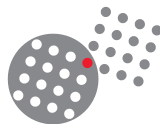
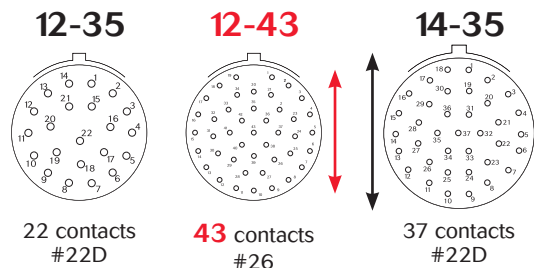




SOURIAU Extends its High Density Offer with Size #26 Contact Technology

SOURIAU brings to market a lightweight, robust and reliable 8STA High Density solution from the smallest to the largest size.

- A reliable & robust solution** ✓ Well proven design as standard 8STA: derived from MIL-DTL-38999 & JN1003.
- 6 shell sizes available** ✓ Provides flexibility according to your application. From shell size 02 to 12.
- PCB pin & socket contacts** ✓ Space and weight saving for box design.
- Lightweight & flexible** ✓ Designed for 24 to 30 AWG wire, smaller diameter tubing and boots.
- Significant space saving** ✓ High Density layout 12-43 example: Twice the number of contacts - a size smaller shell can be used for the same application.



8STA Series

High Density



Description

- Derived from MIL-DTL-38999 & JN1003 standard
- Rugged aluminium body to ensure long service life in the harshest environment
- 100% scoop proof
- Available in 5 shell sizes: 04-06; 06-09; 08-12; 10-26; 12-43
- Contacts #26 for AWG 24 to 30
- 6 colours coded keyways orientations
- Boot termination feature

Technical features

Mechanical

- **Shell:** Aluminium
- **Shell plating:** Conductive black zinc
- **Insulator:** Liquid silicone rubber
- **Seal:** Liquid Silicone rubber
- **Contact:** Copper alloy
- **Contact plating:** Gold
- **Endurance:** 500 mating cycles

- **Shock:** 300g for 3 ms and EIA-364-27
- **Vibration:** 147 m/s², 10 to 2000 Hz

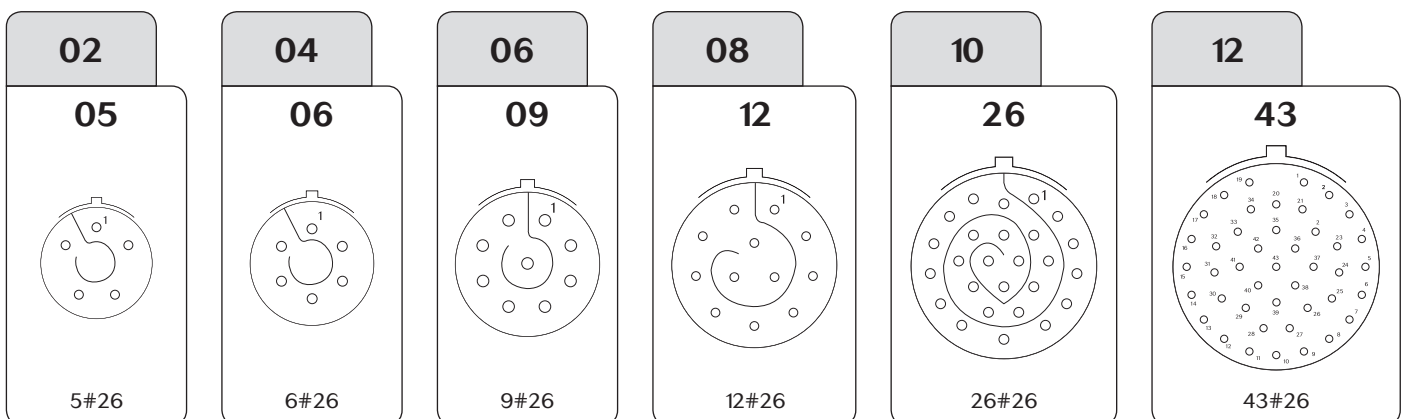
Electrical

- **Contact resistance:**
Size 26: 16mΩ
- **Insulation resistance:**
≥5000mΩ (at 400Vdc)
- **Contact rating:**
Size 26: 3 Amp
- **Shell continuity:** ≤10mΩ

