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# 8LT Connectors



## Description

- High contact density
- Bayonet coupling
- Contact protection : 100% Scoop proof
- Shell size from 9 to 25
- Accessories available (protective caps, backshells, etc...)
- RFI - EMI shielding and shell to shell continuity
- Hermetic
- Alluminium alloy, protection by cadmium, nickel, green zinc cobalt or black zinc nickel plating

## Applications

- Civil and Military Aerospace
- Marine Equipments
- Communications Equipements
- Medical Instrumentation
- Ballistic Missiles & Weapon Systems
- Armored Carriers & Tanks
- Test Equipments

## Technical features

### Mechanical

- Shell: aluminum alloy
- Plating:
  - . olive green cadmium (B)
  - . nickel (F)
  - . green zinc cobalt (Z)
  - . black zinc nickel (L)
- Insulator: thermoplastic or metallic version available for specification 284 & 384
- Grommet or seal: liquid silicone rubber or fluorocarbene elastomer for specification 022
- Contact: copper alloy
- Plating contact: gold over nickel
- Endurance: 500 mating / unmating operations

- Chock: 300 g during 3 ms and as per MIL S 901 grade A
- Vibration:
  - . Sine 10 to 2000 Hz - 30 g
  - . Random 100 à 300 Hz - 5 g<sup>2</sup>/Hz
- Contact retention (min force in N):
  - . Size 22D: 44 N
  - . Size 20: 67 N
  - . Size 16: 111 N
  - . Size 12: 111 N
  - . Size 8: 111 N
  - . Size 4: 200 N

### Electrical

- Test voltage (Vrms)

Service	sea level	at 21 000 m
M	1 300	800
N	1 000	600
I	1 800	1 000
II	2 300	1 000

- Insulation resistance:  $\geq 5\ 000\ MW$  (at 500 Vcc)
- Contact resistance:
  - resistance of wire included in measurement
  - . size 22D: 14.6 m $\Omega$
  - . size 20: 7.3 m $\Omega$
  - . size 16: 3.8 m $\Omega$
  - . size 12: 3.5 m $\Omega$
  - . size 8: 3 m $\Omega$
  - . size 4: 2 m $\Omega$
- Contact rating:
  - . size 22D: 5 A
  - . size 20: 7.5 A
  - . size 16: 13 A
  - . size 12: 23 A
  - . size 8: 45 A
  - . size 4: 80 A
- Shell continuity:
  - . olive green plating: 2.5 m $\Omega$
  - . nickel plating: 1 m $\Omega$
  - . green zinc cobalt: 2.5 m $\Omega$
  - . black zinc nickel: 2.5 m $\Omega$

- Shielding: 90 db at 100 MHz, 50 db at 10 000 MHz
- Electrical continuity between contact and shell for specification 284 & 384: 10 m $\Omega$  max

### Climatic

- Temperature range:
  - . olive green cadmium plating (B)
    - 65°C +175°C
  - . nickel plating (F)
    - 65°C +200°C
  - . green zinc cobalt plating (Z)
    - 65°C +200°C
  - . black zinc nickel plating (L)
    - 65°C +200°C
- Sealing: mated connectors
  - Differential pressure 2 bars:
    - leakage  $\leq 16\ cm^3/h$
- Salt spray as per:
  - . MIL STD 1344 method 1001 :
    - 500 hours (versions B, L and Z)
    - 48 hours (version F)
  - . NFC 93422 :
    - 48 hours (version F)
- Resistance to fluids
  - . As per MIL DTL 38999, hydraulic fluids, solvents
  - . Specification 022 for fuel immersion (please consult us)

# 8LT Connectors



## Cross reference list :

Part Numbers Souriau and Specifications : NFC 93422 / MIL DTL 38999

## Connectors

SOURIAU	NFC 93422 HE 308	MIL DTL 38999 Serie I	Designation
8LT1●●B●●P/SN 8LT1●●F●●P/SN	- -	- -	Cable connecting receptacle
8LT0●●B●●P/SN 8LT0●●F●●P/SN	HE30800T●●●●●P/SN7 M HE30800T●●●●●P/SN6 M	MS27466T●●B●●P/S●* MS27466T●●F●●P/S●*	Square flange receptacle
8LT2●●B●●P/SN 8LT2●●F●●P/SN	- -	MS27505E●●B●●P/S●* MS27505E●●F●●P/S●*	Square flange receptacle not accepting backshell
8LT3●●B●●P/SN 8LT3●●F●●P/SN	- -	MS27656T●●B●●P/S●* MS27656T●●F●●P/S●*	Square flange receptacle (rear mounting)
8LT5●●B●●P/SN 8LT5●●F●●P/SN	HE30806T●●●●●P/SN7 M HE30806T●●●●●P/SN6 M	MS27467T●●B●●P/S●* MS27467T●●F●●P/S●*	Plug with RFI shielding
8LT15●●B●●P/SN 8LT15●●F●●P/SN	- -	MS27467E●●B●●P/S●* MS27467E●●F●●P/S●*	Plug with RFI shielding not accepting backshell
8LT7●●B●●P/SN 8LT7●●F●●P/SN	HE30807T●●●●●P/SN7 M HE30807T●●●●●P/SN6 M	MS27468T●●B●●P/S●* MS27468T●●F●●P/S●*	Jam nut receptacle
8LT7S●●B●●P/SN (#22D) 8LT7S●●F●●P/SN (#22D)	HE30811T●●●●●P/SN7 M HE30811T●●●●●P/SN6 M	- -	Jam nut receptacle with straight spill contacts
8LT7C●●B●●P/SN (#20, #16, #12) 8LT7C●●F●●P/SN (#20, #16, #12)	HE30811T●●●●●P/SN7 M HE30811T●●●●●P/SN6 M	- -	Jam nut receptacle with straight spill contacts
8LT26●●B●●P/SN 8LT26●●F●●P/SN	HE30826T●●●●●P/SN7 M -	- -	Floating plug for rack HE308
8LT27●●B●●P/SN 8LT27●●F●●P/SN	HE30827T●●●●●P/SN7 M -	- -	Receptacle for rack HE308 with possibility to mount rear accessories
8LT27S●●B●●P/SN (#22D) 8LT27C●●B●●P/SN (#20, #16, #12)	HE30821T●●●●●P/SN7 M HE30821T●●●●●P/SN7 M	- -	Receptacle for rack HE308 with straight spill contacts
8LT23●●B●●P/SN	-	-	Square flange receptacle

\* Standard P/S : . None = N position,  
. Use A,B,C,D for other orientations

## Backshells

SOURIAU	NFC 93422 HE 308	MIL DTL 38999 Serie I	Designation
8LST●●●B01 8LST●●●F01	- -	M8504927●●W M8504927●●N	Backnut
8LST●●●B02 8LST●●●F02 8LST●●●G02	- HE308-11●●●26 HE308-11●●●27	- - -	Straight cable clamp
8LST●●●B03 8LST●●●F03 8LST●●●G03	- HE308-12●●●26 HE308-12●●●27	- - -	Elbow cable clamp
8LST●●●B071 8LST●●●F071	HE308-13●●●17 HE308-13●●●16	- -	Backshell for screen termination and heatshrink sleeving

# 8LT Connectors



## Caps

SOURIAU	NFC 93422 / HE 308	MIL DTL 38999 Serie I	Designation
8LTE04B●● 8LTE04F●●	HE308-B00●●7 HE308-B00●●6	- -	Cap for square flange receptacle
8LTE06B●● 8LTE06F●●	HE308-B07●●7 HE308-B07●●6	- -	Cap for jam nut receptacle
8LTF05B●● 8LTF05F●●	HE308-B16●●7 HE308-B16●●6	- -	Cap for plug
8LTF07B●● 8LTF07F●●	HE308-B06●●7 HE308-B06●●6	- -	Cap for plug
8LTE01B●● 8LTE01F●●	- -	MS27502B●●C MS27502F●●C	Cap for receptacle
8LTE02B●● 8LTE02F●●	- -	MS27502B●●N MS27502F●●N	Cap for receptacle
8LTF01B●● 8LTF01F●●	- -	MS27501B●●C MS27501F●●C	Cap for plug

## Contacts

See pages 32 to 36

## Filler plug

Contact size	Part Number		Colour
	SOURIAU	MIL DTL 38999 serie I	
#22D	8660-212	MS27488-22	Black
#20	8522-389A	MS27488-20	Red
#16	8522-390A	MS27488-16	Blue
#12	8522-391A	MS27488-12	Yellow

## Insertion and extraction tools

Contact size	Part Number		Colour	
	SOURIAU	MIL DTL 38999 Serie I	Insertion	Extraction
#22D	8599-0022	M81969/14-01	Green	White
#20	8522-20	M81969/14-10	Red	Orange
#16	8522-16	M81969/14-03	Blue	White
#12	8522-12	M81969/14-04	Yellow	White

