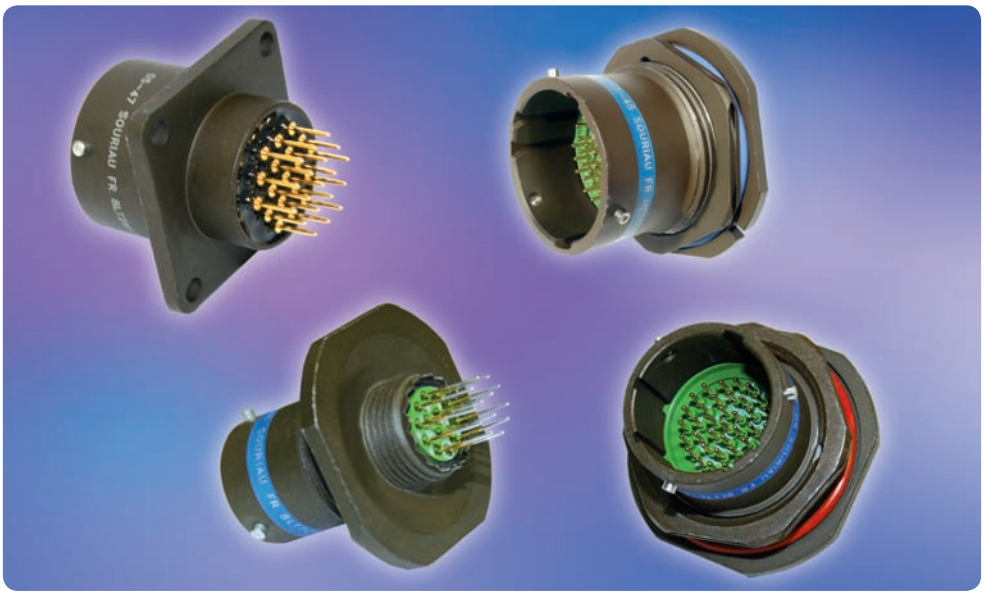
8LT Connectors



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 fluorocarbone 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 g²/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: ≥ 5 000 MW (at 500 Vcc)
- Contact resistance:
  resistance of wire included in measurement
  . size 22D: 14.6 mΩ
  . size 20: 7.3 mΩ
  . size 16: 3.8 mΩ
  . size 12: 3.5 mΩ
  . size 8: 3 mΩ
  . size 4: 2 mΩ
- 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 mΩ
  . nickel plating: 1 mΩ
  . green zinc cobalt: 2.5 mΩ
  . black zinc nickel: 2.5 mΩ
- Shielding: 90 db at 100 MHz, 50 db at 10 000 MHz
- Electrical continuity between contact and shell for specification 284 & 384: 10 mΩ 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 ≤ 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, solvants
  . 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

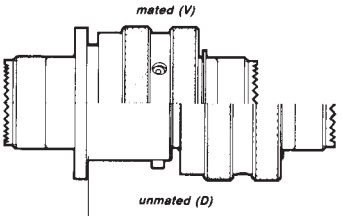
Contact size	Part Number		Colour	
	SOURIAU	MIL DTL 38999 Serie I	Insertion	Extraction
#22D	8599-0022	M81969/14-01	Green	White
#20	8522-20	M81969/14-10	Red	Orange
#16	8522-16	M81969/14-03	Blue	White
#12	8522-12	M81969/14-04	Yellow	White

