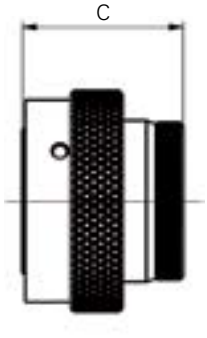
Plug 8T6 type & 8T16 type

8T6 type
Plug with
accessories thread,
without grounding ring



8T6 type

8T6/8T16 types



8T16 type

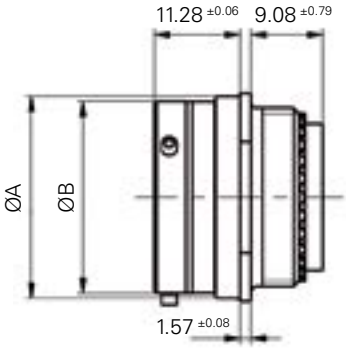
8T16 type
Plug with
integrated backshell,
without grounding ring

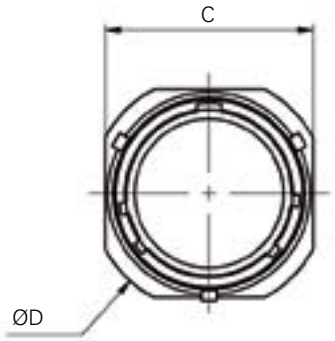
Shell size		08	10	12	14	16	18	20	22	24
A	Min.	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31	21.31
	Max.	22.65	22.65	22.65	22.65	22.65	22.65	22.65	22.65	22.65
ØB $^{\pm 0.1}$		19.03	21.78	26.13	29.33	32.48	35.28	38.83	41.63	44.83
C	Min.	23.43	23.43	23.43	23.43	23.43	23.43	23.43	23.43	23.43
	Max.	23.63	23.63	23.63	23.63	23.63	23.63	23.63	23.63	23.63

Note: All dimensions are in millimeters (mm)

Dimensions

In-line receptacle 8T1 type

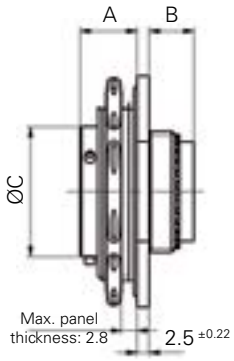


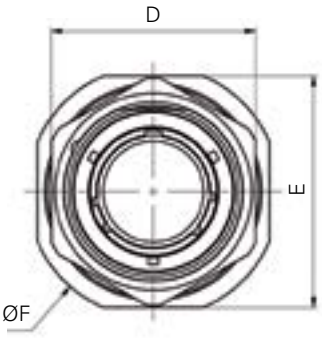


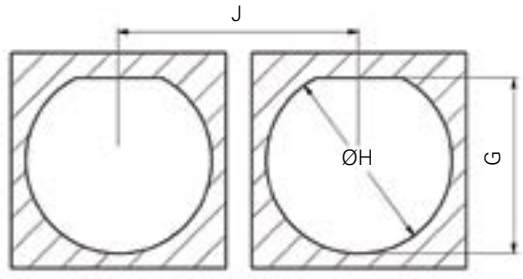
8T1 type
In line receptacle
with accessories thread

Shell size	08	10	12	14	16	18	20	22	24
ØA ±0.07	13.19	16.14	20.43	23.65	26.78	29.95	33.13	36.30	39.50
ØB ±0.08	11.96	14.93	19.00	22.17	25.35	28.52	31.70	34.87	38.05
C ±0.25	14.38	18.68	21.98	25.38	27.58	31.11	34.38	37.78	41.78
ØD ±0.27	17.80	22.10	25.40	28.80	31.00	34.40	37.80	41.20	45.20

Jam nut receptacle 8T7 type







Panel cut-out

8T7 type
Jam nut receptacle
with accessories thread

Shell size	08	10	12	14	16	18	20	22	24
A ±0.12	11.13	11.13	11.13	11.13	11.13	11.13	11.79	11.79	11.79
B ±0.99	8.36	8.36	8.36	8.36	8.36	8.36	7.70	7.70	7.70
ØC ±0.08	12.01	14.98	19.05	22.22	25.40	28.57	31.75	34.92	38.10
D	27.40	30.61	33.75	36.96	40.10	43.31	46.45	51.23	54.41
E ±0.37	31.85	35.02	38.20	41.37	45.34	48.10	51.30	54.46	57.63
ØF ±0.32	35.05	38.24	41.42	44.59	49.36	51.35	54.50	57.55	60.85
G $^{0}_{-0.25}$	21.08	24.26	27.53	30.68	33.86	37.06	40.03	43.21	46.38
ØH $^{+0.25}_{0}$	22.45	25.58	28.80	31.98	35.15	38.28	41.50	44.68	47.85
J Min.	32.13	35.71	39.29	43.26	46.81	50.42	53.95	59.51	63.53
Max tightening torque ±0.5 **N.m**	5.5	7	8	9	10	12	13	14	17

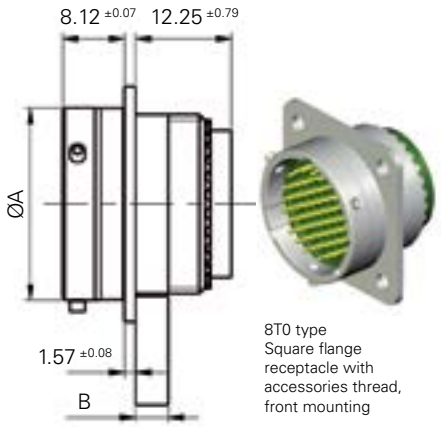
Note: All dimensions are in millimeters (mm)

Souriau 8T series

Low profile bayonet connectors

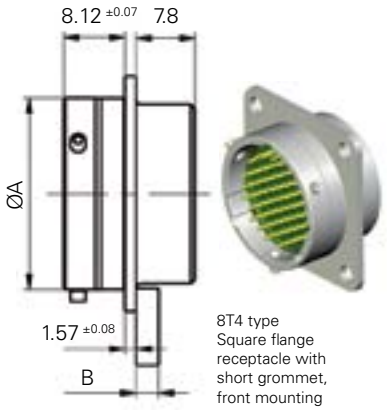
Dimensions

Square flange receptacle 8T0 type, 8T4 type & 8T10 type



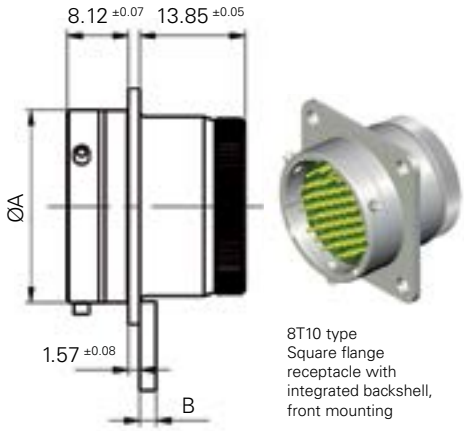
8T0 type
Square flange receptacle with accessories thread, front mounting

8T0 type



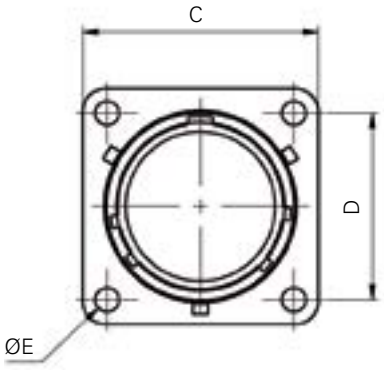
8T4 type
Square flange receptacle with short grommet, front mounting

8T4 type

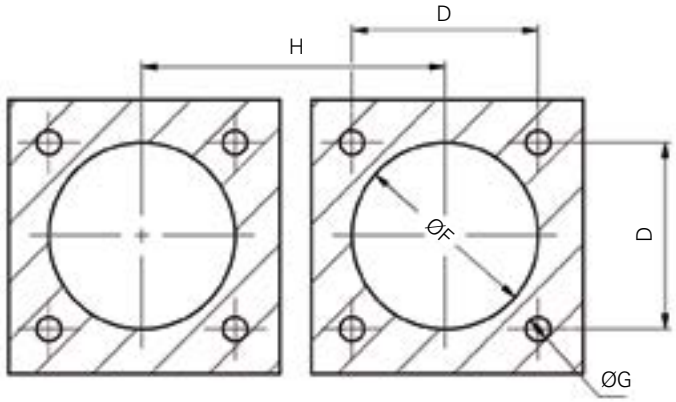


8T10 type
Square flange receptacle with integrated backshell, front mounting

8T10 type



8T0/8T4/8T10 types



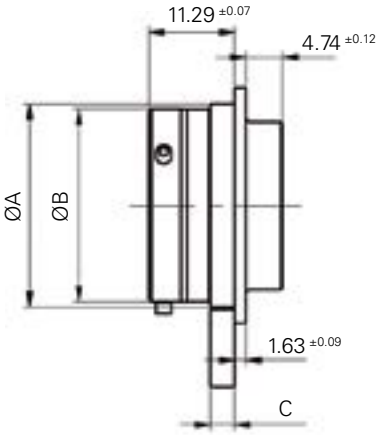
Panel cut-out

Shell size		08	10	12	14	16	18	20	22	24
ØA ±0.08		12.96	14.93	19.00	22.17	25.35	28.52	31.70	34.87	38.05
B Max.		3.71	3.71	3.71	3.71	3.71	3.71	4.27	4.27	4.27
C	**Min.**	20.52	23.73	26.11	28.50	30.86	33.22	36.42	39.60	42.77
	Max.	21.03	24.23	26.59	28.98	31.34	33.73	36.91	40.08	43.26
D		15.09	18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.92
ØE	**Min.**	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.71
	Max.	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.99
ØF		13.11	15.88	19.05	23.01	25.81	28.98	32.16	34.93	37.69
ØG ±0.15		3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.91	3.91
H Min.		21.45	24.65	27.00	29.80	32.95	36.15	38.90	42.10	45.25

Note: All dimensions are in millimeters (mm)

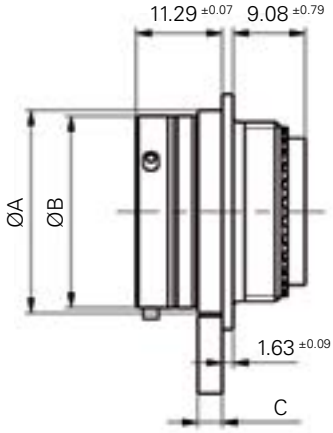
Dimensions

Square flange receptacle 8T2 type & 8T3 type



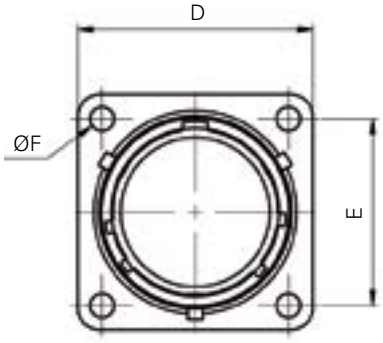
8T2 type
Square flange receptacle with short grommet, rear mounting