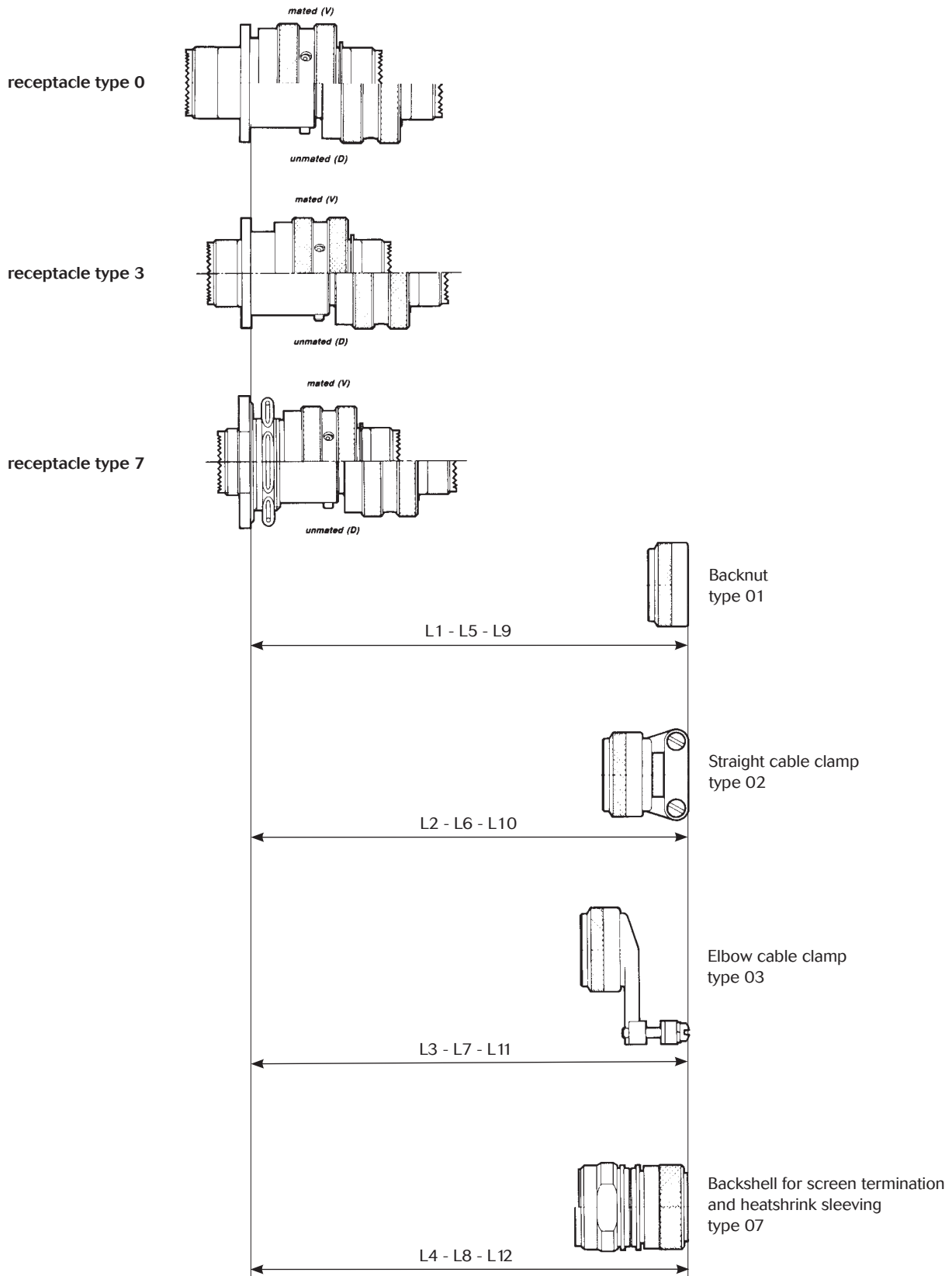
For other contact size see page 41

# 8LT Connectors



## Mated connectors with backshells

Mated plug : Dimension from panel to backshell



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Square flange receptacle type 0 Cable connecting receptacle type 1								
Shell size	L1 Max		L2 Max		L3 Max		L4 Max	
	V	D	V	D	V	D	V	D
09	40.20	55.20	50.75	65.75	64.20	79.20	55.75	70.75
11	40.20	55.20	51.75	66.55	64.20	79.20	55.75	70.75
13	40.20	55.20	53.05	68.05	66.20	81.20	55.75	70.75
15	40.20	55.20	59.45	74.45	70.56	85.56	57.75	72.75
17	40.20	55.20	62.95	77.95	74.93	89.93	57.75	72.75
19	40.20	55.20	62.95	77.95	75.34	90.34	58.75	73.75
21	40.20	55.20	62.95	77.95	77.32	92.32	62.55	77.55
23	40.20	55.20	62.95	77.95	80.87	95.87	62.55	77.55
25	40.20	55.20	62.95	77.95	83.67	98.67	62.55	77.55

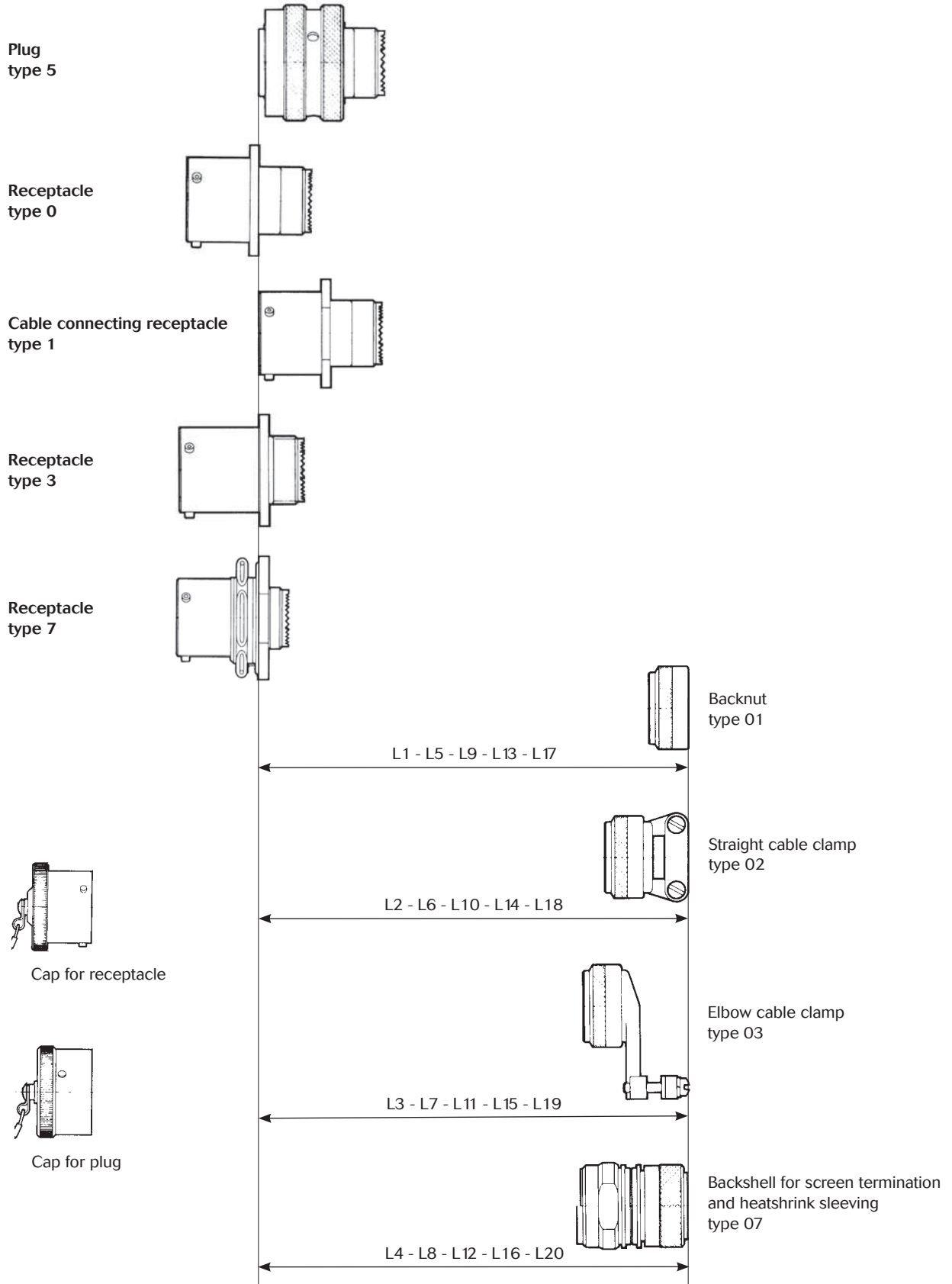
Square flange receptacle type 3								
Shell size	L5 Max		L6 Max		L7 Max		L8 Max	
	V	D	V	D	V	D	V	D
09	42.50	57.50	53.05	68.05	66.50	81.50	58.05	72.05
11	42.50	57.50	54.05	68.05	66.50	81.50	58.05	72.05
13	42.50	57.50	55.80	7.35	65.50	83.50	58.05	72.05
15	42.50	57.50	61.75	76.75	78.86	87.86	60.05	75.05
17	42.50	57.50	65.25	80.25	77.23	92.23	60.05	75.05
19	42.50	57.50	65.25	80.25	77.64	92.64	61.05	76.05
21	41.75	56.75	64.50	79.50	78.87	93.87	64.10	79.10
23	41.75	56.75	64.50	79.50	82.42	97.42	64.10	79.10
25	41.75	56.75	64.50	79.50	85.22	100.22	64.10	79.10