For other contact size see page 41

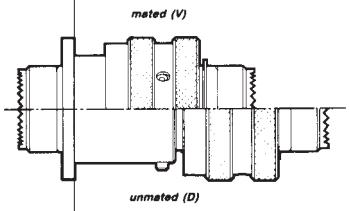
Mated connectors with backshells

Mated plug : Dimension from panel to backshell

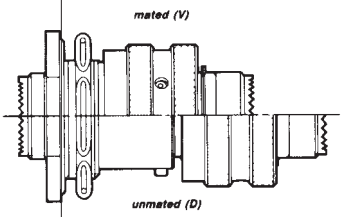
receptacle type 0

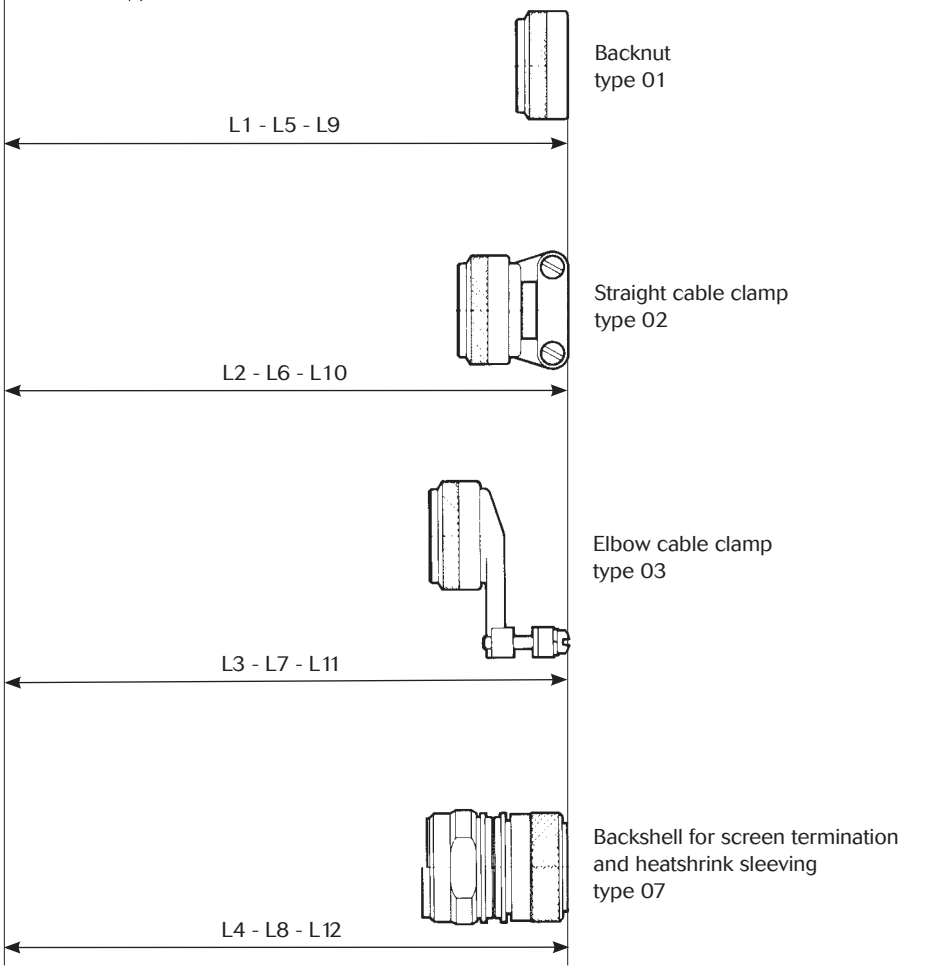


receptacle type 3



receptacle type 7





8LT Connectors

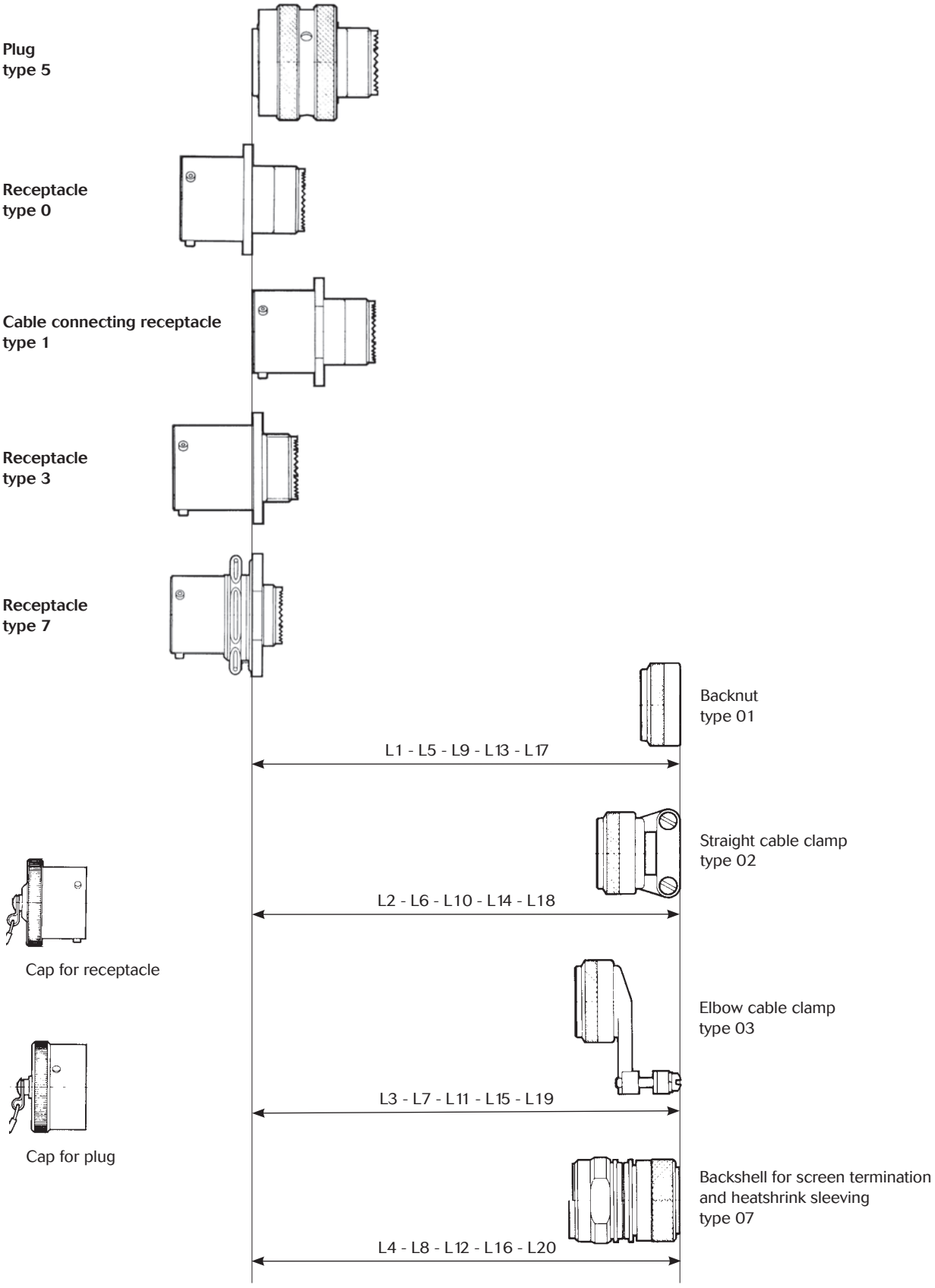
Square flange receptacle type 0 Cable connecting receptacle type 1								
Shell size	L1 Max		L2 Max		L3 Max		L4 Max	
	V	D	V	D	V	D	V	D
09	40.20	55.20	50.75	65.75	64.20	79.20	55.75	70.75
11	40.20	55.20	51.75	66.55	64.20	79.20	55.75	70.75
13	40.20	55.20	53.05	68.05	66.20	81.20	55.75	70.75
15	40.20	55.20	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



8LT Connectors

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

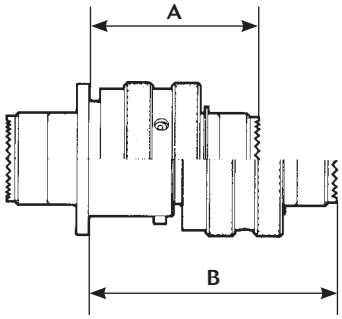
Receptacle type 3				
Shell size	L13 Max	L14 Max	L15 Max	L16 Max
09	15.85	26.40	39.90	31.40
11	15.85	27.20	39.90	31.40
13	15.85	28.70	41.90	31.40
15	15.85	35.10	48.10	33.40
17	15.85	38.60	50.60	33.40
19	15.85	38.60	51.00	34.40
21	15.85	39.40	53.80	39.00
23	15.85	39.40	57.30	39.00
25	15.85	39.40	60.10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