8T2 type

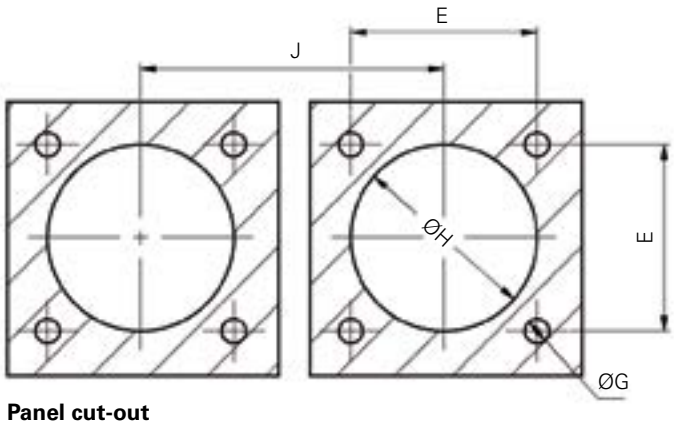


8T3 type
Square flange receptacle with accessories thread, rear mounting

8T3 type



8T2/8T3 types



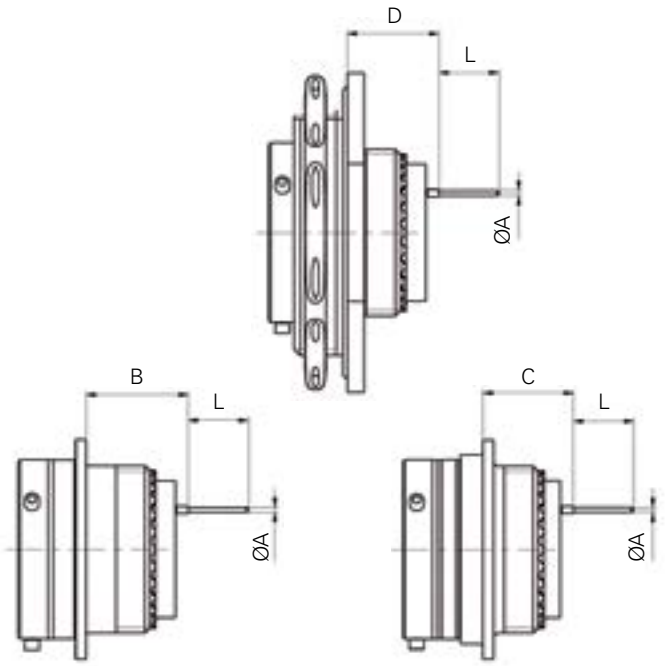
Panel cut-out

Shell size		08	10	12	14	16	18	20	22	24
ØA ±0.08		13.25	16.20	20.49	23.71	26.84	30.01	33.19	36.36	39.56
ØB ±0.09		12.02	14.99	19.06	22.25	25.41	28.58	31.76	34.93	38.11
C Max.		3.71	3.71	3.71	3.71	3.71	3.71	4.27	4.27	4.27
D	Min.	20.57	23.78	26.16	28.55	30.91	33.27	36.47	39.65	42.82
	Max.	21.10	24.31	26.69	29.08	31.71	34.10	37.28	40.45	43.63
E		15.09	18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.92
ØF	Min.	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.71
	Max.	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.99
G ±0.15		3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.91	3.91
ØH Min.		14.15	17.32	21.69	24.87	28.04	31.22	34.39	37.57	40.74
J Min.		21.45	34.65	27.00	29.80	32.95	36.15	38.90	42.10	45.25

Note: All dimensions are in millimeters (mm)

Dimensions

Receptacle with straight PC tail contacts

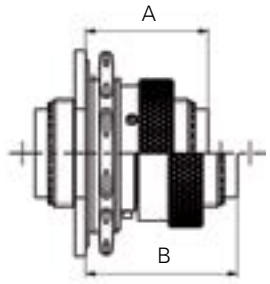


	Contact style			Shell size	
	Size	**Type**	**Length**	**08 to 18**	**20 to 24**
L $_{-0.20}$	#22D	M / F	L	8.50	8.50
	#22D	M / F	C	4.00	4.00
	#20 / #16 / #12	M / F	C	5.10	5.10
ØA $_{-0.05}$	#22D / 20	M / F	C / L	0.70	0.70
	#16	M / F	C / L	1.15	1.15
	#12	M / F	C / L	2.05	2.05
B 8T0/8T10 types	#22D	M	C / L	15.05	15.05
	#22D	F	L	15.05	15.05
	#20 / #16	M	C	15.22	15.22
	#12	M	C	15.22	15.22
C 8T3 type	#22D	M	C / L	13.40	13.40
	#22D	F	L	13.40	13.40
	#20 / #16	M	C	13.57	13.57
	#12	M	C	13.57	13.57
D 8T7 type	#22D	M	C / L	13.61	12.95
	#22D	F	L	13.61	12.95
	#20 / #16	M	C	13.78	13.12
	#12	M	C	13.78	13.78

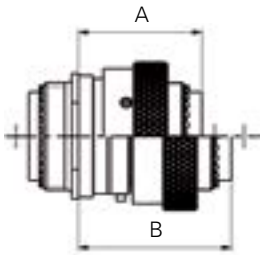
M: Male contact, **F:** Female contact, **C:** Short PC tail, **L:** Long PC tail

Mated/unmated dimensions

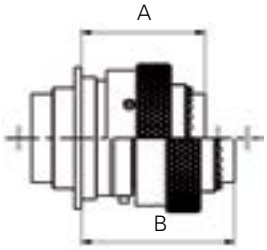
8T7 type with 8T5/8T15/8T6/8T16 types



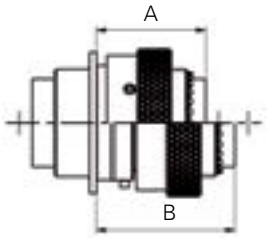
8T1 type with 8T5/8T15/8T6/8T16 types



8T2/8T3 types with 8T5/8T15/8T6/8T16 types



8T0/8T4/8T10 types with 8T5/8T15/8T6/8T16 types

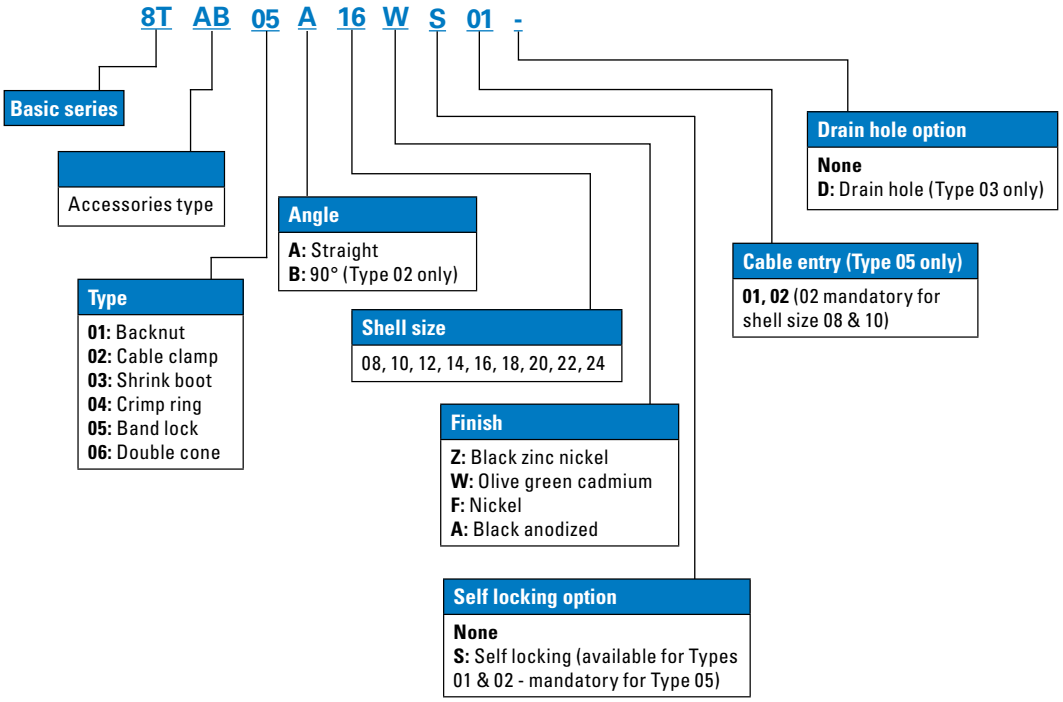


	8T7 type jam nut receptacle								8T1 type in-line receptacle 8T2/8T3 types square flange receptacle								8T0/8T4/8T10 types square flange receptacle							
	With plug 8T5		**With plug 8T6**		**With plug 8T15**		**With plug 8T16**		**With plug 8T5**		**With plug 8T6**		**With plug 8T15**		**With plug 8T16**		**With plug 8T5**		**With plug 8T6**		**With plug 8T15**		**With plug 8T16**	
Shell size	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**	**A Max.**	**B Max.**
08 to 18	27.68	33.86	27.74	33.92	28.65	34.83	28.71	34.89	27.77	33.95	27.83	34.01	28.74	34.92	28.80	34.98	24.60	30.78	24.66	30.64	25.57	31.75	25.63	31.81
20 to 24	28.34	34.52	28.40	34.58	29.31	35.49	29.37	35.55	27.77	33.95	27.83	34.01	28.74	34.92	28.80	34.98	24.60	30.78	24.66	30.64	25.57	31.75	25.63	31.81

Note: All dimensions are in millimeters (mm)

Aluminum backshells

Ordering information

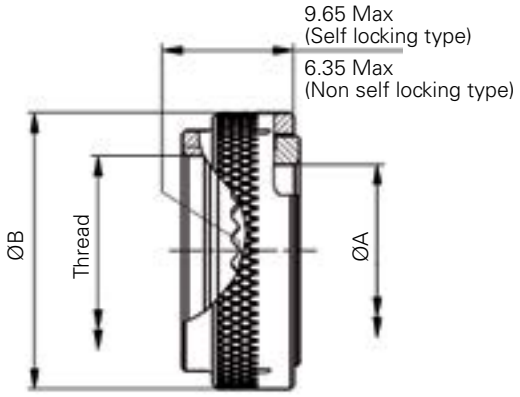


Assembly instructions

Please see **Page 24** for assembly instructions and band-it.