Jam nut receptacle type 7								
Shell size	L9 Max		L10 Max		L11 Max		L12 Max	
	V	D	V	D	V	D	V	D
09	45.02	60.02	55.58	70.58	69.04	84.04	60.58	75.58
11	45.02	60.02	56.38	71.38	69.04	84.04	60.58	75.58
13	45.02	60.02	57.88	72.88	71.02	84.04	60.58	75.58
15	45.02	60.02	64.28	79.28	75.39	86.02	62.58	77.58
17	45.02	60.02	67.78	82.78	79.76	90.39	62.58	77.58
19	45.02	60.02	67.78	82.78	80.17	94.76	63.58	78.58
21	45.02	60.02	67.78	82.78	82.15	95.17	67.38	82.38
23	45.02	60.02	67.78	82.78	85.70	100.70	67.38	82.38
25	45.02	60.02	67.78	82.78	88.50	103.50	67.38	82.38

# 8LT Connectors



## Plug or receptacle backshell assembly overall length



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Plug type 5				
Shell size	L1 Max	L2 Max	L3 Max	L4 Max
09	36.66	47.22	60.68	52.22
11	36.66	48.02	60.68	52.22
13	36.66	49.52	62.66	52.22
15	36.66	55.92	67.03	54.22
17	36.66	59.42	71.40	54.22
19	36.66	59.42	71.81	55.22
21	36.66	59.42	73.79	59.02
23	36.66	59.42	77.34	59.02
25	36.66	59.42	80.14	59.02

Receptacle type 0				
Shell size	L5 Max	L6 Max	L7 Max	L8 Max
09	18.83	29.39	42.85	34.39
11	18.83	30.19	42.85	34.39
13	18.83	31.69	44.83	34.39
15	18.83	38.09	51.00	36.39
17	18.83	41.59	53.57	36.39
19	18.83	41.59	53.98	37.39
21	18.83	41.59	55.98	41.19
23	18.83	41.59	59.51	41.19
25	18.83	41.59	62.31	41.19

Cable connecting receptacle type 1				
Shell size	L9 Max	L10 Max	L11 Max	L12 Max
09	37.36	47.98	61.38	52.92
11	37.36	48.72	61.38	52.92
13	37.36	50.22	63.36	52.92
15	37.36	56.62	69.53	54.92
17	37.36	60.12	72.10	54.92
19	37.36	60.12	72.51	55.92
21	37.36	60.12	74.49	59.72
23	37.36	60.12	78.04	59.72
25	37.36	60.12	80.84	59.72

Receptacle type 3				
Shell size	L13 Max	L14 Max	L15 Max	L16 Max
09	15.85	26.40	39.90	31.40
11	15.85	27.20	39.90	31.40
13	15.85	28.70	41.90	31.40
15	15.85	35.10	48.10	33.40
17	15.85	38.60	50.60	33.40
19	15.85	38.60	51.00	34.40
21	15.85	39.40	53.80	39.00
23	15.85	39.40	57.30	39.00
25	15.85	39.40	60.10	39.00

Receptacle type 7				
Shell size	L17 Max	L18 Max	L19 Max	L20 Max
09	13.66	24.22	37.68	29.22
11	13.66	25.22	37.68	29.22
13	13.66	26.52	39.66	29.22
15	13.66	32.92	45.83	31.22
17	13.66	36.42	48.40	31.22
19	13.66	36.42	48.81	32.22
21	13.66	36.42	50.79	36.02
23	13.66	36.42	54.34	36.02
25	13.66	36.42	57.14	36.02

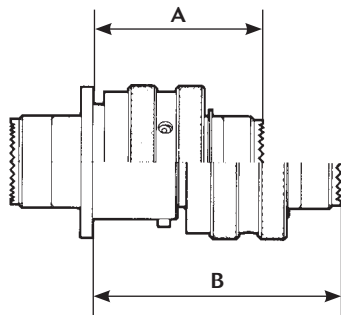


# 8LT Connectors

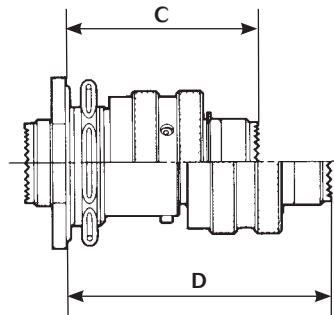


## Mated connectors dimensions

Type 0 with plug  
(type 5)



Type 7 with plug  
(type 5)



Shell Size	A Max	B Max	C Max	D Max
09	33.30	47.40	40.60	54.70
11				
13				
15				
17				
19	32.50	46.70	40.60	54.70
21				
23				
25				

# 8LT Connectors



## Souriau connector part numbers

<b>Basic series</b>	<b>8LT</b>	<b>0</b>	<b>-</b>	<b>13</b>	<b>B</b>	<b>35</b>	<b>P</b>	<b>N</b>	<b>***</b>	<b>-</b>	<b>L</b>
<b>Shell type</b>											
<b>0:</b> Square flange receptacle <b>1:</b> Cable connecting receptacle <b>2:</b> Short square flange receptacle, not accepting backshell <b>3:</b> Square flange receptacle (rear mounting) <b>5:</b> Plug with RFI shielding <b>7:</b> Jam nut receptacle <b>15:</b> Plug with RFI shielding, not accepting backshell											
<b>Type</b>											
<b>None:</b> Connector with standard crimp contacts <b>L:</b> Connector with long spill (male and female #22D) <b>C:</b> Connector with short spill (male and female #22D, #20, #16, #12, #8 quadrax) <b>T:</b> Connector with male contact size 20 for wire wrap (2 wraps) <b>W:</b> Connector with male contact size 22D for wire wrap (3 wraps) <b>S:</b> Connector with specific straight spill (male and female #22D only) <b>Q:</b> Connector with quadrax crimp contacts											
<b>Shell size</b>											
09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25											
<b>Plating</b>											
<b>F:</b> Nickel <b>B:</b> Olive green cadmium <b>Z:</b> Green zinc cobalt <b>L:</b> Black zinc nickel											
<b>Contact layout</b>											
See tables pages 14 to 19											
<b>Contact type</b>											
<b>P:</b> Male <b>A:</b> Connector supplied less pin contact or with specific contacts (Connector marking : A + orientation) <b>S:</b> Female <b>B:</b> Connector supplied less socket contact or with specific contacts (Connector marking : B + orientation)											
<b>Orientation (1)</b>											
N, A, B, C, D    see table page 37											
<b>Specifications</b>											
<b>None:</b> Supplied with contact <b>*284:</b> Quadrax grounded (cts 100 ) (2) <b>046:</b> Straight spill contact with tinned plating <b>308:</b> Quadrax not grounded (cts 100 ) (2) <b>251:</b> Connector provided with power contacts with layout contacts #8 <b>*384:</b> Quadrax grounded (cts 150 ) (2) <b>022:</b> Fuel tank Please consult us <b>408:</b> Quadrax not grounded (cts 150 ) (2)											
<b>Special custom</b>											
<b>None:</b> Standard plastic cap <b>M:</b> Antistatic plastic cap											
<b>L:</b> For P or S contact type only, connector delivered without contacts, connector marking P or S (without L )											

\*Excepted mixed layouts with quadrax and signal contacts. Please consult us.

(1) Orientations B & C not developed for shell size number 9.

(2) Type shell 0, 3 and 5 available only.