Environmental

- **Temperature range:** -55°c to +175°c
- **Sealing mated connectors:**
IP 67 (1 metre for 30 min minimum)
- **Salt spray:** 48 hours

Contact layouts



8STA Series

High Density



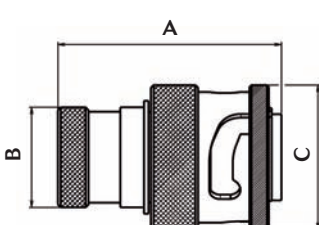
Ordering information

Basic series	8STA	6	12	43	P	N
Shell type:						
0: Oval flange receptacle						
1: In line receptacle						
2: Oval Flange receptacle with PCB contacts						
6: Plug						
7: Jam nut receptacle						
Shell size:						
02; 04; 06; 08; 10; 12						
Contact layout: See previous page						
Type of contact:						
P: Pin						
S: Socket						
Orientation:						
N: Red; A: Yellow; B: Blue; C: Orange; D: Green; E: Grey (shell size 02 only); U: Universal						
Specification:						
None : Standard crimp version						
499: Integrated clinch nut on the flange:						
. M2 insert (shell type 0 & 2 only for shell sizes 04 & 06)						
. M3 insert (shell type 0 & 2 only for shell sizes 08, 10 & 12)						
523: Light weight in line receptacle - for shell sizes 08 to 12 (shell type 1 only)						
528: Integrated clinch nut on the flange: M2.5 insert (shell type 0 & 2 only for shell sizes 04 & 06)						
566: Rackable plug - for shell sizes 10 & 12 (shell type 6 only)						

Dimensions

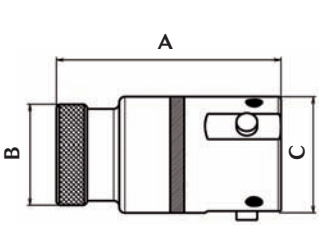
Shell sizes 02, 04 & 06

Plug



Shell size	A	Ø B	Ø C
02	17.50	7.2	10.4
04	18.3 ^{±0.2}	8.5 ^{±0.1}	13.4 ^{±0.1}
06	21.95/22.2	10.1/10.35	15.05 ^{±0.2}

In-line receptacle



Shell size	A	Ø B	Ø C
02	17.50	7.2	8.3
04	18.1 ^{±0.2}	8.5 ^{±0.1}	10 ^{±0.2}
06	22.95/23.2	10.1/10.35	11.5/11.65

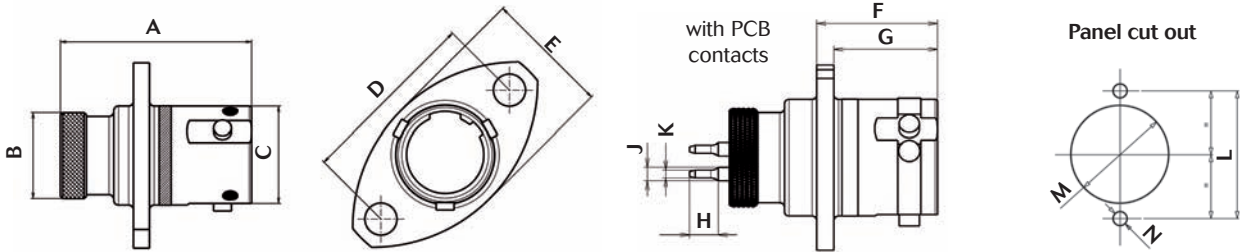
Note: All dimensions are in millimeters (mm)