Dimensions

Aluminum backshell Type 01 - Backnut



Shell size	ØA Min	ØB Max
08	6.7	17.9
10	9.95	20.9
12	12.85	24.3
14	17.0	27.9
16	19.25	31.3
18	21.7	35.3
20	24.7	38.1
22	27.8	41.5
24	32.0	44.5

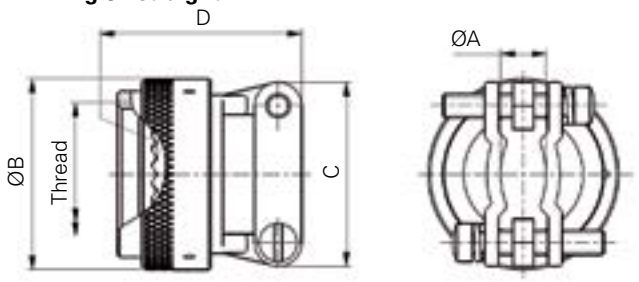
Thread: See **Page 20** for information.

Note: All dimensions are in millimeters (mm)

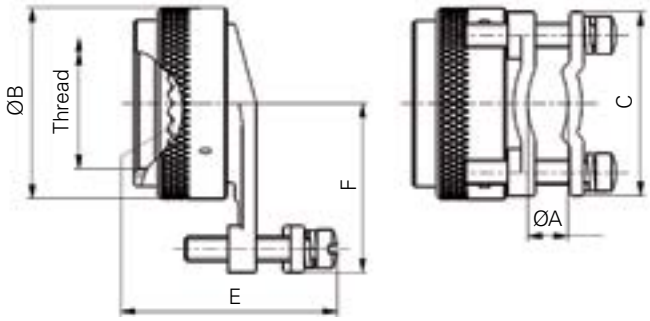
Aluminum backshells

Aluminum backshell Type 02 - Cable clamp

A Angle - straight



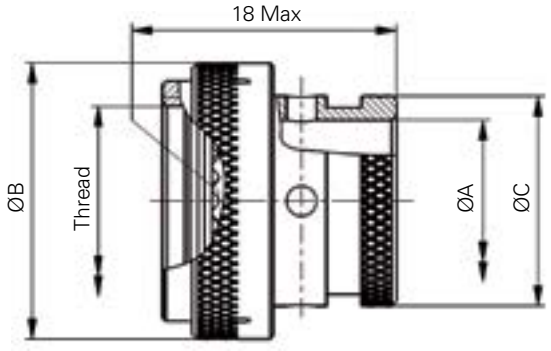
B Angle - 90°



	ØA						
Shell size	**Min**	**Max**	**ØB Max**	**C Max**	**D Max**	**E Max**	**F Max**
08	2.49	5.94	17.9	21.5	23.1	29.5	20
10	3.89	5.94	20.9	21.5	23.1	29.5	21.5
12	4.83	8.33	24.3	24.5	25.6	31.5	23.5
14	6.60	11.61	27.9	27.5	26.9	35.8	25.5
16	7.19	15.6	31.3	31.5	29.4	40.1	27.5
18	8.26	16.1	35.3	35.5	35.8	40.6	30.5
20	8.71	17.73	38.1	37	38.3	42.7	31.5
22	9.68	20.9	41.5	40.5	42.1	46.2	34.5
24	10.62	21.67	44.5	45	44.7	49	36.5

Thread: See **Page 20** for information.

Aluminum backshell Type 03 - Shrink boot



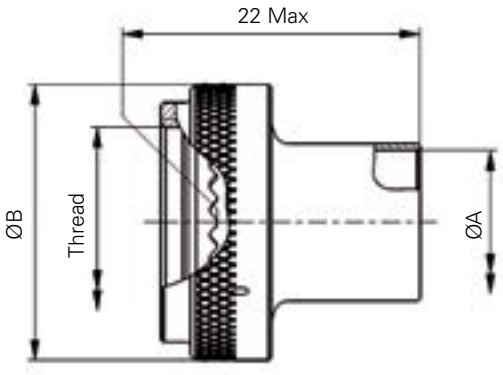
Shell size	**ØA Min**	**ØB Max**	**C Max**
08	6.7	19.0	11.3
10	9.95	21.5	14.9
12	12.85	25.3	17.8
14	16.05	29.1	21.27
16	19.2	31.7	24.3
18	21.5	35.5	26.4
20	24.7	39.3	30.8
22	27.8	41.8	34.1
24	31	46.9	36.6

Thread: See **Page 20** for information.

Note: All dimensions are in millimeters (mm)

Aluminum backshells

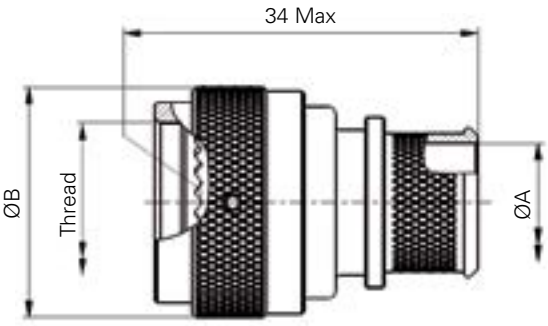
Aluminum backshell Type 04 - Crimp ring



Shell size	ØA Min	ØB Max
08	6	17.9
10	8.2	20.9
12	10.5	24.3
14	13.6	27.9
16	16.9	31.3
18	20	34.3
20	23.2	38.1
22	26.1	41.5
24	28.1	44.4

Thread: See **Page 20** for information.

Aluminum backshell Type 05 - Band lock

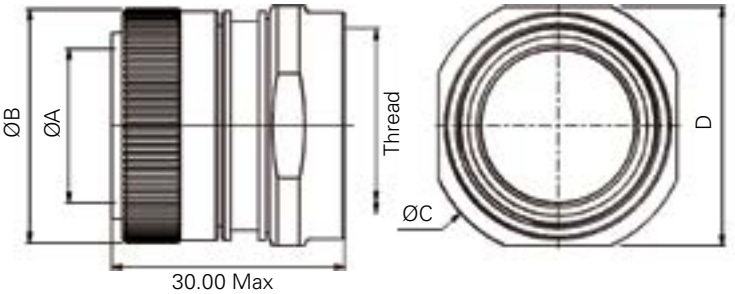


	ØA Max - Entry size		
Shell size	01	02	ØB Max
08	-	6.6	17.9
10	-	8	24.9
12	8	11.2	29.3
14	11.2	14.4	32.4
16	12.8	16	35.6
18	16	19.1	38.4
20	16	20.7	41.6
22	17.6	23.9	44.8
24	19.1	25.5	47.9

Thread: See **Page 20** for information.

Aluminum backshell Type 06 - Double cone

HE 308 standard - Screen termination and heat shrink boot



Shell size	ØA$^{\pm 0.07}$	ØB$^{\pm 0.12}$	ØC$^{\pm 0.12}$	D$^{\pm 0.07}$
08	7.1	15.55	19.35	16.7
10	10.25	18.45	23.35	20.7
12	13.05	21.85	25.35	22.7
14	15.25	25.05	28.35	25.7
16	18.45	28.05	31.35	28.7
18	20.65	31.05	34.35	31.7
20	23.85	34.45	38.35	35.7
22	26.95	37.45	41.35	38.7
24	30.15	40.75	44.35	41.7

Thread: See **Page 20** for information.

Note: All dimensions are in millimeters (mm)

Aluminum backshells

Recommended installation torque

Shell Size	Installation torque (inch-pounds)
08 to 18	40
20 to 24	80

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

Thread information

Shell size	UNEF Thread
08	7/16-28 2B
10	9/16-24 2B
12	11/16-24 2B
14	13/16-20 2B
16	15/16-20 2B
18	11/16 -18 2B
20	13/16 -18 2B
22	15/16 -18 2B
24	17/16 -18 2B

Contacts

Crimp contacts

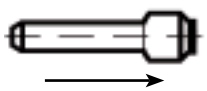
			Conductor section				External Ø over insulator		Souriau Part number	MIL-DTL-38999 contacts	
			AWG		mm²						
Contact size	**Contact type**	**Ø**	**Min**	**Max**	**Min**	**Max**	**Min**	**Max**	without color code	**Part number**	**Color code**
#22D	Pin	0.76	26	22	0.12	0.40	0.71	1.37	85990702JJ	M39029/58-360	Black/Blue/Orange
	Socket	0.76	26	22	0.12	0.40	0.71	1.37	85990710900	M39029/57-354	Yellow/Green/Orange
#20	Pin	1.00	24	20	0.21	0.60	1.02	2.11	85990703SA	M39029/58-363	Orange/Blue/Orange
	Socket	1.00	24	20	0.21	0.60	1.02	2.11	85990711900	M39029/57-357	Purple/Green/Orange
#16	Pin	1.60	20	16	0.60	1.34	1.65	2.77	85990704MJ	M39029/58-364	Yellow/Blue/Orange
	Socket	1.60	20	16	0.60	1.34	1.65	2.77	85990712900	M39029/57-358	Grey/Green/Orange
#12	Pin	2.40	14	12	1.91	3.18	2.46	3.61	85990705MJ	M39029/58-365	Green/Blue/Orange
	Socket	2.40	14	12	1.91	3.18	2.46	3.61	85990713900	M39029/57-359	White/Green/Orange

Straight PC tail contacts

Contact size	Contact type	Contact length	Part number
#22D	Pin	L: Long PC tail	85990720900
		C: Short PC tail	85990730900
#20	Pin	L: Long PC tail	85990771900
		C: Short PC tail	85990724900
#16	Pin	L: Long PC tail	85997496A900
		C: Short PC tail	85990726900
#12	Pin	C: Short PC tail	85997711900

Filler plugs

Contact size	MS Part number (Rev. N)	Color	Souriau Part number	Color
#22D	MS27488-22-2	Black	8660-212	Black
#20	MS27488-20-2	Red	8522-389A	Red
#16	MS27488-16-2	Green	8522-390A	Blue
#12	MS27488-12-2	Orange	8522-391A	Yellow



Direction of introduction in grommet

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

Tooling

Insertion and extraction tools

Contact size	Material	Part number MIL standard	Color Insertion	Color Extraction
#22D	Plastic	M81969/14-01	Green	White
#20	Plastic	M81969/14-10	Red	Orange
#16	Plastic	M81969/14-03	Blue	White
#12	Plastic	M81969/14-04	Yellow	White

Crimping tools

		Wire sizes		Plier M22520/1-01	Plier M22520/2-01 (Souriau 8476-01)
Contact size	**Contact type**	**mm²**	**AWG**	**Turret part number**	**Locator part number**
#22D	Pin	0.38 0.21 0.15 0.095	22 24 26 28	-	M22520/2-09
	Socket	0.38 0.21 0.15 0.095	22 24 26 28	-	M22520/2-06
#20	Pin	0.60 0.38 0.21	20 22 24	M22520/1-04	M22520/2-10
	Socket	0.60 0.38 0.21	20 22 24	M22520/1-04	M22520/2-10
#16	Pin	1.34 0.93 0.60	16 18 20	M22520/1-04	-
	Socket	1.34 0.93 0.60	16 18 20	M22520/1-04	-
#12	Pin	3.18 1.91	14 12	M22520/1-04	-
	Socket	3.18 1.91	14 12	M22520/1-04	-

Backshell tightening tools

8522-9267A

Backshell tightening pliers,
part number: 8522-9267A

Tightening support

8599-0802

Part number: 8599-0802
This tool is made up of dummy receptacle housings of all 9 sizes for all key polarization and secures free connectors during wiring and fitting of rear accessories.