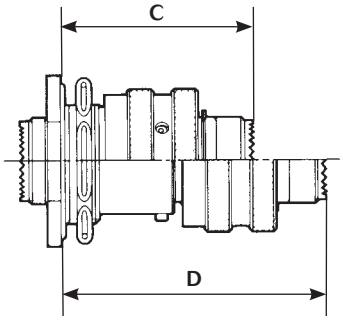
8LT Connectors

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				
21	32.50	46.70		
23				
25				

8LT Connectors

Souriau connector part numbers

Basic series	8LT	0	-	13	B	35	P	N	***	-	L

Shell type
- **0:** Square flange receptacle
- **1:** Cable connecting receptacle
- **2:** Short square flange receptacle, not accepting backshell
- **3:** Square flange receptacle (rear mounting)
- **5:** Plug with RFI shielding
- **7:** Jam nut receptacle
- **15:** Plug with RFI shielding, not accepting backshell

Type
- **None:** Connector with standard crimp contacts
- **L:** Connector with long spill (male and female #22D)
- **C:** Connector with short spill (male and female #22D, #20, #16, #12, #8 quadrax)
- **T:** Connector with male contact size 20 for wire wrap (2 wraps)
- **W:** Connector with male contact size 22D for wire wrap (3 wraps)
- **S:** Connector with specific straight spill (male and female #22D only)
- **Q:** Connector with quadrax crimp contacts

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

Plating
F: Nickel **B:** Olive green cadmium **Z:** Green zinc cobalt **L:** Black zinc nickel

Contact layout
See tables pages 14 to 19

Contact type
- **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)

Orientation (1)
N, A, B, C, D see table page 37

Specifications
- **None:** Supplied with contact
- **046:** Straight spill contact with tinned plating
- **251:** Connector provided with power contacts with layout contacts #8
- **022:** Fuel tank Please consult us
- ***284:** Quadrax grounded (cts 100Ω (2)
- **308:** Quadrax not grounded (cts 100Ω (2)
- ***384:** Quadrax grounded (cts 150Ω (2)
- **408:** Quadrax not grounded (cts 150Ω (2)

Special custom
- **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)

*Excepted mixed layouts with quadrax and signal contacts. Please consult us.
(1) Orientations B & C not developped for shell size number 9.
(2) Type shell 0, 3 and 5 available only.

MIL DTL 38999 part numbers

Basic series	MS	27466	T	13	B	35	P	-	-	L

Shell type
- **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

Class
- **E:** Without thread for back fitting, not accepting backshell for MS27505 and MS27467 only
- **T:** With thread for backfitting, supplied without backshell (excepted MS27505)

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

Plating
F: Nickel **B:** Olive green cadmium

Contact layout
See tables pages 14 to 19

Contact type
- **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)

Orientation (1)
- **None:** Normal (N)
- **A, B, C, D** see table page 37

Special custom
- **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 developped for shell size number 9.

HE 308 part numbers

Basic series	HE308	00	T	13	35	P	N	7	M	-	L

Shell type
- **00:** Square flange receptacle
- **07:** Jam nut receptacle
- **06:** Plug with RFI shielding
- **11 :** Jam nut receptacle with straight spill contacts

Class
- **T:** Sealed

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

Contact layout
- See tables pages 14 to 19

Contact type
- **P:** Male
- **S:** Female

Orientation (1)
- **N, A, B, C, D** see table page 37

Plating
- **6:** Nickel
- **7:** Olive green cadmium

Contractual spécification

Special custom
- **None:** Standard plastic cap
- **M:** Antistatic plastic cap

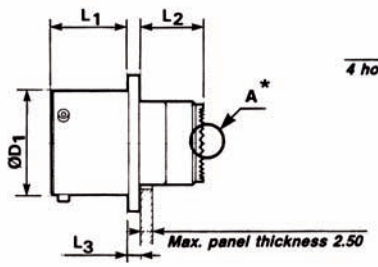
Specification
- **None:** Connector supplied with contact
- **L:** connector supplied without contact

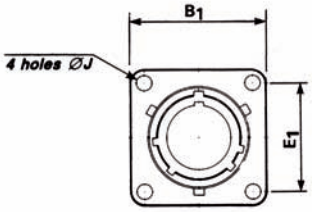
(1) Orientations B & C not developped for shell size number 9.

8LT Connectors

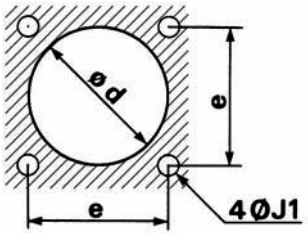
Dimensions

Receptacle type 0





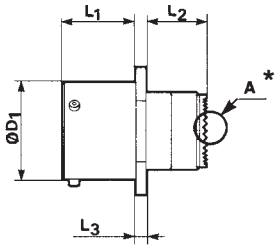
Panel cut out

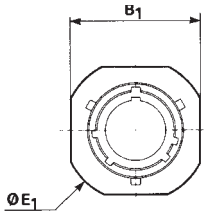


Shell size		09	11	13	15	17	19	21	23	25
B1	Min	23.70	26.05	28.50	30.85	33.20	36.40	39.55	42.75	46.00
	Max	24.30	26.70	29.05	31.45	33.80	37.00	40.15	43.35	46.50
E1		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.93	38.10
D1	Min	14.40	17.65	21.40	24.65	27.82	29.24	33.70	36.92	40.06
	Max	14.53	17.78	21.59	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