8STA Series

High Density



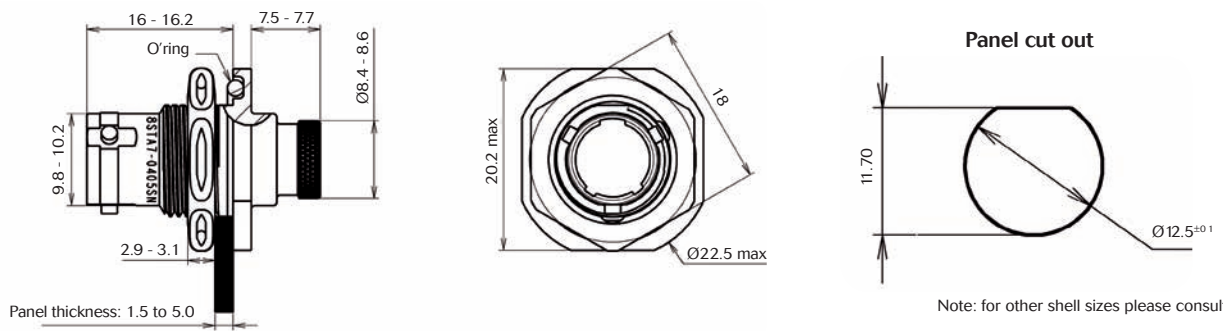
Oval flange receptacle



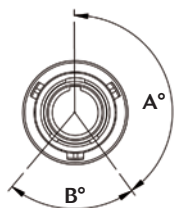
Shell size	A	Ø B	Ø C	D	E	F	G	H
02	17.5	7.2	8.3	15.3	-	10	-	2.45/2.55
04	17.9/18.3	8.4/8.6	9.8/10.2	16/16.4	12.8/13.2	10.4/10.7	8.8/9.2	2.5
06	22.9/23.2	10.1/10.3	11.5/11.6	17.8/18.2	14.7/14.9	12.6/12.9	10.7/10.8	3.9/4.1

Shell size	J		K		L	Ø M	Ø N
	#22D	#26	#22D	#26			
02	1.17/1.24	0.95/1.15	0.64/0.69	0.49/0.54	15.3 ^{±0.2}	9.3 ^{±0.1}	3.1 ^{±0.2}
04	1.19/1.24	1.1/1.15	0.64/0.69	0.49/0.54	16.2 ^{±0.2}	12 ^{±0.1}	3.1 ^{±0.2}
06	1.19/1.24	1.1/1.15	0.64/0.69	0.49/0.54	18 ^{±0.2}	13 ^{±0.1}	3.1 ^{±0.2}

Jam nut receptacle (shell size 04)



Orientation



View from front face of plug.

Key positions	N Red	A Yellow	B Blue	C Orange	D Green	E Grey	U No color
Angles A°	145°	130°	110°	155°	90°	-	None
Angles B°	75°	120°	120°	115°	115°	-	None

For each shell size, U orientation can be mateable with any other orientations.

Note: All dimensions are in millimeters (mm)

8STA Series

High Density



Dimensions

Shell sizes 08, 10 & 12

Plug

33.5 max.
B

Color band

ØA

Shell size	ØA max.	B max.
08	18.70	18.55
10	21.50	
12	25.10	

In-line receptacle

Standard version

G

ØD

Hand grip

Lightweight version (specification 523)

G

ØD

ØA

Shell size	8	10	12
ØA max.	17.6	20.7	25.1
ØD ^{+0.20} _{-0.13}	12	15	19.05
G max.	33.5		

Jam nut receptacle

G

E

F

ØD

P Panel thickness

ØA

B1

B2

Panel cut out

ØA

B

Shell size	ØA ±0.3	B1-B2 ±0.24	ØD _{-0.12} ⁰	E ±0.10	F ±0.24	G ±0.3	P max.	Panel cut out	
								ØA ±0.10	B ±0.20
08	26.90	24.10	11.97	25.91	23.24	36.71	3.00	14.50	13.60
10	30.15	27.30	14.94					17.70	16.80
12	34.89	32.10	19.01					22.70	20.90