Tightening of rear accessories

Shell size	8	10	12	14	16	18	20	22	24
Max torque in daN.m	0.62	0.62	0.62	0.62	0.62	0.62	1.24	1.24	1.24

Slackening tools

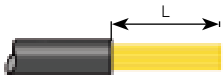
8498-04

Strap clamp,
part number: 8498-04
Spare strap,
part number: 8498-103

Wiring instruction

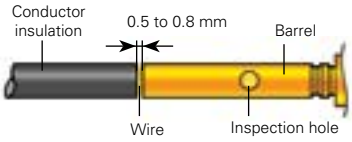
Cable preparation and wire stripping

Contact size	#22D	#20	#16	#12
L	4	6	6	6



L = length of wire stripping

Insertion of wire in contact barrel



When inserting the stripped wire into the contact barrel, check that no strands are left outside and that the wire is visible through the wire inspection hole in the barrel.

Important:
- Slide any accessories over wire strands before carrying out the following operations.
- Contacts are inserted and extracted from the rear of the connector.

Insertion of the contacts

1 - Engage the crimp cable / contact assembly into the longitudinal slot of the plastic tool (colored tip). Slide the tool down the cable until the tip of the tool abuts the contact retention shoulder.

2 - Introduce the contact into the required contact cavity in the insulator, pushing tool axially, until the contact snaps into position in clip.

3 - Withdraw the tool from rear. Check that the contact is firmly locked by pulling wire gently. When connector is fully loaded, check the position of contact tips. They should all be in the same plane. Note: For larger sizes of cable, which are stiff enough, manual insertion without the tool is preferable.

Extraction of the contacts

1 - Engage the appropriate cable into the longitudinal slot of the tool with the white tip towards connector.

2 - Slide the tool down towards the contact. Insert the tool in the insulator until it abuts the contact shoulder.

3 - Holding the tool-contact and cable assembly together, remove them simultaneously.

Gaskets

	Part numbers	
Shell size	**For receptacle Type 0**	**For receptacle Type 7**
08	8525 1431	AS3582-022
10	8525 1432	AS3582-024
12	8525 1433	AS3582-026
14	8525 1434	AS3582-028
16	8525 1435	AS3582-029

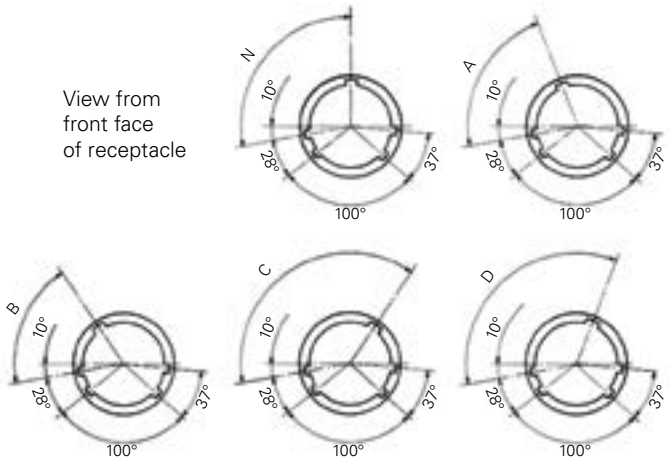
	Part numbers	
Shell size	**For receptacle Type 0**	**For receptacle Type 7**
18	8525 1436	AS3582-030
20	8525 1437	AS3582-031
22	8525 1438	AS3582-032
24	8525 1439	AS3582-033

Orientations

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

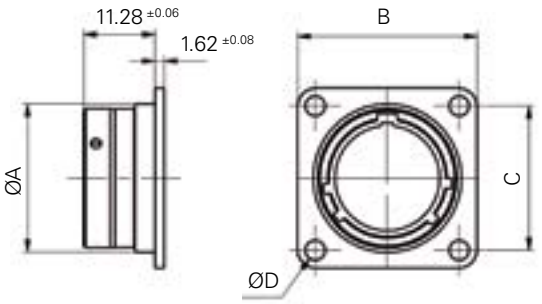
	Angles (degrees)				
Shell size	**N**	**A**	**B**	**C**	**D**
08	100	82	-	-	118
10	100	86	72	128	114
12	100	80	68	132	120
14	100	79	66	134	121
16	100	82	70	130	118
18	100	82	70	130	118
20	100	82	70	130	118
22	100	85	74	126	115
24	100	85	74	126	115

View from front face of receptacle



Dummy receptacles

		B			D		Part Numbers	
Shell size	**A**	**Min.**	**Max.**	**C**	**Min.**	**Max.**	**Olive green cadmium plating**	**Nickel plating**
08	13.24	20.57	21.10	15.09	3.08	3.30	8T3-08GUR	8T3-08FUR
10	16.19	23.78	24.31	18.26	3.08	3.30	8T3-10GUR	8T3-10FUR
12	20.48	26.16	26.69	20.62	3.08	3.30	8T3-12GUR	8T3-12FUR
14	23.70	28.55	29.08	23.01	3.08	3.30	8T3-14GUR	8T3-14FUR
16	26.84	30.91	31.71	24.61	3.08	3.30	8T3-16GUR	8T3-16FUR
18	30.00	33.27	34.10	26.97	3.08	3.30	8T3-18GUR	8T3-18FUR
20	33.18	36.47	37.28	29.36	3.08	3.30	8T3-20GUR	8T3-20FUR
22	36.35	39.65	40.45	31.75	3.08	3.30	8T3-22GUR	8T3-22FUR
24	39.55	42.82	43.63	34.93	3.71	3.99	8T3-24GUR	8T3-24FUR



Note: All dimensions are in millimeters (mm)

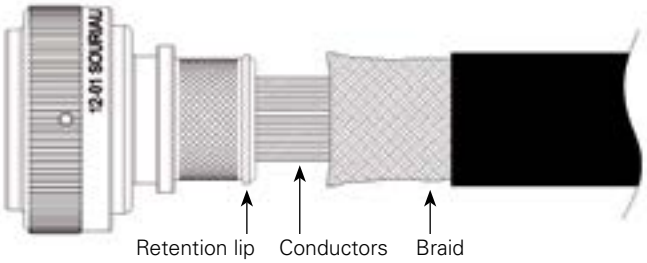
Backshells assembly

Band lock type 05

Step 1: Prepare cable braid

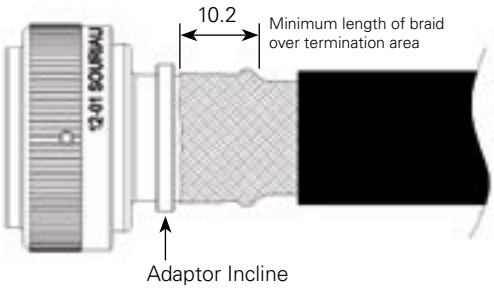
Terminate wires to connector and screw the backshell to connector. Prepare the cable for termination process.

WARNING! Banding must occur on an un-fixtured cable assembly. Attaching a band to a firmly clamped cable will affect the applied forces and will also interfere with the cut-off operation. The cut-off operation causes a rotation of the band termination in order to lock the band.



Step 2: Push braid over adaptor

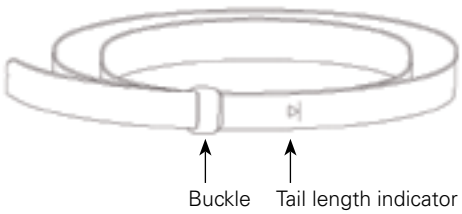
Push the braid over the retention lip to the adaptor incline point or ensuring 10.2mm [0.4"] minimum braid length over termination area. Milk the braid as required to remove the slack and ensure a snug fit around the shield termination area.



Step 3: Prepare band

Roll the band through the buckle slot twice. Pull on the band until the tail length indicator mark is within approximately 6.4 mm (0.250 in) of the buckle slot. The band may be tightened further if desired.

WARNING! Always roll band through the buckle slot twice in order to ensure correct functioning.



Step 4: Install band

a) Squeeze the gripper release lever of the banding tool and insert the band into the front end opening of the tool as shown on picture.

WARNING! The circular portion of looped band must always face downward.

b) Aligning the band and the tool with the shield termination area, squeeze the black pull-up handle repeatedly using short strokes until it locks against the tool body (this indicates that the band is compressed to the tool pre-calibrated tension).

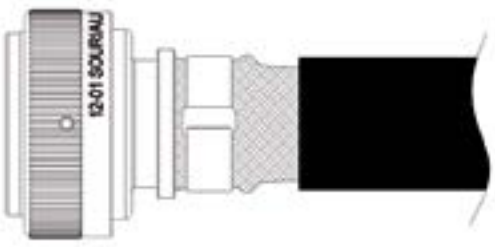
IMPORTANT! Operator technique can affect the integrity of the band installation. The operator should use **abbreviated** or **partial** strokes of the pull-up handle as the band is pulling up against the braid. As the band becomes completely tight, apply a full strokes of the pull-up handle to ensure that the full calibrated force of the tool is applied as the handle locks into position.

c) Complete the clamping process by squeezing the gray cut-off handle, allowing the cable to rotate slightly during cut-off.

Step 5: Inspect the shield termination

Remove the excess band from the tool. Inspect shield termination. Install the heat shrinkable boot, if required.

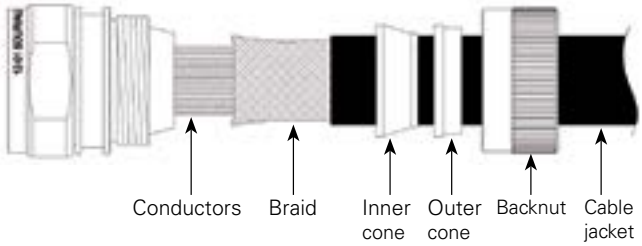
WARNING! Tools and bands should never be lubricated.



Double cone type 06

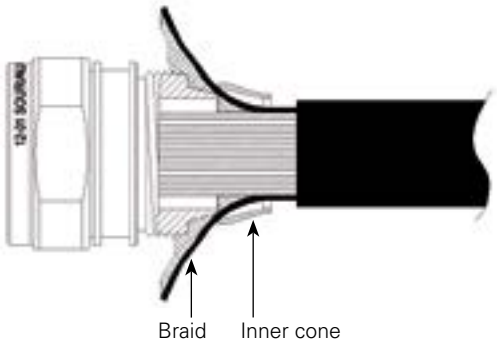
Step 1: Prepare cable braid

Prepare the cable for termination process and slide the backshell parts onto the cable the items in the order shown in above figure. Screw the backshell at the rear of the connector.