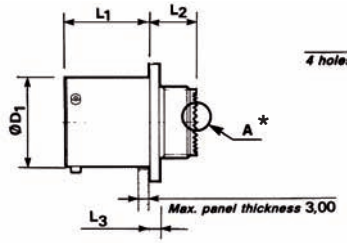
Shell size		09	11	13	15	17	19	21	23	25
B1	Min	18.35	21.65	25.05	27.25	30.78	34.05	37.45	41.45	45.93
	Max	18.92	22.22	25.62	27.82	31.35	34.62	38.02	42.02	46.50
E1	Min	21.80	25.10	28.50	30.70	34.10	37.50	40.90	44.90	49.40
	Max	22.35	25.65	29.05	31.25	34.65	38.05	41.45	45.45	49.95
D1	Min	14.40	17.65	21.40	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

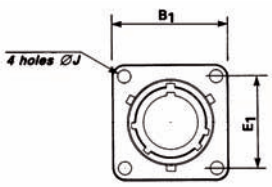
* Detail A see page 27

Dimensions in millimeters

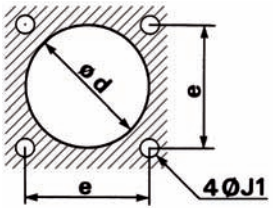
8LT Connectors

Receptacle type 3





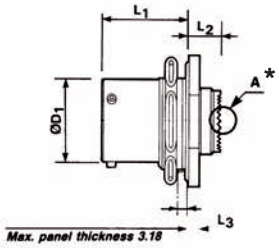
Panel cut out

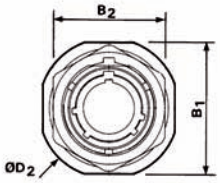


Shell size		09	11	13	15	17	19	21	23	25
B1	Min	23.70	26.05	28.50	30.85	33.20	36.40	39.55	42.75	46.00
	Max	24.30	26.70	29.05	31.45	33.80	37.00	40.15	43.35	46.50
E1		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.93	38.10
D1	Min	14.40	17.65	21.40	24.65	27.82	29.24	33.70	36.92	40.06
	Max	14.53	17.78	21.59	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

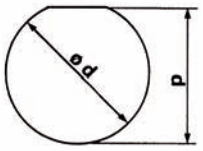
* Detail A see page 27

Receptacle type 7 & HE 308 type 11





Panel cut out



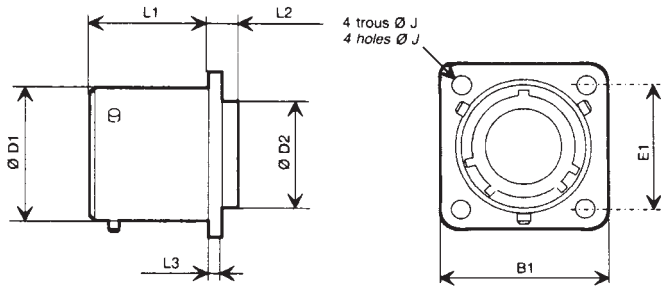
Shell size		09	11	13	15	17	19	21	23	25
B1	Min	26.60	31.40	34.60	37.80	40.90	45.63	48.84	52.02	55.19
	Max	27.35	32.10	35.31	38.49	41.63	46.37	49.58	52.76	55.93
B2	Min	21.95	25.15	29.80	33.05	36.25	39.40	42.60	45.75	50.65
	Max	22.35	25.55	30.30	33.45	36.65	39.80	43.00	46.15	50.95
D1	Min	14.40	17.65	21.40	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

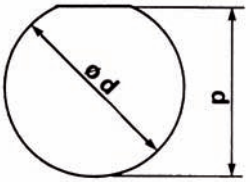
Dimensions in millimeters

8LT Connectors

Square flange receptacle type 2

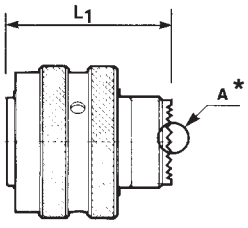


Panel cut out

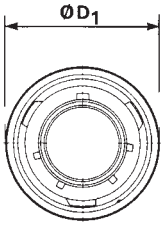


Shell size		09	11	13	15	17	19	21	23	25
B1	Min	23.70	26.05	28.50	30.85	33.20	36.40	39.55	42.75	46.00
	Max	24.30	26.70	29.05	31.45	33.80	37.00	40.15	43.35	46.50
E1		18.26	20.62	23.01	24.61	26.97	29.36	31.75	34.93	38.10
D1	Min	14.40	17.65	21.40	24.65	27.82	29.24	33.70	36.92	40.06
	Max	14.53	17.78	21.59	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

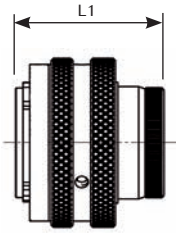
Plug type 5 & type 15



Type 5



Type 5 and 15



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

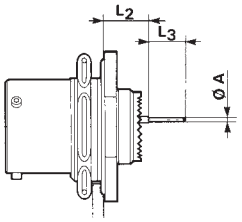
* Detail A see page 27

Dimensions in millimeters

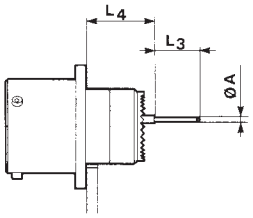
8LT Connectors

Receptacle with straight spill contact

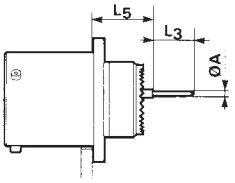
receptacle type 7



receptacle type 0



receptacle type 3



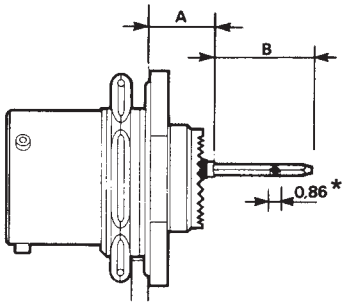
Shell Size					09	11	13	15	17	19	21	23	25
	Contact Size	Contact Type *	Spill Contact **										
Ø A	#22D	M & F	C & L		0.70								
			S		0.50								
		M	M		0.50								
	#20	M & F	C		0.70								
	#16	M & F	C		1.15								
L3	#22D	M & F	C		$4\ ^{0}_{-0.20}$								
			S		$5\ ^{\pm0.1}$								
			L		$8.5\ ^{0}_{-0.20}$								
		M	M		$6\ ^{\pm0.1}$								
	#20	M & F	C		$5\ ^{\pm0.1}$								
	#16	M & F	C		$5\ ^{\pm0.1}$								
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