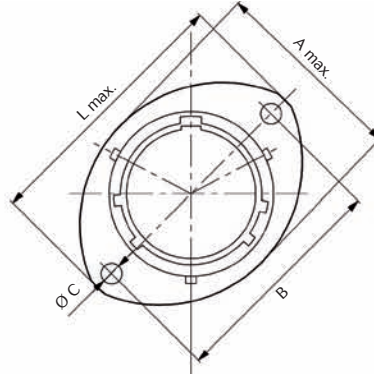
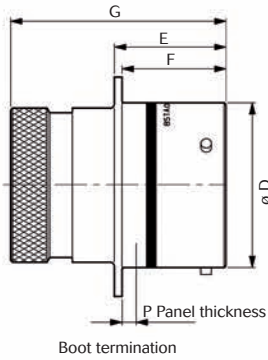
Note: All dimensions are in millimeters (mm)

8STA Series

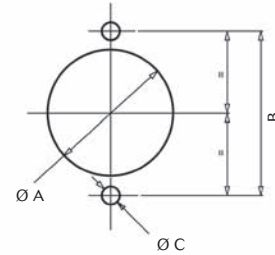
High Density



Oval flange receptacle

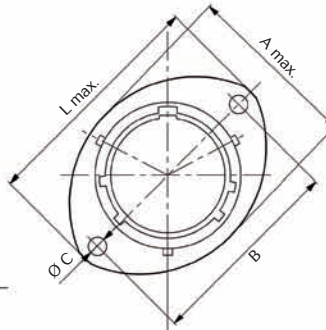
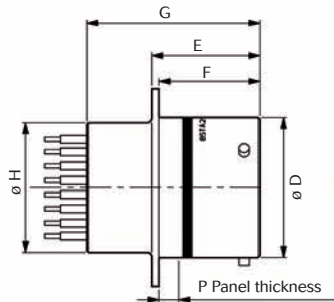
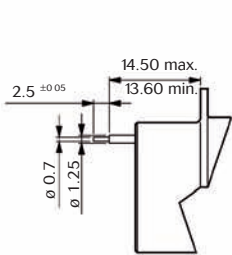


Panel cut out

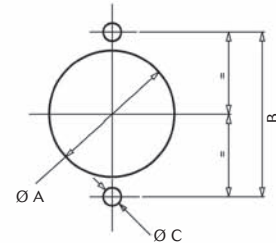


Shell size	A max.	B ±0.20	ØC ⁰ _{+0.1}	ØD ^{+0.2} _{-0.13}	E ⁰ _{+0.15}	F ⁰ _{-0.13}	G max.	L max.	P max.	Panel cut out		
										ØA ±0.10	B ±0.20	ØC ±0.20
08	16.50	21.40	3.20	12.00	17.21	16.05	33.50	27.20	3.00	14.50	21.40	3.60
10	19.50	25.90		15.00				32.00		17.40	25.90	
12	24.00	29.10		19.05				35.20		21.90	29.10	

Oval flange receptacle with PCB contacts

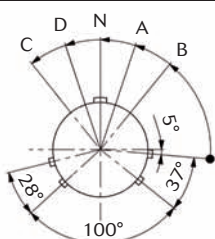


Panel cut out



Shell size	A max.	B ±0.20	ØC ⁰ _{+0.1}	ØD ^{+0.2} _{-0.13}	E ⁰ _{+0.15}	F ⁰ _{-0.13}	G max.	ØH max.	L max.	P max.	Panel cut out		
											ØA ±0.10	B ±0.20	ØC ±0.20
08	16.50	21.40	3.20	12.00	17.21	16.05	27.65	11.10	27.20	3.00	14.50	21.40	3.60
10	19.50	25.90		14.97				13.90	32.00		17.40	25.90	
12	24.00	29.10		19.05				17.35	35.20		21.90	29.10	

Orientation



View from front face of plug

Shell size	N Red	A Yellow	B Blue	C Orange	D Green
08	95°	77°	-	-	113°
10	95°	81°	67°	123°	109°
12	95°	75°	63°	127°	116°

For each shell size, U orientation can be mateable with any other orientations.