Step 2: Push braid over adaptor

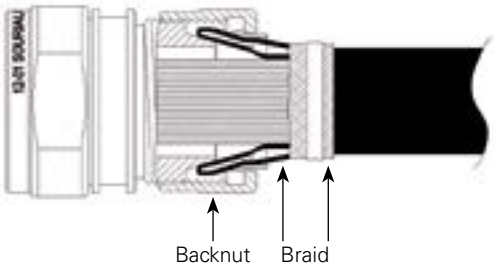
Release the braid and slide the inner cone over the braid.



Step 3-a: Double folding

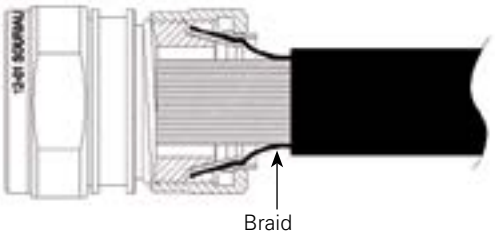
Fold back the braid on the inner cone and fix it with an adhesive tape on to the jacket of the cable. Slide the outer cone over the braid and the inner cone. Screw the backnut at the rear of the backshell and tighten it. Install the heat shrinkable boot.

Please refer to Step 3-b for alternate method (Single folding).



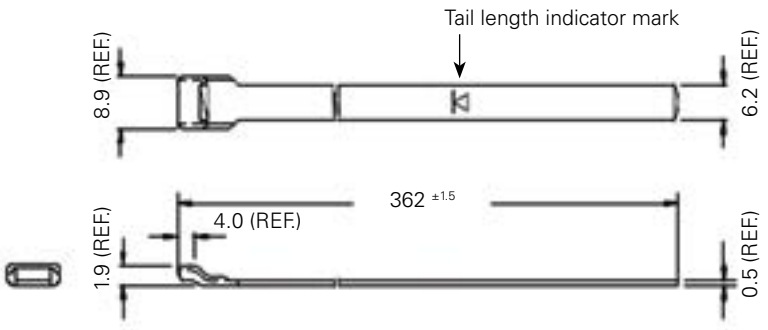
Step 3-b: Single folding

Cut the braid as shown. Slide the outer cone over the braid and the inner cone. Screw the backnut at the rear of the backshell and tighten it. Install heat-shrinkable boot.



Band-it

Designation	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)

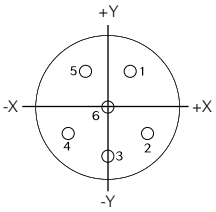
Coordinates for straight PC tail terminations

Viewed from front face of male insulator

Hole sizes: 1mm min. (#22 and #20 contacts) and 1.3mm min. (#16 contact) coordinates in mm.

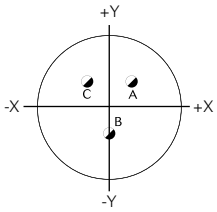
08

35



Ctc	X	Y
1	+1.14	+1.98
2	+1.98	-1.14
3	0.00	-2.29
4	-1.98	-1.14
5	-1.14	+1.98
6	0.00	0.00

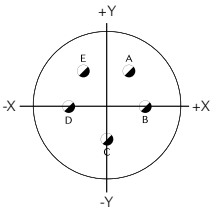
98



Ctc	X	Y
A	+1.65	+0.97
B	0.00	-1.90
C	-1.65	+0.97

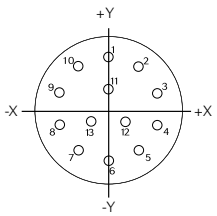
10

05



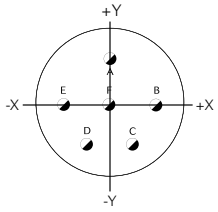
Ctc	X	Y
A	+1.65	+1.42
B	+2.86	-1.65
C	0.00	-3.30
D	-2.86	-1.65
E	-1.65	+1.42

35



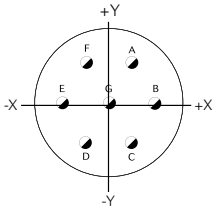
Ctc	X	Y
1	0.00	+3.71
2	+2.16	+3.00
3	+3.51	+1.14
4	+3.51	-1.14
5	+2.16	-3.00
6	0.00	-3.71
7	-2.16	-3.00
8	-3.51	-1.14
9	-3.51	+1.14
10	-2.16	+3.00
11	0	+1.42
12	+1.24	-0.89
13	-1.24	-0.89

98



Ctc	X	Y
A	0.00	+3.30
B	+3.30	0.00
C	+1.65	-2.87
D	-1.65	-2.87
E	-3.30	0.00
F	0.00	0.00

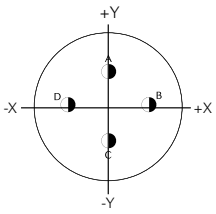
99



Ctc	X	Y
A	+1.65	+2.85
B	+3.30	0.00
C	+1.65	-2.87
D	-1.65	-2.87
E	-3.30	0.00
F	-1.65	+2.87
G	0.00	0.00

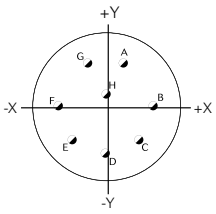
12

04



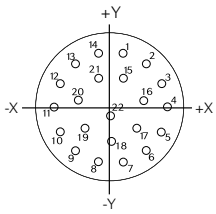
Ctc	X	Y
A	0.00	+3.81
B	+3.71	+0.89
C	0.00	-2.11
D	-3.71	+0.89

08



Ctc	X	Y
A	+1.65	+3.99
B	+4.32	0.00
C	+3.05	-3.05
D	0.00	-4.32
E	-3.05	-3.05
F	-4.32	0.00
G	-1.65	+3.99
H	0.00	+1.12

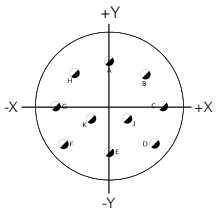
35



Ctc	X	Y
1	+1.14	+5.00
2	+3.20	+4.01
3	+4.62	+2.24
4	+5.16	0.00
5	+4.62	-2.24
6	+3.20	-4.01
7	+1.14	-5.00

Ctc	X	Y
8	-1.14	-5.00
9	-3.20	-4.01
10	-4.62	-2.24
11	-5.16	0.00
12	-4.62	+2.24
13	-3.20	+4.01
14	-1.14	+5.00
15	+1.14	+2.72
16	+2.97	+0.66
17	+2.36	-1.91
18	0.00	-3.05
19	-2.36	-1.91
20	-2.97	+0.66
21	-1.24	+2.72
22	0.00	-0.76

98



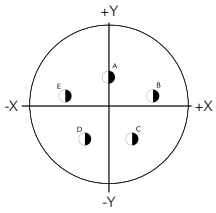
Ctc	X	Y
A	0.00	+4.95
B	+3.18	+3.81
C	+4.90	+0.76
D	+4.17	-2.67
E	0.00	-3.43
F	-4.17	-2.67
G	-4.90	+0.76
H	-3.18	+3.81
J	+1.65	-0.38
K	-1.65	-0.38

Souriau 8T series

Coordinates

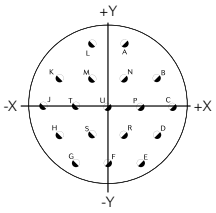
14

05



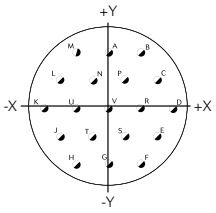
Ctc	X	Y
A	0	+2.54
B	+4.42	+0.61
C	+2.39	+3.76
D	-2.39	-3.76
E	-4.42	+0.61

18



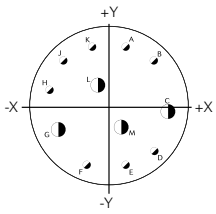
Ctc	X	Y
A	+1.65	+6.40
B	+4.95	+2.87
C	+6.60	0.00
D	+4.95	-2.87
E	+3.30	-5.72
F	0.00	-5.72
G	-3.30	-5.72
H	-4.95	-2.87
J	-6.60	0.00
K	-4.95	+2.87
L	-1.65	+6.40
M	-1.65	+2.87
N	+1.65	+2.87
P	+3.30	0.00
R	+1.65	-2.87
S	-1.65	-2.87
T	-3.30	0.00
U	0.00	0.00

19



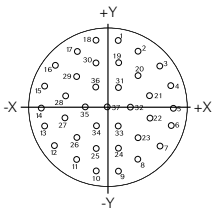
Ctc	X	Y
A	0.00	+5.72
B	+3.30	+5.72
C	+4.95	+2.87
D	+6.60	0.00
E	+4.95	-2.87
F	+3.30	-5.72
G	0.00	-5.72
H	-3.30	-5.72
J	-4.95	-2.87
K	-6.60	0.00
L	-4.95	+2.87
M	-3.30	+5.72
N	-1.65	+2.87
P	+1.65	+2.87
R	+3.30	0.00
S	+1.65	-2.87
T	-1.65	-2.87
U	-3.30	0.00
V	0.00	0.00

97



Ctc	X	Y
A	+1.65	+5.94
B	+4.52	+4.52
C	+5.84	-0.58
D	+4.52	-4.52
E	+1.65	-5.94
F	-2.26	-5.97
G	-5.26	-2.41
H	-5.94	+1.65
J	-4.52	+4.52
K	-1.65	+5.94
L	-1.19	+2.06
M	+1.19	-2.06

35

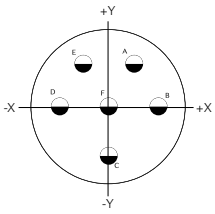


Ctc	X	Y
1	+1.14	+6.65
2	+3.12	+5.51
3	+5.36	+4.06
4	+6.45	+2.03
5	+6.76	-0.25
6	+6.27	-2.49
7	+5.08	-4.45
8	+3.30	-5.89
9	+1.14	-6.65
10	-1.14	-6.65
11	-3.30	-5.89
12	-5.08	-4.45
13	-6.27	-2.49
14	-6.76	-0.25
15	-6.45	+2.03
16	-5.36	+4.06
17	-3.12	+5.51
18	-1.14	+6.65
19	+1.14	+4.37