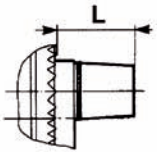


Contact size	Contact type	A	B Max
#22D	W 3 wraps	9.07 to 10.06	16.00
#20	T 2 wraps	9.7 to 10.06	12.60

* 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

Shell type
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

Type
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)

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

Plating
F: Nickel **B:** Olive green cadmium

Contact layout: See tables pages 14 to 19

Contact type
P: Male **S:** Female

Polarization: N

Specification
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)

Special custom
None: Standard plastic cap **M:** Antistatic plastic cap

L: Connector supplied without contacts

*Excepted mixted 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	-	-

Shell type
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

Class
T: Sealed

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

Contact layout: See tables pages 14 to 19

Contact type
P: Male **S:** Female

Polarization: N

Plating
7: Olive green cadmium

Contractual specifications
M: DAT quality insurance

Special custom
None: Standard plastic cap **M:** Antistatic plastic cap

Specifications
None: Connector supplied with contact **L:** Connector supplied without contact

8LT Connectors

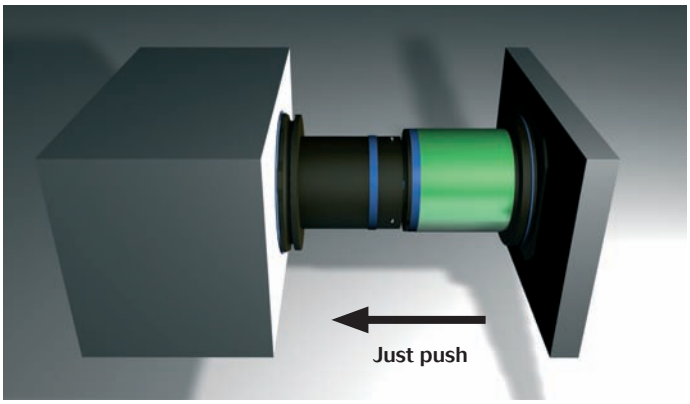
Rack & Panel, features and benefits

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

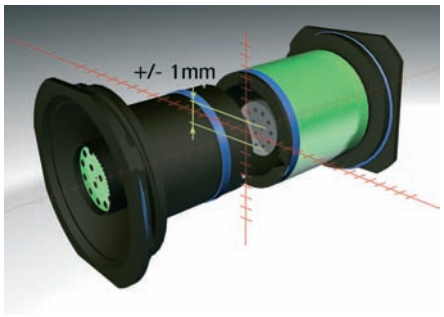
* Please consult us

Blind mateable connector

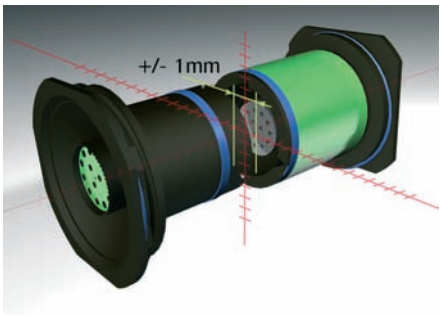


Just push to connect... and release to disconnect

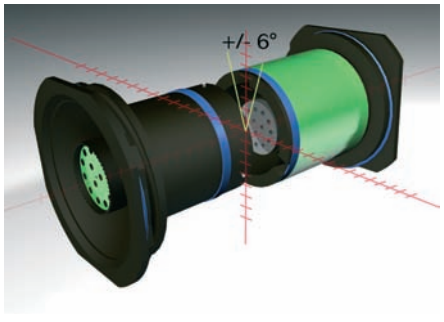
Superior misalignment allowances



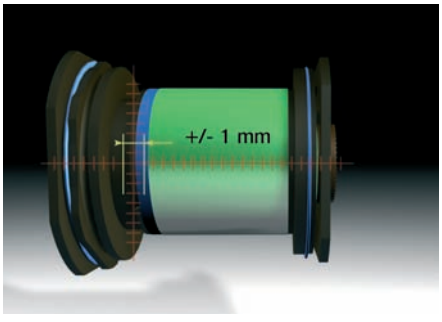
Axial alignment



Axial alignment



Angular aligment

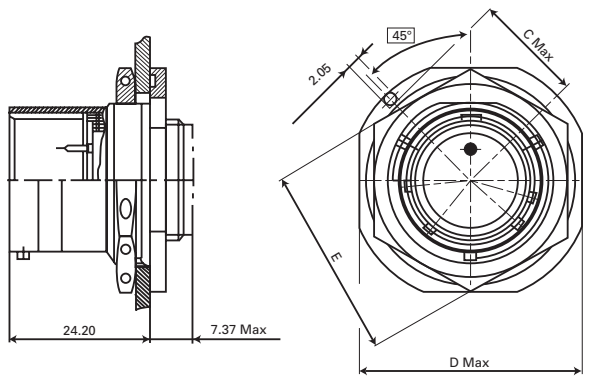


Longitudinal alignment

8LT Connectors

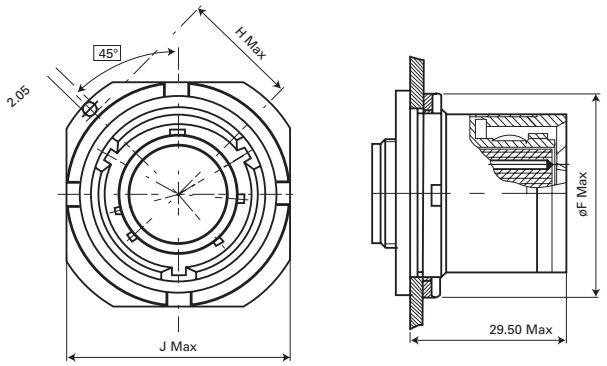
Rack & Panel, dimensions

Equipment receptacle (type 27)