Note: All dimensions are in millimeters (mm)

8STA Series

High Density



Contacts

Crimp contacts

Shell size	Contact type	Contact Ø max.	Part numbers	Admissible wire section				External Ø over insulation (mm)	
				mm ²		AWG		Min.	Max.
				Min.	Max.	Min.	Max.		
02, 04 & 06	Male	0.50	8599-1001 JL	0.095	0.24	30	24	0.60	0.83
	Female		8599-1002 900						
08, 10 & 12	Male		8599-0297	0.055	0.215				
	Female		8599-0298						

PCB contacts

Shell size	Contact type	Contact Ø	Part numbers
08, 10 & 12 shell type 2 only	Male	1.03	F1P1P3E0020ALY
	Female		F1P1ES32001A00

For shell sizes 02, 04 & 06 please consult us.

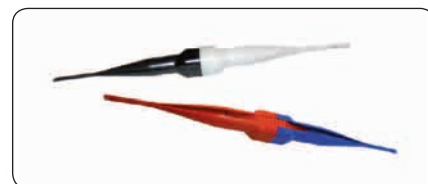
Tooling

Crimping tools

Shell size	Contact type	Locator part number	Plier part number	
			Spec.	SOURIAU
02, 04 & 06	Male	640 088	M22520/2-01	8476-01
	Female	640 089		
08, 10 & 12	Male	8599-0397	M22520/2-01	8476-01
	Female	8599-0398		

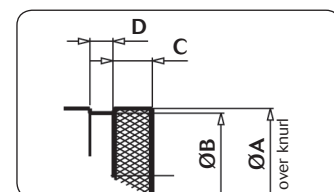
Insertion & extraction tools

Contact layouts	Material	Part number	Colour	
			Insertion	Extraction
02, 04 & 06	Plastic	8599-0444 900	Blue	Red
08, 10 & 12	Plastic	8599-0399 900	Black	White



Shrinkable termination detail

Shell size	02	04	06	08	10	12
ØA	7.20	8.65	9.90	10.62	13.72	17.26
ØB ^{±0.05}	6.55	8.00	9.25/9.40	9.70	12.65	16.02
C ^{±0.05}	2.20	2.70	4.20	6	6	6
D	2.30	2.30	3.50	3.5	3.5	3.5



Note: All dimensions are in millimeters (mm)

8STA Series

High Density



Accessories

Metal protective cap & lanyard

Shell size	Part numbers	
	Plug cap	Receptacle cap
02	8STA802A	8STA902A
04	8STA804A	8STA904A
06	8STA806A	8STA906A
08	8STA808A	8STA908A
10	8STA810A	8STA910A
12	8STA812A	8STA912A

Cord material: Nylon

Cap plating: Black anodic oxydation

Metal protective caps

Shell size	Part numbers	
	Plug cap	Receptacle cap
02	8STA802	8STA902
04	8STA804	8STA904
06	8STA8F06	8STA9F06
08	8STA808	8STA908
10	8STA810	8STA910
12	8STA812	8STA912

Nut plates

Shell size	P/N	T (Thread)
02	8STA-02 M2.5	M2.5
	8STA-02 M2.0	M2
04	8STA-04	M2
	8STA-04 M2.5	M2.5
06	8STA-06	M2.5
08	8STA-08	M3
10	8STA-10	
12	8STA-12	



• Nut plates are available for all 8STA (sizes 02 to 24) two holes flanges mounted connector receptacles.

• Their design was specially made for 8STA product family.

Gaskets

Shell size	P/N Standard	P/N Fuel tank
02	8STA-G02	8STA-G02 022
04	8STA-G04	8STA-G04 022
06	8STA-G06	8STA-G06 022
08	8STA-G08	8STA-G08 022
10	8STA-G10	8STA-G10 022
12	8STA-G12	8STA-G12 022



• Gaskets are available for all 8STA sizes (02 to 24)

• They are available in two versions:
 - Standard version: Liquid silicone rubber
 - Fuel tank version: Fluorel

Boots

Shell size	Straight boot		90° boot	
	Raychem	Hellerman	Raychem	Hellerman
02	203W301-25-G02	-	223W601-25	-
04	204W221-25-G03	1037-4-G	224W221-25-G03	1182-4-G
06	204W221	1030-4-G	224W221	1181-4-G
08	202K121	152-42-G	222K121	1152-4-G
10	202K132	152-42-G	222K132	1152-4-G
12	202K142	154-42-G	222K142	1154-4-G