Ctc	X	Y
20	+3.12	+3.02
21	+4.32	+1.02
22	+4.32	-1.27
23	+3.12	-3.23
24	+1.14	-4.37
25	-1.14	-4.37
26	-3.12	-3.23
27	-4.32	-1.27
28	-4.32	+1.02
29	-3.12	+3.02
30	-1.14	+4.37
31	+1.14	+1.88
32	+2.29	-0.10
33	+1.14	-2.08
34	-1.14	-2.08
35	-2.29	-0.10
36	-1.14	+1.88
37	0.00	-0.10

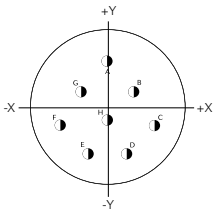
16

06



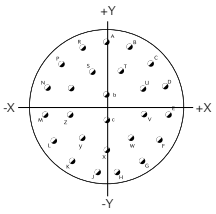
Ctc	X	Y
A	+3.07	+5.31
B	+6.12	0.00
C	0.00	-6.12
D	-6.12	0.00
E	-3.07	+5.31
F	0.00	0.00

08



Ctc	X	Y
A	0.00	+5.99
B	+3.25	+2.18
C	+5.84	-1.98
D	+2.39	-5.49
E	-2.39	-5.49
F	-5.84	-1.98
G	-3.25	+2.18
H	0.00	-1.32

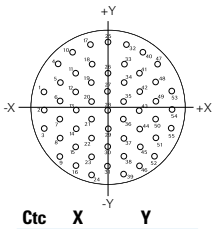
26



Ctc	X	Y
A	0.00	+8.15
B	+3.33	+7.44
C	+6.07	+5.44
D	+7.75	+2.51
E	+8.10	-0.86
F	+7.06	-4.09
G	+4.80	-6.60
H	+1.70	-7.98
J	-1.70	-7.98

Ctc	X	Y
K	-4.80	-6.60
L	-7.06	-4.09
M	-8.10	-0.86
N	-7.75	+2.51
P	-6.07	+5.44
R	-3.33	+7.44
S	-1.78	+4.50
T	+1.78	+4.50
U	+4.45	+2.39
V	+4.53	-0.91
W	+3.02	-3.84
X	0.00	-5.16
Y	-3.02	-3.84
Z	-4.53	-0.91
a	-4.45	+2.39
b	0.00	+1.65
c	0.00	-1.65

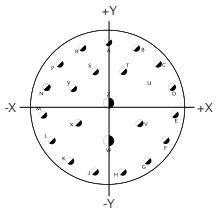
35



Ctc	X	Y
1	-7.92	+2.18
2	-7.92	-0.10
3	-7.92	-2.39
4	-6.15	+5.61
5	-5.94	+3.33
6	-5.94	+1.04
7	-5.94	-1.24
8	-5.94	-3.53
9	-5.94	-5.82
10	-4.37	+7.09
11	-3.96	+4.47
12	-3.96	+2.18
13	-3.96	-0.10
14	-3.96	-2.39
15	-3.96	-4.67
16	-3.96	-6.96
17	-2.26	+8.03
18	-1.98	+5.61
19	-1.98	+3.33
20	-1.98	+1.04
21	-1.98	-1.24
22	-1.98	-3.53
23	-1.98	-5.82
24	-1.98	-8.10

Ctc	X	Y
25	0.00	+8.36
26	0.00	+4.47
27	0.00	+2.18
28	0.00	-0.10
29	0.00	-2.39
30	0.00	+4.67
31	0.00	-6.96
32	+2.26	+8.03
33	+1.98	+5.61
34	+1.98	+3.33
35	+1.98	+1.04
36	+1.98	-1.24
37	+1.98	-3.53
38	+1.98	-5.82
39	+1.98	-8.10
40	+4.37	+7.09
41	+3.96	+4.47
42	+3.96	+2.18
43	+3.96	-0.10
44	+3.96	-2.39
45	+3.96	-4.67
46	+3.96	-6.96
47	+6.15	+5.61
48	+5.94	+3.33
49	+5.94	+1.04
50	+5.94	-1.24
51	+5.94	-3.53
52	+5.94	-5.82
53	+7.92	+2.18
54	+7.92	-0.10
55	+7.92	2-.39

99



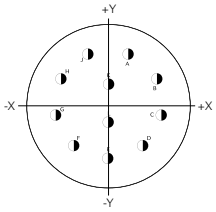
Ctc	X	Y
A	0.00	+8.15
B	+3.33	+7.44
C	+6.07	+5.44
D	+7.75	+2.51
E	+8.10	-0.86
F	+7.06	-4.09
G	+4.80	-6.60
H	+1.70	-7.98
J	-1.70	-7.98
K	-4.80	-6.60
L	-7.06	-4.09
M	-8.10	-0.86
N	-7.75	+2.51
P	-6.07	+5.44
R	-3.33	+7.44
S	-1.78	+4.50
T	+1.78	+4.50
U	+4.45	+2.39
V	+3.81	-1.91
W	0.00	-4.09
X	-3.81	-1.91
Y	-4.45	+2.39
Z	0.00	+0.64

Souriau 8T series

Coordinates

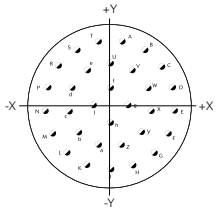
18

11



Ctc	X	Y
A	+2.67	+6.60
B	+6.35	+3.35
C	+6.99	-1.35
D	+4.55	-5.46
E	0.00	-7.14
F	-4.55	-5.46
G	-6.99	-1.35
H	-6.35	+3.35
J	-2.67	+6.60
K	0.00	+2.67
L	0.00	-2.34

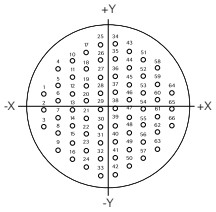
32



Ctc	X	Y
A	+1.68	+8.97
B	+4.80	+7.75
C	+7.26	+5.51
D	+8.76	+2.49
E	+9.07	-0.84
F	+8.15	-4.06
G	+6.15	-6.73
H	+3.30	-8.51
J	0.00	-9.12
K	-3.30	-8.51
L	-6.15	-6.73
M	-8.15	-4.06
N	-9.07	-0.84
P	-8.76	+2.49
R	-7.26	+5.51
S	-4.80	+7.75

Ctc	X	Y
T	-1.68	+8.97
U	0.00	+5.84
V	+3.15	+4.90
W	+5.31	+2.41
X	+5.79	-0.84
Y	+4.42	-3.84
Z	+1.65	-5.61
a	-1.65	-5.61
b	-4.42	-3.84
c	-5.79	-0.84
d	-5.31	+2.41
e	-3.15	+4.90
f	0.00	+2.44
g	+2.44	0.00
h	0.00	-2.44
j	-2.44	0.00

35



Ctc	X	Y
1	-9.07	+2.29
2	-9.07	0.00
3	-9.07	-2.29
4	-7.09	+5.71
5	-7.09	+3.43
6	-7.09	+1.14
7	-7.09	-1.14
8	-7.09	-3.43
9	-7.09	-5.71
10	-5.11	+6.86
11	-5.11	+4.57
12	-5.11	+2.29
13	-5.11	0.00
14	-5.11	-2.29

Ctc	X	Y
15	-5.11	-4.57
16	-5.11	-6.86
17	-3.12	+8.00
18	-3.12	+5.71
19	-3.12	+3.43
20	-3.12	+1.14
21	-3.12	-1.14
22	-3.12	-3.43
23	-3.12	-5.71
24	-3.12	-8.00
25	-1.14	+9.14
26	-1.14	+6.86
27	-1.14	+4.57

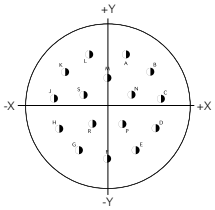
Ctc	X	Y
28	-1.14	+2.29
29	-1.14	0.00
30	-1.14	-2.29
31	-1.14	-4.57
32	-1.14	-6.86
33	-1.14	-9.14
34	+1.14	+9.14
35	+1.14	+6.86
36	+1.14	+4.57
37	+1.14	+2.29
38	+1.14	0.00
39	+1.14	-2.29
40	+1.14	-4.57

Ctc	X	Y
41	+1.14	-6.86
42	+1.14	-9.14
43	+3.12	+8.00
44	+3.12	+5.71
45	+3.12	+3.43
46	+3.12	+1.14
47	+3.12	-1.14
48	+3.12	-3.43
49	+3.12	-5.71
50	+3.12	-8.00
51	+5.11	+6.86
52	+5.11	+4.57
53	+5.11	+2.29

Ctc	X	Y
54	+5.11	0.00
55	+5.11	-2.29
56	+5.11	-4.57
57	+5.11	-6.86
58	+7.09	+5.71
59	+7.09	+3.43
60	+7.09	+1.14
61	+7.09	-1.14
62	+7.09	-3.43
63	+7.09	-5.71
64	+9.07	+2.29
65	+9.07	0.00
66	+9.07	-2.29

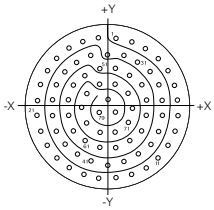
20

16



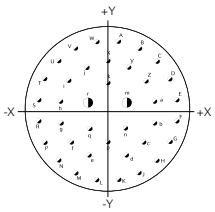
Ctc	X	Y
A	+3.00	+8.18
B	+6.88	+5.36
C	+8.66	+0.91
D	+7.82	-3.81
E	+4.62	-7.37
F	0.00	-8.71
G	-4.62	-7.37
H	-7.82	-3.81
J	-8.66	+0.91
K	-6.88	+5.36
L	-3.00	+8.18
M	0.00	+4.45
N	+3.91	+1.57
P	+2.39	-3.10
R	-2.39	-3.10
S	-3.91	+1.57

35



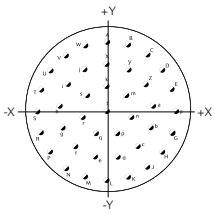
Ctc	X	Y
1	+1.35	+10.82
2	+3.71	+10.26
3	+5.89	+9.19
4	+7.77	+7.67
5	+9.27	+5.77
6	+10.31	+3.58
7	+10.85	+1.22
8	+10.85	-1.22
9	+10.31	-3.58
10	+9.27	-5.77
11	+7.77	-7.67
12	+5.89	-9.19
13	+3.71	-10.26
14	+1.35	-10.82
15	-1.35	-10.82
16	-3.71	-10.26
17	-5.89	-9.19
18	-7.77	-7.67
19	-9.27	-5.77
20	-10.31	-3.58
21	-10.85	-1.22
22	-10.85	+1.22
23	-10.31	+3.58
24	-9.27	+5.77
25	-7.77	+7.67
26	-5.89	+9.19
27	-3.71	+10.26
28	-1.35	+10.82
29	0.00	+8.20
30	+2.49	+8.18
31	+4.67	+7.11
32	+6.55	+5.59
33	+7.90	+3.58
34	+8.43	+1.22
35	+8.43	-1.22
36	+7.90	-3.58
37	+6.55	-5.59
38	+4.67	-7.11
39	+2.49	-8.18
40	0.00	-8.81
41	-2.49	-8.18
42	-4.67	-7.11
43	-6.55	-5.59
44	-7.90	-3.58
45	-8.43	-1.22
46	-8.43	+1.22
47	-7.90	+3.58
48	-6.55	+5.59
49	-4.67	+7.11
50	-2.49	+8.18
51	-1.22	+6.12
52	+1.22	+6.12
53	+3.40	+5.05
54	+5.28	+3.53
55	+6.02	+1.22
56	+6.02	-1.22
57	+5.28	-3.53
58	+3.40	-5.05
59	+1.22	-6.12
60	-1.22	-6.12
61	-3.40	-5.05
62	-5.28	-3.53
63	-6.02	-1.22
64	-6.02	+1.22
65	-5.28	+3.53
66	-3.40	+5.05
67	-1.22	+3.71
68	+1.22	+3.71
69	+3.18	+2.29
70	+3.94	0.00
71	+3.18	-2.29
72	+1.22	-3.71
73	-1.22	-3.71
74	-3.18	-2.29
75	-3.94	0.00
76	-3.18	+2.29
77	0.00	+1.35
78	+1.22	-0.74
79	-1.22	-0.74