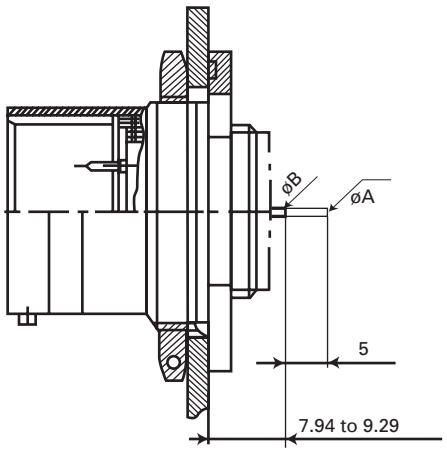
Shells	11	13	15	17	19	21	23	25
C Max	15.33	16.92	18.51	20.10	22.67	24.26	25.84	27.43
D Max	32.16	35.34	38.51	41.69	46.43	49.64	52.78	56.00
E	25.55	30.30	33.45	36.65	39.80	43	46.15	50.95

Rack plug (type 26)



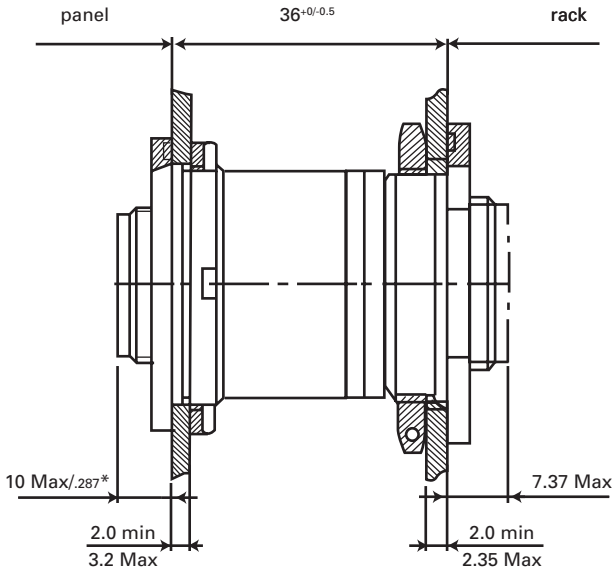
Shells	11	13	15	17	19	21	23	25
ØF Max	32.10	35.25	38.40	41.60	46.30	49.60	52.70	55.90
H Max	16.92	18.51	20.10	22.67	24.26	25.84	27.43	29.03
J Max	32.16	35.34	38.51	41.69	46.43	49.64	52.78	55.96

Square flange receptacle (type 23)



Contact size	#22D	#20	#16
A	0.5	0.7	1.15
B	1	1.5	2.2

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

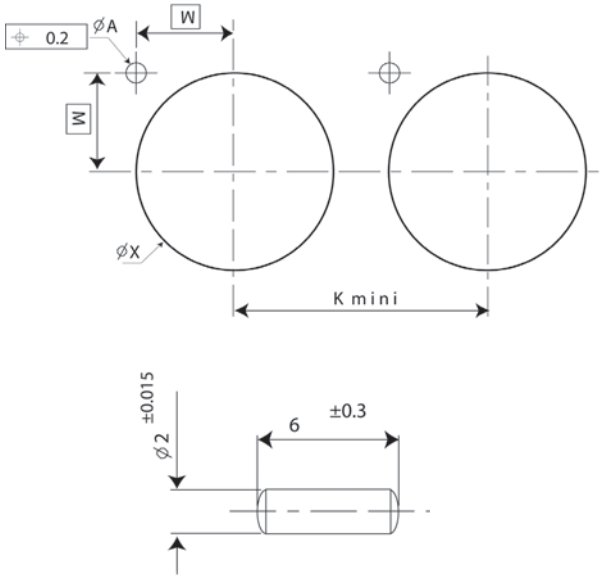


*Included longitudinal alignment

8LT Connectors

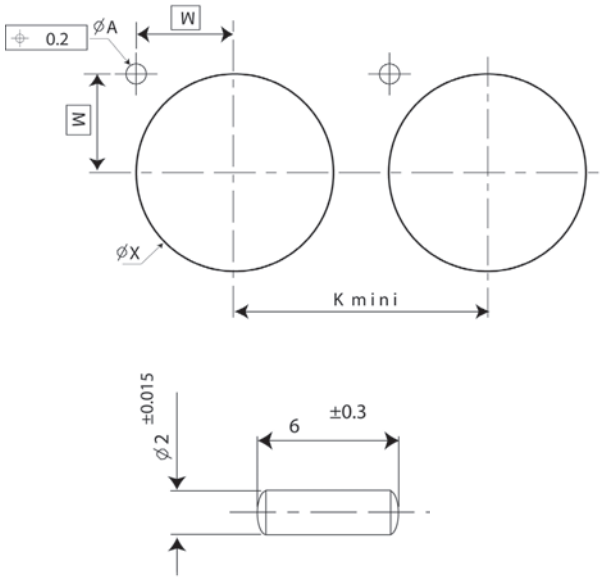
Rack & Panel, panel cut

Plug panel cut



Shell size	Plug			
	W	Ø X °	K mini	Ø A
11	12.81	25.58	32.57	Ø 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	Ø X °	K mini	Ø A
11	12.81	25.58	32.57	Ø 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