# 8LT Connectors



## MIL DTL 38999 part numbers

<b>Basic series</b>	<b>MS</b>	<b>27466</b>	<b>T</b>	<b>13</b>	<b>B</b>	<b>35</b>	<b>P</b>	<b>-</b>	<b>-</b>	<b>L</b>
<b>Shell type</b>										
27466: Square flange receptacle (front mounting)										
27656: Square flange receptacle (rear mounting)										
27468: Jam nut receptacle										
27467: Plug with RFI shielding										
27505: Square flange receptacle, not accepting backshell										
<b>Class</b>										
E: Without thread for back fitting, not accepting backshell for MS27505 and MS27467 only										
T: With thread for backfitting, supplied without backshell (excepted MS27505)										
<b>Shell size</b>										
09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25										
<b>Plating</b>										
F: Nickel      B: Olive green cadmium										
<b>Contact layout</b>										
See tables pages 14 to 19										
<b>Contact type</b>										
P: Male      A: Connector supplied less pin contact or with specific contacts (Connector marking : A + orientation)										
S: Female    B: Connector supplied less socket contact or with specific contacts (Connector marking : B + orientation)										
<b>Orientation (1)</b>										
None: Normal (N)										
A, B, C, D see table page 37										
<b>Special custom</b>										
None: Standard plastic cap										
M: Antistatic plastic cap										
L: For P or S contact type only, connector delivered without contacts, connector marking P or S (without L)										

(1) Orientations B & C not developed for shell size number 9.

# 8LT Connectors



## HE 308 part numbers

<b>Basic series</b>	HE308	00	T	13	35	P	N	7	M	-	L
<b>Shell type</b>											
00: Square flange receptacle											
07: Jam nut receptacle											
06: Plug with RFI shielding											
11: Jam nut receptacle with straight spill contacts											
<b>Class</b>											
T: Sealed											
<b>Shell size</b>											
09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25											
<b>Contact layout</b>											
See tables pages 14 to 19											
<b>Contact type</b>											
P: Male											
S: Female											
<b>Orientation (1)</b>											
N, A, B, C, D see table page 37											
<b>Plating</b>											
6: Nickel											
7: Olive green cadmium											
<b>Contractual spécification</b>											
<b>Special custom</b>											
None: Standard plastic cap											
M: Antistatic plastic cap											
<b>Specification</b>											
None: Connector supplied with contact											
L: connector supplied without contact											

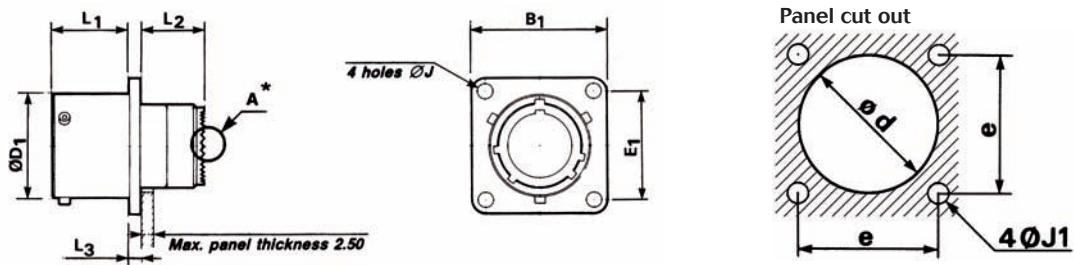
(1) Orientations B & C not developed for shell size number 9.

# 8LT Connectors



## Dimensions

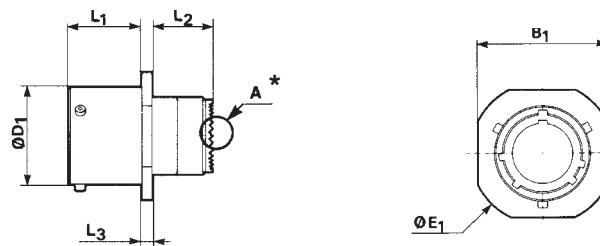
### Receptacle type 0



Shell size		09	11	13	15	17	19	21	23	25
B1	Min	23.70	26.05	28.50	30.85	33.20	36.40	39.55	42.75	46.00
	Max	24.30	26.70	29.05	31.45	33.80	37.00	40.15	43.35	46.50
E1		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.93	38.10
D1	Min	14.40	17.65	21.40	24.65	27.82	29.24	33.70	36.92	40.06
	Max	14.53	17.78	21.59	24.77	27.94	30.66	33.83	37.00	40.18
J	Min	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.73	3.73
	Max	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.83	3.83
L1	Min	15.93	15.93	15.93	15.93	15.93	15.93	15.17	15.17	15.17
	Max	16.05	16.05	16.05	16.05	16.05	16.05	15.29	15.29	15.29
L2	Min	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23
	Max	13.49	13.49	13.49	13.49	13.49	13.49	13.49	13.49	13.49
L3	Min	2.14	2.14	2.14	2.14	2.14	2.14	2.90	2.90	2.90
	Max	2.54	2.54	2.54	2.54	2.54	2.54	3.30	3.30	3.30
d	Min	15.70	18.70	21.80	25.00	28.30	31.00	34.20	37.30	40.50
J1	± 0.15	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.91	3.91
e		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.92	38.10

\* Detail A see page 27

### Cable connecting receptacle type 1



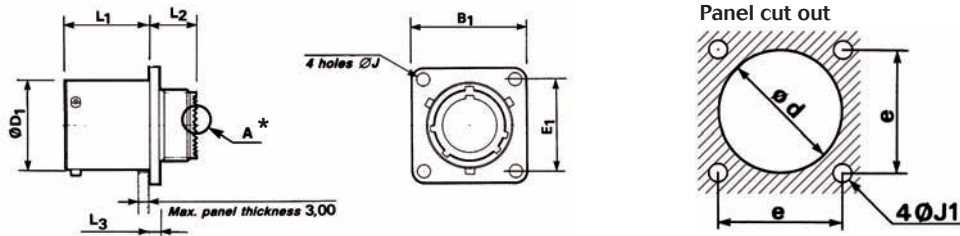
Shell size		09	11	13	15	17	19	21	23	25
B1	Min	18.35	21.65	25.05	27.25	30.78	34.05	37.45	41.45	45.93
	Max	18.92	22.22	25.62	27.82	31.35	34.62	38.02	42.02	46.50
E1	Min	21.80	25.10	28.50	30.70	34.10	37.50	40.90	44.90	49.40
	Max	22.35	25.65	29.05	31.25	34.65	38.05	41.45	45.45	49.95
D1	Min	14.40	17.65	21.40	24.65	27.82	29.24	33.70	36.92	40.06
	Max	14.53	17.78	21.59	24.77	27.94	30.66	33.83	37.00	40.18
L1	Min	15.93	15.93	15.93	15.93	15.93	15.93	15.17	15.17	15.17
	Max	16.05	16.05	16.05	16.05	16.05	16.05	15.29	15.29	15.29
L2	Min	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23
	Max	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45
L3	Min	2.14	2.14	2.14	2.14	2.14	2.14	2.90	2.90	2.90
	Max	2.54	2.54	2.54	2.54	2.54	2.54	3.30	3.30	3.30

\* Detail A see page 27

# 8LT Connectors



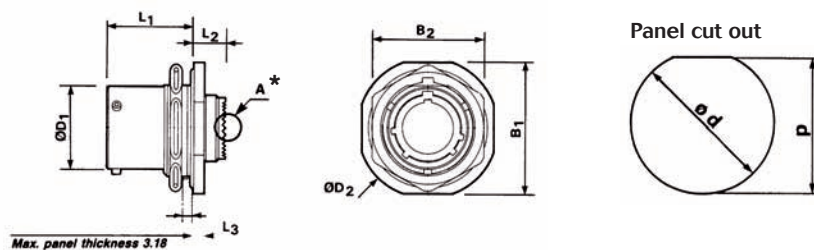
## Receptacle type 3



Shell size		09	11	13	15	17	19	21	23	25
B1	Min	23.70	26.05	28.50	30.85	33.20	36.40	39.55	42.75	46.00
	Max	24.30	26.70	29.05	31.45	33.80	37.00	40.15	43.35	46.50
E1		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.93	38.10
D1	Min	14.40	17.65	21.40	24.65	27.82	29.24	33.70	36.92	40.06
	Max	14.53	17.78	21.59	24.77	27.94	30.66	33.83	37.00	40.18
J	Min	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.73	3.73
	Max	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.83	3.83
L1	Min	20.71	20.71	20.71	20.71	20.71	20.71	19.96	19.96	19.96
	Max	20.83	20.83	20.83	20.83	20.83	20.83	20.08	20.08	20.08
L2	Min	10.40	10.40	10.40	10.40	10.40	10.40	11.15	11.15	11.15
	Max	11.90	11.90	11.90	11.90	11.90	11.90	12.70	12.70	12.70
L3	Min	2.14	2.14	2.14	2.14	2.14	2.14	2.90	2.90	2.90
	Max	2.54	2.54	2.54	2.54	2.54	2.54	3.30	3.30	3.30
d	Min	16.66	20.22	23.42	26.59	30.96	32.94	36.12	39.29	42.47
J1	± 0.15	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.91	3.91
e		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.92	38.10