Note: All dimensions are in millimeters (mm)

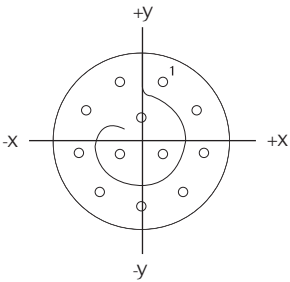
8STA Series

High Density



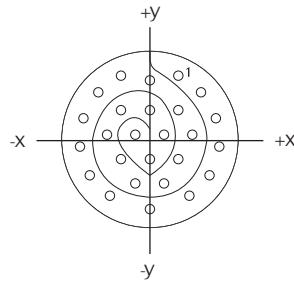
Coordinates for straight PC tail terminations Viewed from front face of male insulator

08-12



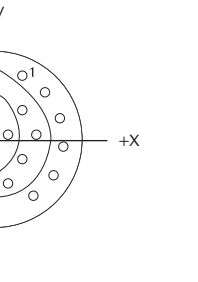
Contact	X	y
1	+0.92	+2.54
2	+2.34	+1.35
3	+2.66	-0.47
4	+1.74	-2.07
5	0.00	-2.70
6	-1.74	-2.07
7	-2.66	-0.47
8	-2.34	+1.35
9	-0.92	+2.54
10	0.00	+1.03
11	+0.89	-0.51
12	-0.89	-0.51

10-26



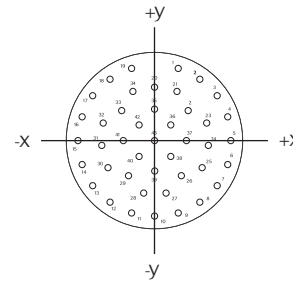
Contact	X	y
1	+1.69	+3.79
2	+3.09	+2.77
3	+3.95	+1.28
4	+4.13	-0.44
5	+3.58	-2.10
6	+2.40	-3.37
7	0.00	-4.13
8	-2.40	-3.37
9	-3.58	-2.10
10	-4.13	-0.44
11	-3.95	+1.28
12	-3.09	+2.77
13	-1.69	+3.79

10-26



Contact	X	y
14	0.00	+3.50
15	+1.70	+1.76
16	+2.55	+0.29
17	+1.70	-1.18
18	+0.85	-2.65
19	-0.85	-2.65
20	-1.70	-1.18
21	-2.55	+0.29
22	-1.70	+1.76
23	0.00	+1.76
24	+0.85	+0.29
25	0.00	-1.18
26	-0.85	+0.29

12-43



Contact	X	y
1	+1.80	+5.54
2	-1.80	+5.54
3	+3.42	+4.71
4	+4.71	+3.42
5	+5.54	+1.80
6	+5.82	0.00
7	+5.54	-1.80
8	+4.71	-3.42
9	+3.42	-4.71
10	+1.80	-5.54
11	0.00	-5.82
12	-1.80	-5.54
13	-3.42	-4.71
14	-4.71	-3.42
15	-5.54	-1.80

Contact	X	y
16	-5.82	0.00
17	-5.54	+1.80
18	-4.71	+3.42
19	-3.42	+4.71
20	0.00	+4.12
21	+1.68	+3.76
22	+2.54	+2.28
23	+3.92	+1.27
24	+4.10	-0.43
25	+3.57	-2.06
26	+1.99	-2.74
27	+0.86	-4.03
28	-0.86	-4.03
29	-1.99	-2.74

Contact	X	y
30	-3.57	-2.06
31	-4.10	-0.43
32	-3.92	+1.27
33	-2.54	+2.28
34	-1.68	+3.76
35	0.00	+2.42
36	+1.21	+1.21
37	+2.42	0.00
38	+1.21	-1.21
39	0.00	-2.42
40	-1.21	-1.21
41	-2.42	0.00
42	-1.21	+1.21
43	0.00	0.00



SOURIAU

For further information contact us at contactmilaero@souriau.com
or visit our web site www.motorsport-connectors.com