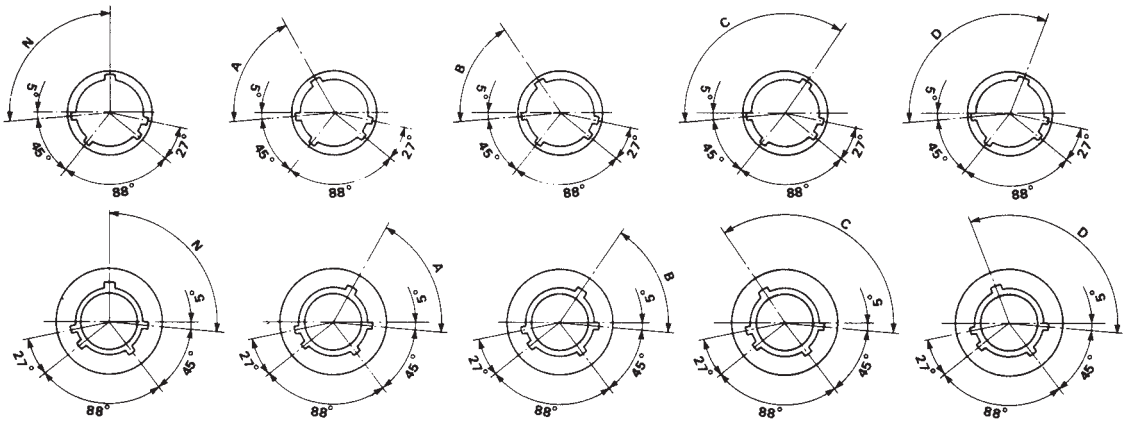
8LT Connectors

Orientations

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

view from front face of receptable

view from front face of plug

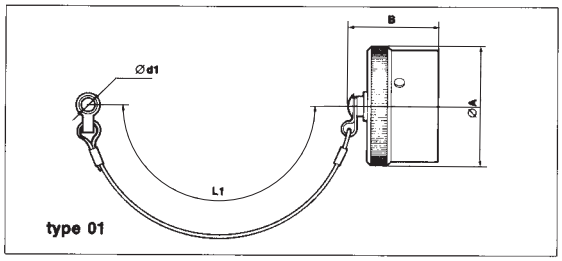


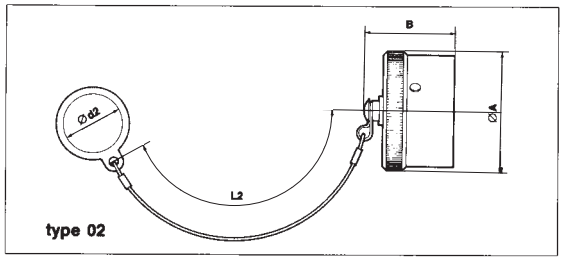
Shell size	Angles (degrees)				
	N	A	B	C	D
09	95	77	-	-	113
11	95	81	67	123	109
13	95	75	63	127	115
15	95	74	61	129	116
17	95	77	65	125	113
19	95	77	65	125	113
21	95	77	65	125	113
23	95	80	69	121	110
25	95	80	69	121	110

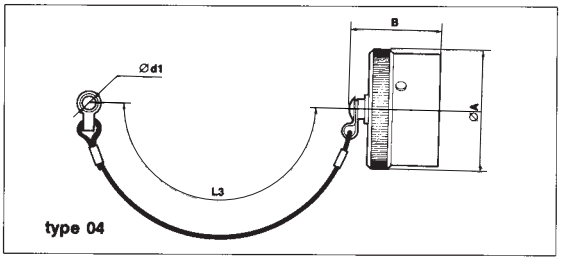
8LT Connectors

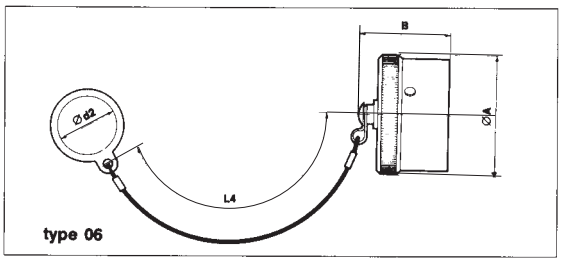
Accessories

Protective cap for receptacles

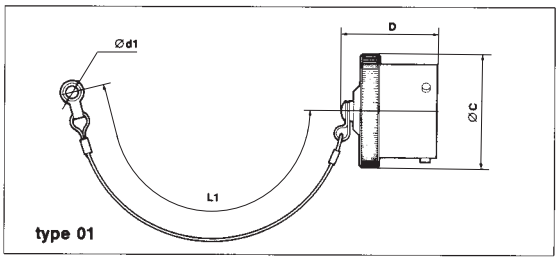


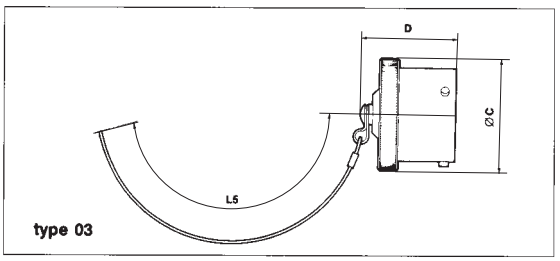


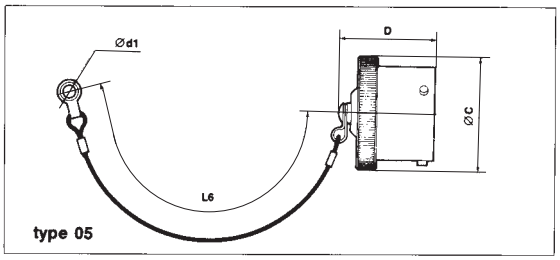


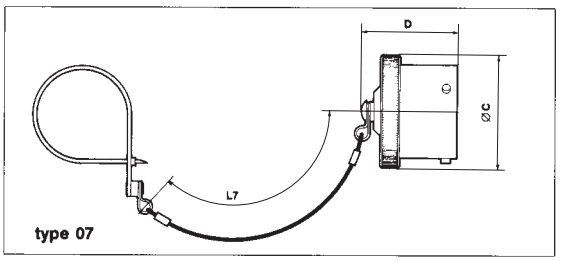


Protective cap for plugs









Shell size	A Max	B Max	C Max	D Max	d1 min	d2 min	L1	L2	L3 $^{\pm 5}$	L4 $^{\pm 5}$	L5 $^{\pm 5}$	L6 $^{\pm 5}$	L7 $^{\pm 5}$
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