\* Detail A see page 27

## Receptacle type 7 & HE 308 type 11



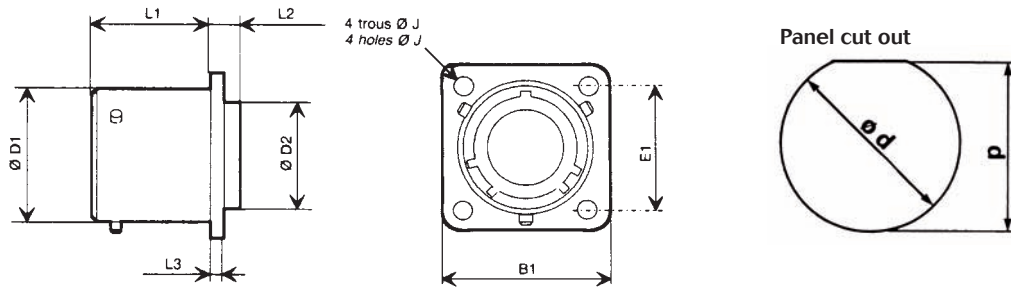
Shell size		09	11	13	15	17	19	21	23	25
B1	Min	26.60	31.40	34.60	37.80	40.90	45.63	48.84	52.02	55.19
	Max	27.35	32.10	35.31	38.49	41.63	46.37	49.58	52.76	55.93
B2	Min	21.95	25.15	29.80	33.05	36.25	39.40	42.60	45.75	50.65
	Max	22.35	25.55	30.30	33.45	36.65	39.80	43.00	46.15	50.95
D1	Min	14.40	17.65	21.40	24.65	27.82	29.24	33.70	36.92	40.06
	Max	14.53	17.78	21.59	24.77	27.94	30.66	33.83	37.00	40.18
D2	Min	29.90	34.60	37.75	41.00	44.11	48.90	52.00	55.30	58.40
	Max	30.58	35.30	38.50	41.65	44.85	49.60	52.75	55.94	59.10
L1	Min	23.12	23.12	23.12	23.12	23.12	23.12	23.12	23.12	23.12
	Max	23.36	23.36	23.36	23.36	23.36	23.36	23.36	23.36	23.36
L2	Min	8.18	8.18	8.18	8.18	8.18	8.18	8.18	8.18	8.18
	Max	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32	8.32
L3	Min	2.60	2.60	2.60	2.60	2.60	3.35	3.35	3.35	3.35
	Max	3.00	3.00	3.00	3.00	3.00	3.79	3.79	3.79	3.79
d	0/-0.25	17.78	20.96	25.65	28.83	32.00	35.18	38.35	41.53	44.70
p	0/-0.25	17.02	18.58	24.26	27.56	30.73	33.91	37.08	40.26	43.45

\* Detail A see page 27

# 8LT Connectors

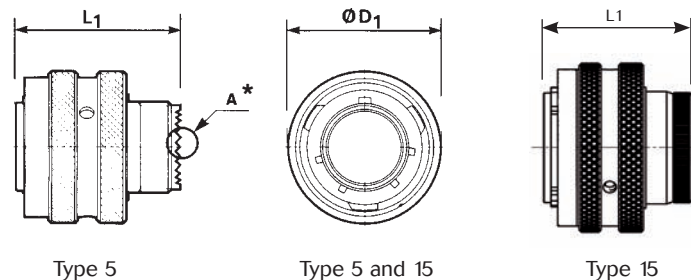


## Square flange receptacle type 2



Shell size		09	11	13	15	17	19	21	23	25
B1	Min	23.70	26.05	28.50	30.85	33.20	36.40	39.55	42.75	46.00
	Max	24.30	26.70	29.05	31.45	33.80	37.00	40.15	43.35	46.50
E1		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.93	38.10
D1	Min	14.40	17.65	21.40	24.65	27.82	29.24	33.70	36.92	40.06
	Max	14.53	17.78	21.59	24.77	27.94	30.66	33.83	37.00	40.18
D2	Min	9.85	12.80	16.00	18.95	22.10	25.10	28.25	31.40	34.60
	Max	9.95	12.90	16.10	19.05	22.20	25.20	28.35	31.50	34.70
J	Min	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.73	3.73
	Max	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.83	3.83
L1	Min	20.71	20.71	20.71	20.71	20.71	20.71	19.96	19.96	19.96
	Max	20.83	20.83	20.83	20.83	20.83	20.83	20.08	20.08	20.08
L2	Min	5.40	5.40	5.40	5.40	5.40	5.40	6.15	6.15	6.15
	Max	5.55	5.55	5.55	5.55	5.55	5.55	6.35	6.35	6.35
L3	Min	2.14	2.14	2.14	2.14	2.14	2.14	2.90	2.90	2.90
	Max	2.54	2.54	2.54	2.54	2.54	2.54	3.30	3.30	3.30
d	Min	16.66	20.22	23.42	26.59	30.96	32.94	36.12	39.29	42.47
J1	± 0.15	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.91	3.91
e		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.92	38.10

## Plug type 5 & type 15



Shell size		09	11	13	15	17	19	21	23	25
D1	Min	14.35	17.70	21.50	24.65	27.85	30.55	33.75	36.90	40.10
	Max	21.80	25.00	29.30	32.50	35.70	38.50	41.70	43.85	48.00
L1	Min	31.28	31.28	31.28	31.28	31.28	31.28	31.28	31.28	31.28
	Max	31.35	31.35	31.35	31.35	31.35	31.35	31.35	31.35	31.35

\* Detail A see page 27

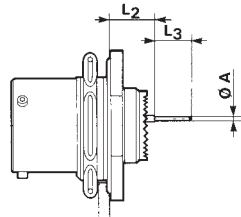
Dimensions in millimeters

# 8LT Connectors

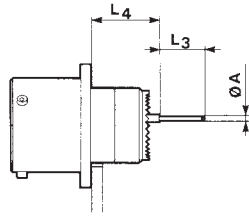


## Receptacle with straight spill contact

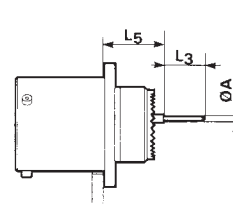
receptacle type 7



receptacle type 0



receptacle type 3



Shell Size				09	11	13	15	17	19	21	23	25	
Ø A	Contact Size	Contact Type *	Spill Contact **										
Ø A	#22D	M & F	C & L	0.70									
			S	0.50									
	M	M	0.50										
	#20	M & F	C	0.70									
#16	M & F	C	1.15										
L3	#22D	M & F	C	4 <sup>0</sup> <sub>-0.20</sub>									
			S	5 <sup>±0.1</sup>									
	L	8.5 <sup>0</sup> <sub>-0.20</sub>											
	M	M	6 <sup>±0.1</sup>										
#20	M & F	C	5 <sup>±0.1</sup>										
#16	M & F	C	5 <sup>±0.1</sup>										
L2 type 7	8LT #22D	M	C & L	Max	10.06								
			Min	9.07									
		M	Max	10.21									
		Min	9.23										
	F	C & L	Max	10.06									
		Min	8.74										
	8LT7S HE308 #22D	M	S	Max	10.23								
			Min	9.24									
F	S	Max	10.23										
	Min	8.91											
8LT HE308 #20 & #16	M & F	C	Max	10.23									
			Min	9.24									
L4 type 0	#22D	M	C & L	Max	15.08								
			Min	13.91									
		M	Max	15.22									
		Min	14.05										
	F	C & L	Max	15.08									
		Min	13.58										
	M	S	Max	15.25	-								15.25
			Min	14.08	-								14.08
	F	S	Max	15.25	-								15.25
			Min	13.75	-								13.75
#20 & #16	M & F	C	Max	15.25									
			Min	14.08									
L5 type 3	#22D	M	C & L	Max	12.47				13.22				
			Min	11.60				12.35					
		F	C & L	Max	12.47				13.22				
			Min	11.27				12.02					
	M	S	Max	12.64	-			12.64	13.39				
			Min	11.77	-			11.77	12.52				
	F	S	Max	12.64	-			12.64	13.39				
			Min	11.44	-			11.44	12.19				
#20 & #16	M & F	C	Max	12.64				13.39					
			Min	11.77				12.52					

\* M: Male Contact, F: Female Contact

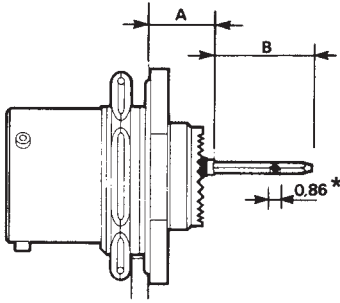
\*\* C: Short Spill, M: Medium Spill, L: Long Spill, S: Specific Spill



# 8LT Connectors



## Receptacle type 7 with wire wrap contacts

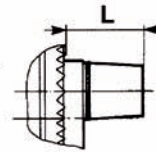


Contact size	Contact type	A	B Max
#22D	W 3 wraps	9.07 to 10.06	16.00
#20	T 2 wraps	9.7 to 10.06	12.60