39



Ctc	X	Y
A	+1.65	+10.44
B	+4.80	+9.42
C	+7.47	+7.47
D	+9.42	+4.80
E	+10.44	+1.65
F	+10.44	-1.65
G	+9.42	-4.80
H	+7.47	-7.47
J	+4.80	-9.42
K	+1.65	-10.44
L	-1.65	-10.44
M	-4.80	-9.42
N	-7.47	-7.47
P	-9.42	-4.80
R	-10.44	-1.65
S	-10.44	+1.65
T	-9.42	+4.80
U	-7.47	+7.47
V	-4.80	+9.42
W	-1.65	+10.44
X	0.00	+7.49
Y	+3.20	+6.50
Z	+5.89	+4.55
a	+7.11	+1.45
b	+7.11	-1.88
c	+5.51	-4.80
d	+2.84	-6.73
e	-2.84	-6.73
f	-5.51	-4.80
g	-7.11	-1.88
h	-7.11	+1.45
i	-5.89	+4.55
j	-3.20	+6.50
k	0.00	+4.17
m	+2.90	+1.22
n	+2.69	-2.72
p	0.00	-4.80
q	-2.69	-2.72
r	-2.90	+1.22

41



Ctc	X	Y
A	0.00	+10.60
B	+3.28	+10.09
C	+6.23	+8.58
D	+8.58	+6.23
E	+10.09	+3.28
F	+10.60	0.00
G	+10.09	-3.28
H	+8.58	-6.23
J	+6.23	-8.58
K	+3.28	-10.09
L	0.00	-10.60
M	-3.26	-10.09
N	-6.23	-8.58
P	-8.58	-6.23
R	-10.09	-3.28
S	-10.60	0.00
T	-10.09	+3.28
U	-8.58	+6.23
V	-6.23	+8.58
W	-3.28	+10.09
X	0.00	+7.20
Y	+3.35	+6.38
Z	+5.92	+4.09
a	+7.15	+0.87
b	+6.73	-2.55
c	+4.78	-5.39
d	+1.73	-6.99
e	-1.73	-6.99
f	-4.78	-5.39
g	-6.73	-2.55
h	-7.15	+0.87
i	-5.92	+4.09
j	-3.35	+6.38
k	0.00	+3.81
m	+2.98	+2.38
n	+3.71	-0.85
p	+1.66	-3.43
q	-1.66	-3.43
r	-3.71	-0.85
s	-2.98	+2.38
t	0.00	0.00

Souriau 8T series

Coordinates

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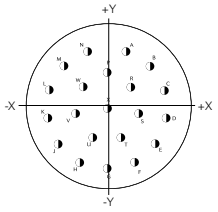
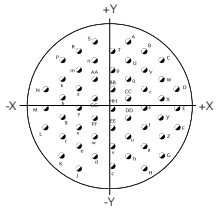


Ctc	X	Y
A	+3.25	+9.78
B	+7.34	+7.24
C	+9.80	+3.12
D	+10.16	-1.65
E	+8.33	-6.07
F	+4.65	-9.19
G	0.00	-10.31
H	-4.65	-9.19
J	-8.33	-6.07
K	-10.16	-1.65
L	-9.80	+3.12
M	-7.34	+7.24
N	-3.25	+9.78
P	0.00	+6.22
R	+4.06	+3.71
S	+5.44	-0.89
T	+2.39	-4.93
U	-2.39	-4.93
V	-5.44	-0.89
W	-4.06	+3.71
X	0.00	0.00

53

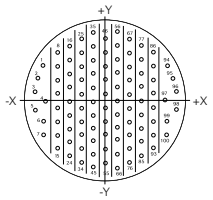


Ctc	X	Y
A	+2.84	+11.56
B	+5.72	+9.91
C	+8.53	+8.26
D	+11.43	+3.30
E	+11.43	0.00
F	+11.43	-3.30
G	+8.53	-8.26
H	+5.72	-10.41
J	-5.72	-10.41
K	-8.53	-8.26
L	-11.43	-3.30
M	-11.43	0.00
N	-11.43	+3.30
P	-8.53	+8.26
R	-5.72	+9.91
S	-2.84	+11.56
T	0.00	+9.91
U	+2.84	+8.26
V	+5.72	+6.60
W	+8.53	+4.95

Ctc	X	Y
X	+8.53	+1.65
Y	+8.53	-1.65
Z	+8.53	-4.95
a	+5.72	-6.60
b	+2.84	-8.26
c	0.00	-9.91
d	-2.84	-8.26
e	-5.72	-6.60
f	-8.53	-4.95
g	-8.53	-1.65
h	-8.53	+1.65
k	-8.53	+4.95
m	-5.72	+6.60
n	-2.84	+8.26
p	0.00	+6.60
q	+2.84	+4.95
r	+5.72	+3.30
s	+5.72	0.00
t	+5.72	-3.30
u	+2.84	-4.95

Ctc	X	Y
v	0.00	-6.60
w	-2.84	-4.95
x	-5.72	-3.30
y	-5.72	0.00
z	-5.72	+3.30
AA	-2.84	+4.95
BB	0.00	+3.30
CC	+2.84	+1.65
DD	+2.84	-1.65
EE	0.00	-3.30
FF	-2.84	-1.65
GG	-2.84	+1.65
HH	0.00	0.00

35



Ctc	X	Y
1	-10.87	+6.12
2	-11.86	+3.91
3	-12.40	+1.55
4	-10.54	0.00
5	-12.40	-1.55
6	-10.87	-3.61
7	-10.87	-6.02
8	-8.43	+8.46
9	-8.43	+6.05
10	-8.43	+3.63
11	-8.43	+1.22
12	-8.43	-1.19
13	-8.43	-3.61
14	-8.43	-6.02
15	-8.43	-8.43
16	-6.32	+9.65
17	-6.32	+7.24
18	-6.32	+4.83
19	-6.32	+2.41
20	-6.32	0.00

Ctc	X	Y
21	-6.32	-2.41
22	-6.32	-4.83
23	-6.32	-7.24
24	-6.32	-9.65
25	-4.22	+10.87
26	-4.22	+8.46
27	-4.22	+6.05
28	-4.22	+3.63
29	-4.22	+1.22
30	-4.22	-1.19
31	-4.22	-3.61
32	-4.22	-6.02
33	-4.22	-8.43
34	-4.22	-10.85
35	-2.11	+12.07
36	-2.11	+9.65
37	-2.11	+7.24
38	-2.11	+4.83
39	-2.11	+2.41
40	-2.11	0.00

Ctc	X	Y
41	-2.11	-2.41
42	-2.11	-4.83
43	-2.11	-7.24
44	-2.11	-9.65
45	-2.11	-12.07
46	0.00	+10.87
47	0.00	+8.46
48	0.00	+6.05
49	0.00	+3.63
50	0.00	+1.22
51	0.00	-1.19
52	0.00	-3.61
53	0.00	-6.02
54	0.00	-8.43
55	0.00	-10.85
56	+2.11	+12.07
57	+2.11	+9.65
58	+2.11	+7.24
59	+2.11	+4.83
60	+2.11	+2.41

Ctc	X	Y
61	+2.11	0.00
62	+2.11	-2.41
63	+2.11	-4.83
64	+2.11	-7.24
65	+2.11	-9.65
66	+2.11	-12.07
67	+4.22	+10.87
68	+4.22	+8.46
69	+4.22	+6.05
70	+4.22	+3.63
71	+4.22	+1.22
72	+4.22	-1.19
73	+4.22	-3.61
74	+4.22	-6.02
75	+4.22	-8.43
76	+4.22	-10.85
77	+6.32	+9.65
78	+6.32	+7.24
79	+6.32	+4.83
80	+6.32	+2.41

Ctc	X	Y
81	+6.32	0.00
82	+6.32	-2.41
83	+6.32	-4.83
84	+6.32	-7.24
85	+6.32	-9.65
86	+8.43	+8.46
87	+8.43	+6.05
88	+8.43	+3.63
89	+8.43	+1.22
90	+8.43	-1.19
91	+8.43	-3.61
92	+8.43	-6.02
93	+8.43	-8.43
94	+10.87	+6.12
95	+11.86	+3.91
96	+12.40	+1.55
97	+10.54	0.00
98	+12.40	-1.55
99	+10.87	-3.61
100	+10.87	-6.02

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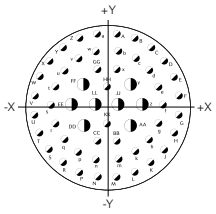
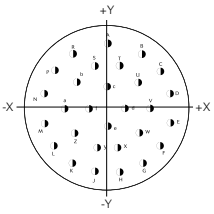


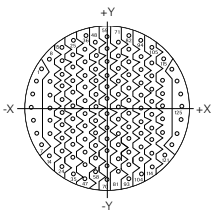
Ctc	X	Y
A	+1.75	+13.49
B	+5.16	+12.57
C	+8.23	+10.80
D	+10.77	+8.28
E	+12.52	+5.21
F	+13.49	+1.75
G	+13.49	-1.75
H	+12.52	-5.21
J	+10.77	-8.28
K	+8.23	-10.80
L	+5.16	-12.57
M	+1.75	-13.49
N	-1.75	-13.49
P	-5.16	-12.57
R	-8.23	-10.80
S	-10.77	-8.28
T	-12.52	-5.21
U	-13.49	-1.75
V	-13.49	+1.75
W	-12.52	+5.21
X	-10.77	+8.28
Y	-8.23	+10.80
Z	-5.16	+12.57
a	-1.75	+13.49
b	+2.18	+10.08
c	+5.38	+8.78
d	+7.90	+6.38
e	+9.58	+3.35
f	+10.46	0.00
g	+9.58	-3.35
h	+7.90	-6.38
k	+5.38	-8.78
m	+2.18	-10.08
n	-2.18	-10.08
p	-5.38	-8.78
q	-7.90	-6.38
r	-9.58	-3.35
s	-10.46	0.00
t	-9.58	+3.35
u	-7.90	+6.38
v	-5.38	+8.78
w	-2.18	+10.08
x	+1.75	+6.66
y	+4.37	+3.78
z	+6.55	0.00
AA	+4.37	-3.78
BB	+1.75	-6.66
CC	-1.75	-6.66
DD	-4.37	-3.78
EE	-6.55	0.00
FF	-4.37	-3.78
GG	-1.75	+6.66
HH	0.00	+3.35
JJ	+2.18	0.00
KK	0.00	-3.35
LL	-2.18	0.00