\* See page 35

## Detail A

sealing bushing used for triaxial # 8 protude



Shell Type	Type 0	Type 1	Type 3	Type 5	Type 7
L max	13.39	13.58	13.58	13.54	13.58

# 8LT Connectors



## SOURIAU Rack and Panel connectors part numbers

Basic series	8 LT	27	-	15	B	35	P	N	-	-	L
<b>Shell type</b>											
27: Receptacle for rack, for male contacts, with possibility to mount rear accessory											
23: Square flange receptacle (consult us)											
26: Floating plug for rack, for crimp female contacts, with possibility to mount rear accessory											
<b>Type</b>											
None: Connector with standard crimp contacts											
Q: Connector with quadrax crimp contacts											
C: Connector with short spill (male and female #20, #16, #12, #8 quadrax)											
S: Connector with specific straight spill (male and female #22D only)											
L: Connector with long spill (male and female #22D)											
<b>Shell size:</b> 11, 13, 15, 17, 19, 21, 23, 25											
<b>Plating</b>											
F: Nickel      B: Olive green cadmium											
<b>Contact layout:</b> See tables pages 14 to 19											
<b>Contact type</b>											
P: Male      S: Female											
<b>Polarization:</b> N											
<b>Specification</b>											
None: Supplied with contacts											
251: Connector provided with power contacts (for layout with cavities #8)											
*284: Quadrax grounded (cts 100Ω)											
308: Quadrax not grounded (cts 100Ω)											
*384: Quadrax grounded (cts 150Ω)											
408: Quadrax not grounded (cts 150Ω)											
<b>Special custom</b>											
None: Standard plastic cap      M: Antistatic plastic cap											
L: Connector supplied without contacts											

\*Excepted mixed layouts with quadrax and signal contacts. Please consult us.

## HE 308 Rack and Panel connectors part numbers

Basic series	HE308	26	T	23	01	P	N	7	M	-	-
<b>Shell type</b>											
26: Floating plug for rack, for crimp female contacts, with possibility to mount rear accessory											
27: Receptacle for rack, for male contacts, with possibility to mount rear accessory											
21: Receptacle for rack with straight spill contacts											
<b>Class</b>											
T: Sealed											
<b>Shell size:</b> 11, 13, 15, 17, 19, 21, 23											
<b>Contact layout:</b> See tables pages 14 to 19											
<b>Contact type</b>											
P: Male      S: Female											
<b>Polarization:</b> N											
<b>Plating</b>											
7: Olive green cadmium											
<b>Contractual specifications</b>											
M: DAT quality insurance											
<b>Special custom</b>											
None: Standard plastic cap      M: Antistatic plastic cap											
<b>Specifications</b>											
None: Connector supplied with contact      L: Connector supplied without contact											

# 8LT Connectors

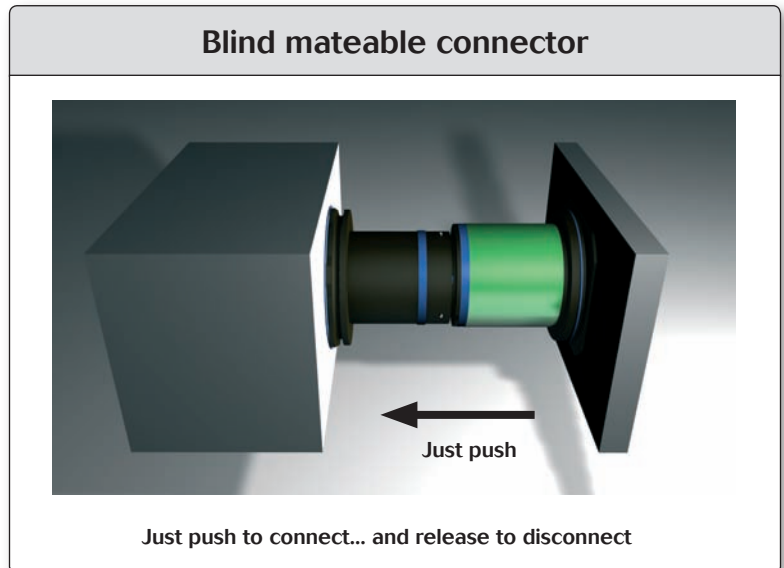


## Rack & Panel, features and benefits

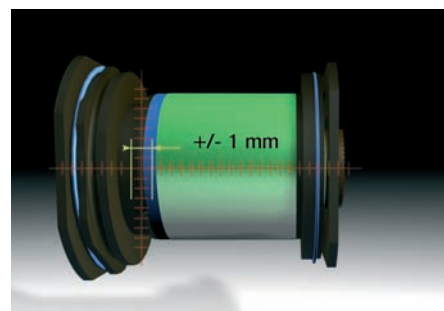
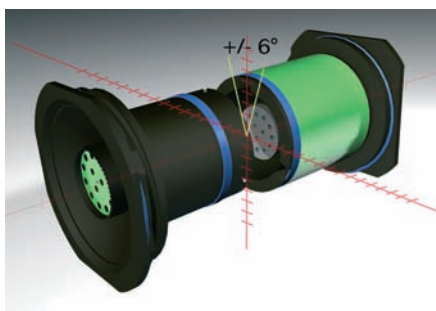
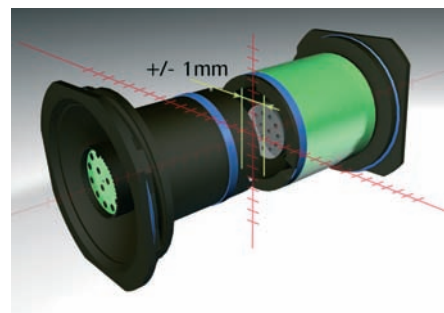
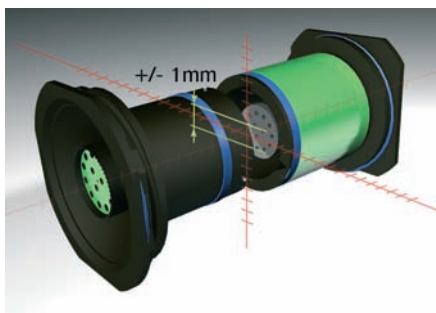
- Signal and Power connector
- Easy and fast connection without any coupling/uncoupling between a float-mounting unit and a fixed unit.
- 100% scoop proof
- Plug misalignment allowed
- Rear accessories available
- 8 shell sizes available: from 11 to 23 with DTAT-C5935-X0005 layout - including power contact cavities
- Sealing as per HE 308
- EMI performances as per DTAT-C5935-X0005

Shell Size	Mated Force (daN)	Unmated Force (daN)
11	20	12
13	30	13
15	35	15
17	50	16
19	55	18
21	65	22
23	80	27
25 *	-	-

\* Please consult us



## Superior misalignment allowances

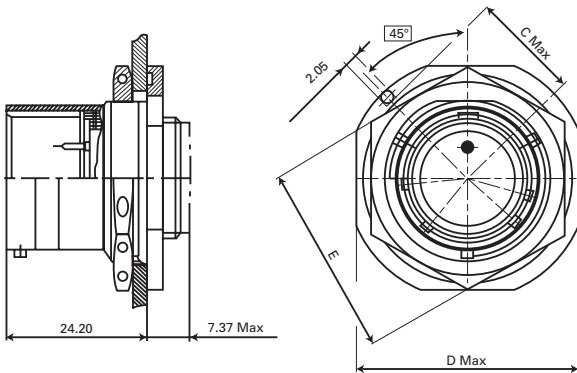


# 8LT Connectors



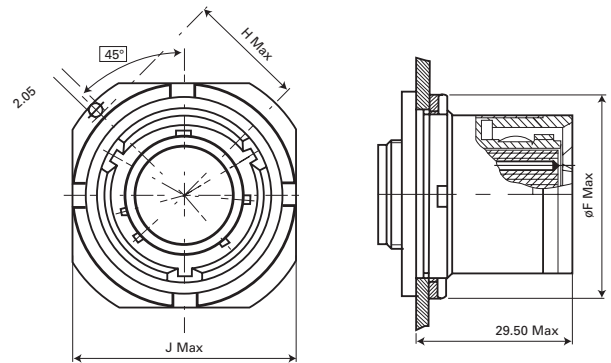
## Rack & Panel, dimensions

### Equipment receptacle (type 27)



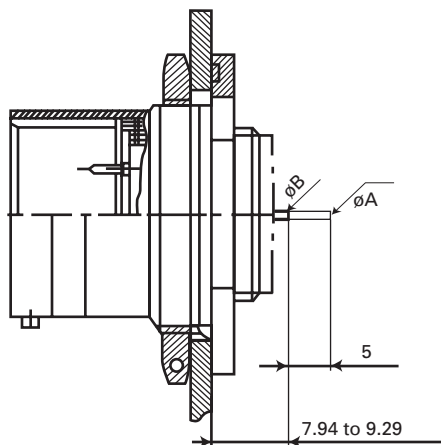
Shells	11	13	15	17	19	21	23	25
<b>C Max</b>	15.33	16.92	18.51	20.10	22.67	24.26	25.84	27.43
<b>D Max</b>	32.16	35.34	38.51	41.69	46.43	49.64	52.78	56.00
<b>E</b>	25.55	30.30	33.45	36.65	39.80	43	46.15	50.95

### Rack plug (type 26)



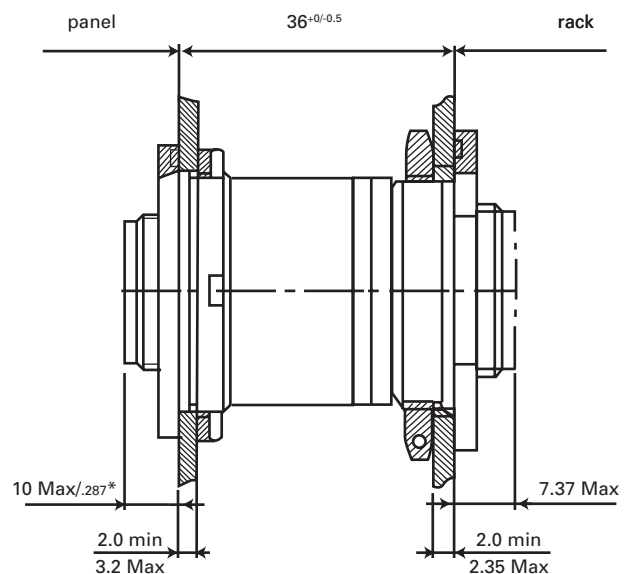
Shells	11	13	15	17	19	21	23	25
<b>øF Max</b>	32.10	35.25	38.40	41.60	46.30	49.60	52.70	55.90
<b>H Max</b>	16.92	18.51	20.10	22.67	24.26	25.84	27.43	29.03
<b>J Max</b>	32.16	35.34	38.51	41.69	46.43	49.64	52.78	55.96

### Square flange receptacle (type 23)



Contact size	#22D	#20	#16
<b>A</b>	0.5	0.7	1.15
<b>B</b>	1	1.5	2.2

### Mated connectors plug (type 26) and receptacle (type 27)



\*Included longitudinal alignment

# 8LT Connectors



## Rack & Panel, panel cut

**Plug panel cut**

Shell size	Plug			
	W	$\varnothing X^\circ$	K mini	$\varnothing A$
11	12.81	25.58	32.57	$\varnothing 2^{-0.05}$
13	13.94	28.80	36	
15	15.06	31.98	39.60	
17	16.88	35.15	43.30	
19	18	38.28	47	
21	19.12	41.50	50.60	
23	20.24	44.68	54.20	
25 *	-	-	-	

**Receptacle panel cut**

Shell size	Plug			
	W	$\varnothing X^\circ$	K mini	$\varnothing A$
11	12.81	25.58	32.57	$\varnothing 2^{-0.05}$
13	13.94	28.80	36	
15	15.06	31.98	39.60	
17	16.88	35.15	43.30	
19	18	38.28	47	
21	19.12	41.50	50.60	
23	20.24	44.68	54.20	
25 *	-	-	-	

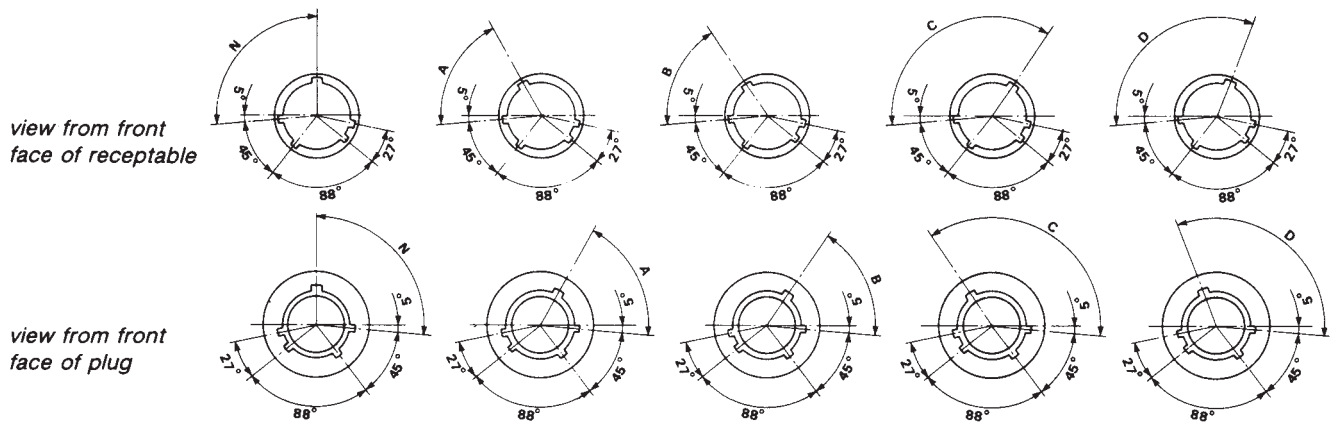
\* Please consult us

# 8LT Connectors



## Orientations

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



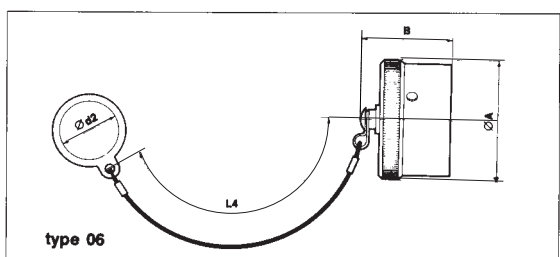
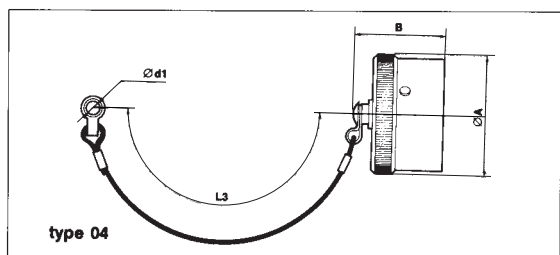
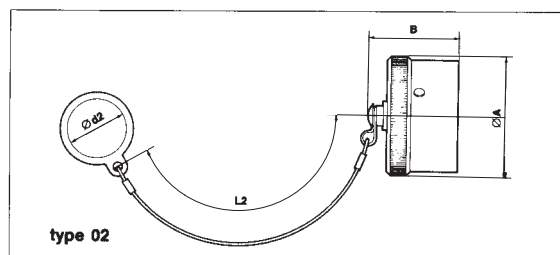
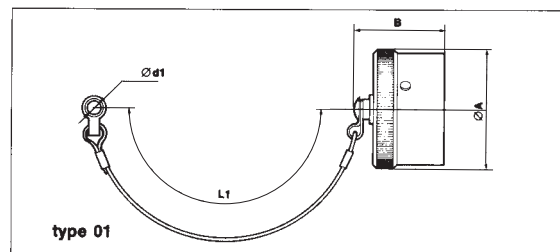
Shell size	Angles (degrees)				
	N	A	B	C	D
09	95	77	-	-	113
11	95	81	67	123	109
13	95	75	63	127	115
15	95	74	61	129	116
17	95	77	65	125	113
19	95	77	65	125	113
21	95	77	65	125	113
23	95	80	69	121	110
25	95	80	69	121	110

# 8LT Connectors

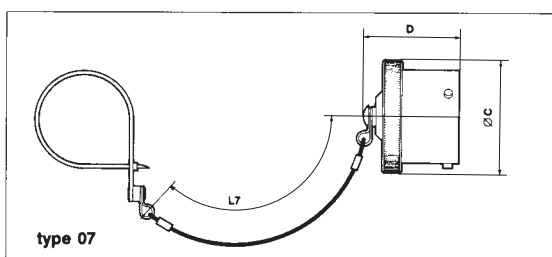
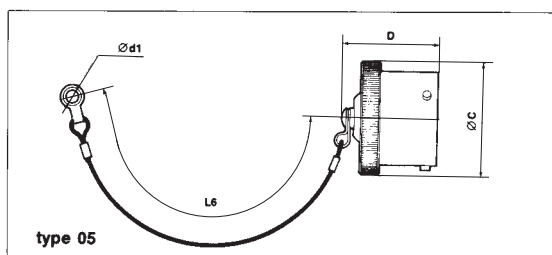
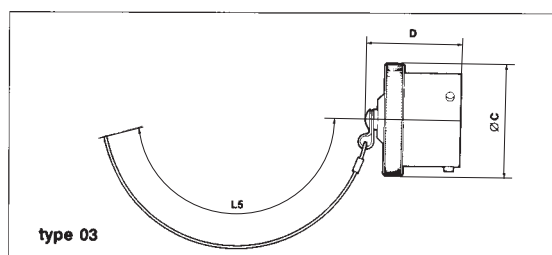
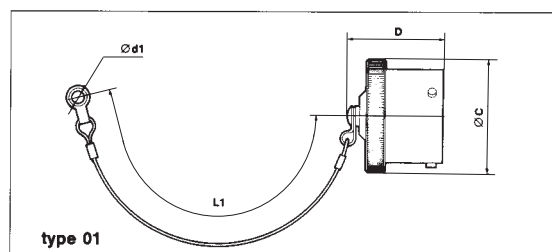