29



Ctc	X	Y
A	0.00	+12.22
B	+6.55	+10.31
C	+10.03	+7.04
D	+11.91	+2.77
E	+11.91	-2.77
F	+10.03	-7.04
G	+6.68	-10.31
H	+2.31	-11.99
J	-2.31	-11.99
K	-6.68	-10.31
L	-10.03	-7.04
M	-11.91	-2.77
N	-11.91	+2.77
P	-10.03	+7.04
R	-6.55	+10.31
S	-2.31	+8.15
T	+2.31	+8.15
U	+5.79	+4.93
V	+8.10	0.00
W	+6.10	-4.60
X	+2.31	-7.37
Y	-2.31	-7.37
Z	-6.10	-4.60
a	-8.10	0.00
b	-5.79	+4.93
c	0.00	+4.09
d	+3.40	0.00
e	0.00	-3.30
f	-3.40	0.00

35



Ctc	X	Y
1	-12.17	+7.09
2	-13.21	+4.83
3	-13.87	+2.41
4	-14.10	0.00
5	-13.87	-2.41
6	-13.21	-4.83
7	-12.17	-7.09
8	-10.77	+9.07
9	-10.54	+4.83
10	-10.54	+2.41
11	-10.54	0.00
12	-10.54	-2.41
13	-10.54	-4.83
14	-10.77	-9.07
15	-8.43	+11.28
16	-8.43	+8.43
17	-8.43	+6.02
18	-8.43	+3.61
19	-8.43	+1.19
20	-8.43	-1.19
21	-8.43	-3.61
22	-8.43	-6.02
23	-8.43	-8.43
24	-8.43	-10.85
25	-6.32	+12.60
26	-6.32	+9.65
27	-6.32	+7.24
28	-6.32	+4.83
29	-6.32	+2.41
30	-6.32	0.00
31	-6.32	-2.41
32	-6.32	-4.83
33	-6.32	-7.24
34	-6.32	-9.65
35	-6.32	-12.07
36	-4.06	+13.49
37	-4.22	+10.85
38	-4.22	+8.43
39	-4.22	+6.02
40	-4.22	+3.61
41	-4.22	+1.19
42	-4.22	-1.19
43	-4.22	-3.61
44	-4.22	-6.02
45	-4.22	-8.43
46	-4.22	-10.85
47	-4.22	-13.26
48	-2.11	+12.07
49	-2.11	+9.65
50	-2.11	+7.24
51	-2.11	+4.83
52	-2.11	+2.41
53	-2.11	0.00
54	-2.11	-2.41
55	-2.11	-4.83
56	-2.11	-7.24
57	-2.11	-9.65
58	-2.11	-12.07
59	0.00	+13.26
60	0.00	+10.85
61	0.00	+8.43
62	0.00	+6.02
63	0.00	+3.61
64	0.00	+1.19
65	0.00	-1.19
66	0.00	-3.61
67	0.00	-6.02
68	0.00	-8.43
69	0.00	-10.85
70	0.00	-14.10
71	+2.11	+12.07
72	+2.11	+9.65
73	+2.11	+7.24
74	+2.11	+4.83
75	+2.11	+2.41
76	+2.11	0.00
77	+2.11	-2.41
78	+2.11	-4.83
79	+2.11	-7.24
80	+2.11	-9.65
81	+2.11	-12.07
82	+4.06	+13.49
83	+4.22	+10.85
84	+4.22	+8.43
85	+4.22	+6.02
86	+4.22	+3.61
87	+4.22	+1.19
88	+4.22	-1.19
89	+4.22	-3.61
90	+4.22	-6.02
91	+4.22	-8.43
92	+4.22	-10.85
93	+4.22	-13.26
94	+6.32	+12.60
95	+6.32	+9.65
96	+6.32	+7.24
97	+6.32	+4.83
98	+6.32	+2.41
99	+6.32	0.00
100	+6.32	-2.41
101	+6.32	-4.83
102	+6.32	-7.24
103	+6.32	-9.65
104	+6.32	-12.07
105	+8.43	+11.28
106	+8.43	+8.43
107	+8.43	+6.02
108	+8.43	+3.61
109	+8.43	+1.19
110	+8.43	-1.19
111	+8.43	-3.61
112	+8.43	-6.02
113	+8.43	-8.43
114	+8.43	-10.85
115	+10.77	+9.07
116	+10.54	+4.83
117	+10.54	+2.41
118	+10.54	0.00
119	+10.54	-2.41
120	+10.54	-4.83
121	+10.77	-9.07
122	+12.17	+7.09
123	+13.21	+4.83
124	+13.87	+2.41
125	+14.10	0.00
126	+13.87	-2.41
127	+13.21	-4.83
128	+12.17	-7.09

Souriau 8T series

Coordinates

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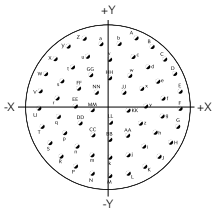

Ctc	X	Y
A	+4.98	+12.70
B	+7.98	+11.05
C	+10.49	+8.71
D	+12.32	+5.84
E	+13.39	+2.57
F	+13.61	-0.76
G	+12.98	-4.17
H	+11.53	-7.29
J	+9.35	-9.93
K	+6.58	-11.94
L	+3.40	-13.18
M	0.00	-13.64
N	-3.40	-13.18
P	-6.58	-11.94
R	-9.35	-9.93
S	-11.53	-7.29
T	-12.98	-4.17
U	-13.61	-0.76
V	-13.39	+2.57
W	-12.32	+5.84
X	-10.49	+8.71
Y	-7.98	-11.05

Ctc	X	Y
Z	-4.98	+12.10
a	-1.73	+11.53
b	+1.73	+11.53
c	+4.39	+9.22
d	+7.24	+7.19
e	+9.19	+4.45
f	+10.13	+1.17
g	+9.96	-2.24
h	+8.66	-5.41
i	+6.38	-7.98
j	+3.38	-9.63
k	0.00	-10.21
m	-3.38	-9.63
n	-6.38	-7.98
p	-8.66	-5.41
q	-9.96	-2.24
r	-10.13	+1.17
s	-9.19	+4.45
t	-7.24	+7.19
u	-4.39	+9.22
v	0.00	+8.59

Ctc	X	Y
w	+3.73	+5.66
x	+6.02	+3.10
y	+6.78	-0.25
z	+5.79	-3.53
AA	+3.33	-5.92
BB	0.00	-6.78
CC	-3.33	-5.92
DD	-5.79	-3.53
EE	-6.78	-0.25
FF	-6.02	+3.10
GG	-3.73	+5.66
HH	0.00	+5.08
JJ	+2.67	+2.39
KK	+3.43	-1.04
LL	0.00	-3.35
MM	-3.43	-1.04
NN	-2.67	+2.39
PP	0.00	0.00

Cross reference

	Souriau	MIL-DTL-38999 Series II	NFC 93422 HE309
	Shell size Contact layout Orientation	Shell size Contact layout Orientation	Shell size & Contact layout Orientation
Designation	**8TX••X••X/X•**	**MSXXXXXX••X••X/X•**	**HE309XXX••••X/X•XX**
Square flange receptacle	8T0••B••P/S• 8T0••F••P/S• 8T0••C••P/S•	MS27472T••B••P/S• MS27472T••F••P/S• MS27472T••C••P/S•	HE30900T••••P/S•7M HE30900T••••P/S•6M HE30900T••••P/S•8M
In line receptacle	8T1••B••P/S• 8T1••F••P/S• 8T1••C••P/S•	-	-
Square flange receptacle not accepting backshells (rear mounting)	8T2••B••P/S• 8T2••F••P/S• 8T2••C••P/S•	MS27508E••B••P/S• MS27508E••F••P/S• MS27508E••C••P/S•	HE30905T••••P/S•7M HE30905T••••P/S•6M HE30905T••••P/S•8M
Square flange receptacle (rear mounting)	8T3••B••P/S• 8T3••F••P/S• 8T3••C••P/S•	MS27497T••B••P/S• MS27497T••F••P/S• MS27497T••C••P/S•	HE30903T••••P/S•7M HE30903T••••P/S•6M HE30903T••••P/S•8M
Square flange receptacle not accepting backshells	8T4••B••P/S• 8T4••F••P/S• 8T4••C••P/S•	MS27499E••B••P/S• MS27499E••F••P/S• MS27499E••C••P/S•	HE30902T••••P/S•7M HE30902T••••P/S•6M HE30902T••••P/S•8M
Plug with RFI shielding	8T5••B••P/S• 8T5••F••P/S• 8T5••C••P/S•	MS27484T••B••P/S• MS27484T••F••P/S• MS27484T••C••P/S•	HE309G6T••••P/S•7M HE309G6T••••P/S•6M HE309G6T••••P/S•8M
Plug without RFI shielding	8T6••B••P/S• 8T6••F••P/S• 8T6••C••P/S•	MS27473T••B••P/S• MS27473T••F••P/S• MS27473T••C••P/S•	HE30906T••••P/S•7M HE30906T••••P/S•6M HE30906T••••P/S•8M
Jam nut receptacle	8T7••B••P/S• 8T7••F••P/S• 8T7••C••P/S•	MS27474T••B••P/S• MS27474T••F••P/S• MS27474T••C••P/S•	HE30907T••••P/S•7M HE30907T••••P/S•6M HE30907T••••P/S•8M
Square flange receptacle not accepting backshells (rear milling)	8T10••B••P/S• 8T10••F••P/S• 8T10••C••P/S•	-	-
Plug with RFI shielding not accepting back-shells (rear milling)	8T15••B••P/S• 8T15••F••P/S• 8T15••C••P/S•	-	-
Plug without RFI shielding not accepting backshells (rear milling)	8T16••B••P/S• 8T16••F••P/S• 8T16••C••P/S•	-	-
Backshells	8TAB01A••W 8TAB01A••F	M85049/27••W M85049/27••N	-

For more information, contact us:
eaton.com/interconnect-support

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