## Accessories

### Protective cap for receptacles



### Protective cap for plugs



Shell size	A Max	B Max	C Max	D Max	d1 min	d2 min	L1	L2	L3±5	L4±5	L5±5	L6±5	L7±5
09	21.80	28.00	20.80	29.50	3.20	17.80	76	76	105	105	200	160	160
11	24.90	28.00	23.80	29.50	3.20	21.30	76	76	105	105	200	160	160
13	29.40	28.00	27.70	29.50	3.20	25.70	89	89	105	105	200	160	160
15	32.50	28.00	30.20	29.50	3.20	29.00	89	89	105	105	200	160	160
17	35.80	28.00	33.50	29.50	3.20	32.00	89	89	105	105	200	160	160
19	38.60	28.00	36.50	29.50	3.20	35.30	89	89	105	105	200	160	160
21	41.90	28.00	39.80	29.50	3.20	38.40	102	102	105	105	200	160	160
23	44.90	28.00	42.90	29.50	3.20	41.70	102	102	105	105	200	160	160
25	48.00	28.00	46.20	29.50	3.20	44.70	102	102	105	105	200	160	160

# 8LT Connectors

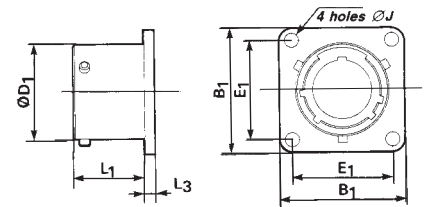


## Protective caps

<b>Basic series</b>	<b>8LT</b>	<b>E</b>	<b>01</b>	<b>B</b>	<b>13</b>
<b>Cap type</b>					
E: Cap for receptacle					
F: Cap for plug					
<b>Fixing type</b>					
<b>Cap for receptacle</b>			<b>Cap for plug</b>		
01: Plastic sleeved metal card with eyelet			01: Plastic sleeved metal card with eyelet		
02: Plastic sleeved metal card with ring			03: Nylon cord without fastener		
04: Nylon cord with eyelet			05: Nylon cord with eyelet		
06: Nylon cord with ring			07: Nylon cord with strap		
10: Black nylon cord with eyelet					
<b>Plating</b>					
B: Olive green cadmium					
F: Nickel					
<b>Shell size:</b> 09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25					

## Dummy receptacle

Shell size	Part numbers	L1 Max	L3 Max	D1 Max	B1 Max	E1	J
09	8LT0-09GUR	16.05	2.54	14.53	24.25	18.26	3.25
11	8LT0-11GUR	16.05	2.54	17.78	26.60	20.62	3.25
13	8LT0-13GUR	16.05	2.54	21.59	29.00	23.01	3.25
15	8LT0615GUR	16.05	2.54	24.77	31.35	24.61	3.25
17	8LT0-17GUR	16.05	2.54	27.94	33.75	26.97	3.25
19	8LT0-19GUR	16.05	2.54	30.66	36.90	29.36	3.25
21	8LT0-21GUR	15.29	3.30	33.83	40.10	31.75	3.25
23	8LT0-23GUR	15.29	3.30	37.00	43.25	34.93	3.73
25	8LT0-25GUR	15.29	3.30	40.18	46.50	38.10	3.73



## Plastic protective caps

Shell size	Part numbers for standard cap	
	Caps for receptacle	Caps for plug
09	8500-5594	70609
11	MS90376-12R	MS90376-16Y
13	8500-5588A	8500-5600
15	8500-5589A	8500-5601
17	MS90376-20YF	8500-5602
19	8500-5601	8500-5592A
21	8500-5602	8500-5593A
23	MS90376-24R	MS90376-24R
25	8500-5593A	J599ABC6009A00

Shell size	Part numbers for antistatic cap	
	Caps for receptacle	Caps for plug
09	MS90376-10RF	MS90376-14RF
11	MS90376-12RF	MS90376-16RF
13	8500-5588N	8500-5600N
15	MS90376-18YF	8500-5601N
17	MS90376-20YF	8500-5602N
19	8500-5601N	8500-5592N
21	8500-5602N	8500-5593N
23	MS90376-24RF	-
25	8500-5593N	-



# 8LT Connectors



## Panel gasket

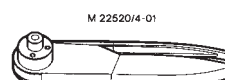
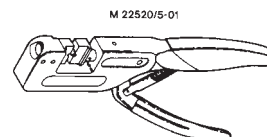
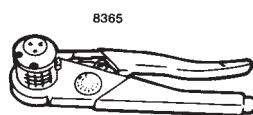
Shell size	Part numbers	
	Gasket for receptacle type 0, 2, 3 (to be ordered separately)	O ring for receptacle type 7 (shipped with connector)
09	8599-5541	AS3582-019
11	8599-5542	AS3582-022
13	8599-5543	AS3582-024
15	8599-5544	AS3582-026
17	8599-5545	AS3582-028
19	8599-5546	AS3582-128
21	8599-5547	AS3582-130
23	8599-5548	AS3582-132
25	8599-5549	AS3582-134

## Tooling

### Crimping (#22D, #20, #16 and #12)

Contact size	Wire sizes		Type	Pliers						
				M22520/1-01 (Souriau 8365)		M22520/2-01 (Souriau 8476-01)		M300 BT Locator P / N	M21520/23-01	
	mm <sup>2</sup>	AWG		P / N turret		P / N locator			P / N turret	P / N locator
			Norm/Spec	Souriau	Norm/Spec	Souriau				
#22D	0.38	22	M	-	-	M22520/2-09	8476-09	-	-	-
	0.21	24	F	-	-	M22520/2-07	8476-07	-	-	-
0.15	26									
#20	0.60	20	M	M22520/1-04	8365-04	M22520/2-10	8476-10	-	-	-
	0.38	22	F	M22520/1-04	8365-04	M22520/2-10	8476-10	-	-	-
0.21	24									
#16	1.34	16	M	M22520/1-04	8365-04	-	-	-	-	-
	0.93	18	F	M22520/1-04	8365-04	-	-	-	-	-
0.60	20									
#12	3.18	12	M	M22520/1-04	8365-04	-	-	-	-	-
	1.91	14	F	M22520/1-04	8365-04	-	-	-	-	-
#8 power	8.98 max	8 max	M	-	-	-	-	SP 593	M22520/23-02	8599-9601
			F	-	-	-	-			
#4 power*	10 16	7 4	M	-	-	-	-		M22520/23-04	M22520/23-11
			F	-	-	-	-			

\* Pneumatic pliers



# 8LT Connectors



## Coaxial contact #16

Contat type	Pliers	Locators
Inner contact	M22520/2-01	M22520/2-35
Outer contact	M22520/4-01	M22520/4-02

## Triaxial contact #8

Contat type	Pliers	Locators
Middle contact	M22520/5-01	Y 631 closure B
Inner contact	M22520/2-01	K 709
Ferrule	M22520/5-01	Y 631 closure A

## Quadrax contact #8

Outer body: M2252015-01 crimping tool and M2252015-45 dieset rep B  
 Signal contact: M22520/201 crimping tool and K709 positioner

## Dummy contact #8

Part number  
8599-0308



## Dummy contact #4

Part number  
8599-0310

## Filler plugs

Contact size	Part Numbers		Colour
	Spec	Souriau	
#22D	MS27488-22	8660-212	Black
#20	MS27488-20	8522-389A	Red
#16	MS27488-16	8522-390A	Blue
#12	MS27488-12	8522-391A	Yellow



Direction of introduction  
in grommet

## Insertion and extraction of wired contacts

Contact size	Material	Part Numbers		Colour	
		Spec	Souriau	Insertion	Extraction
#22D	Plastic	M81969/14-01	8599-0022	Green	White
#20	Pastic	M81969/14-10	8522-20	Red	Orange
#16	Plastic	M81969/14-03	8522-16	Blue	White
#12	Plastic	M81969/14-04	8522-12	Yellow	White
#10	Plastic	M81969/14-05	-	Grey	White
#8	Metallic	-	8660-197	manual insertion	No colour
	Plastic	M81969/14-12	-		Red
#4	Metallic	-	8533-8175	-	No colour
	Plastic	M81969/14-07	-		Blue



Colored tip for insertion  
White tip for extraction

8660-197