Basic series	8LT	E	01	B	13

Cap type
- **E:** Cap for receptacle
- **F:** Cap for plug

Fixing type

Cap for receptacle
- **01:** Plastic sleeved metal card with eyelet
- **02:** Plastic sleeved metal card with ring
- **04:** Nylon cord with eyelet
- **06:** Nylon cord with ring
- **10:** Black nylon cord with eyelet

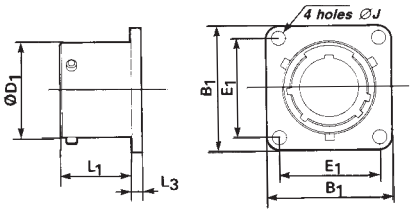
Cap for plug
- **01:** Plastic sleeved metal card with eyelet
- **03:** Nylon cord without fastener
- **05:** Nylon cord with eyelet
- **07:** Nylon cord with strap

Plating
- **B:** Olive green cadmium
- **F:** Nickel

Shell size: 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

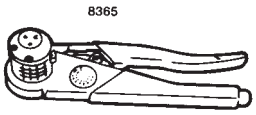
Shell size	Part numbers	
	Gasket for receptacle type 0, 2, 3 (to be ordered separately)	O ring for receptacle type 7 (shipped with connector)
09	8599-5541	AS3582-019
11	8599-5542	AS3582-022
13	8599-5543	AS3582-024
15	8599-5544	AS3582-026
17	8599-5545	AS3582-028
19	8599-5546	AS3582-128
21	8599-5547	AS3582-130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

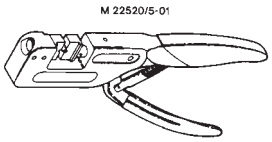
Tooling

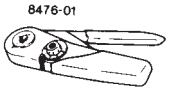
Crimping (#22D, #20, #16 and #12)

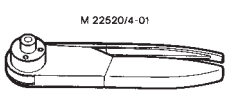
Contact size	Wire sizes		Type	Pliers						
				M22520/1-01 (Souriau 8365)		M22520/2-01 (Souriau 8476-01)		M300 BT Locator P / N	M21520/23-01	
				P / N turret		P / N locator			P / N turret	P / N locator
	mm²	AWG		Norm/Spec	Souriau	Norm/Spec	Souriau			
#22D	0.38 0.21 0.15 0.095	22 24 26 28	M	-	-	M22520/2-09	8476-09	-	-	-
			F	-	-	M22520/2-07	8476-07	-	-	-
#20	0.60 0.38 0.21	20 22 24	M	M22520/1-04	8365-04	M22520/2-10	8476-10	-	-	-
			F	M22520/1-04	8365-04	M22520/2-10	8476-10	-	-	-
#16	1.34 0.93 0.60	16 18 20	M	M22520/1-04	8365-04	-	-	-	-	-
			F	M22520/1-04	8365-04	-	-	-	-	-
#12	3.18 1.91	12 14	M	M22520/1-04	8365-04	-	-	-	-	-
			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

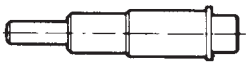
Contat type	Pliers	Locators
Middle contact	M22520/5-01	Y 631 closure B
Inner contact	M22520/2-01	K 709
Ferrule	M22520/5-01	Y 631 closure A

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

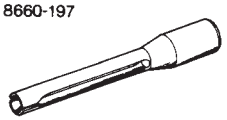
Direction of introduction
in grommet

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



Backshells

Basic type										8 LST	103	B	01	-

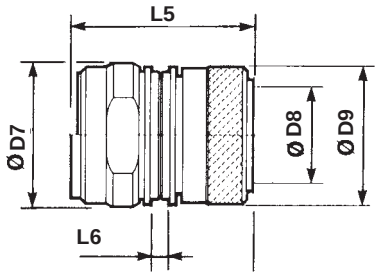
Shell size	09	11	13	15	17	19	21	23	25
Index number	101	102	103	104	105	106	107	108	109

Plating
F: Nickel
B: Olive green cadmium (MIL C 38999)

Backshell type
01: Backnut
02: Straight cable clamp
03: Elbow cable clamp
07: Backshell for screen termination and heatshrink sleeving

Suffix
1: For backshell type 07 only - For receptacle type 0 (shells 09 to 25) and for plug type 5 (shells 09 to 23)
None: For all other backshells

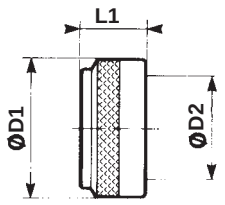
backshell for screen termination and heatshrink sleeving type 07



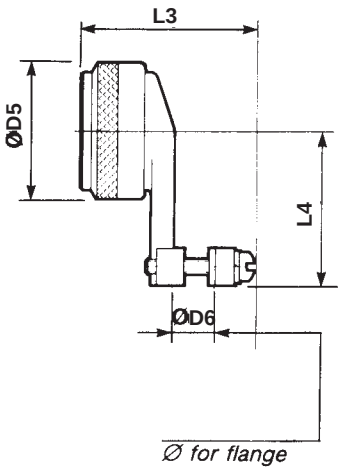
Shell size		09	11	13	15	17	19	21	23	25
D7 Max		20.20	23.20	26.20	29.20	32.20	35.20	39.20	42.20	45.20
D8	Min	6.90	9.60	12.70	14.80	17.90	19.90	23.10	26.20	28.80
	Max	7.00	9.70	12.80	14.90	18.00	20.00	23.20	26.30	28.90
D9 Max		16.00	18.90	22.10	25.30	28.50	31.50	34.70	37.90	41.00
L5 for receptacle type 0 - 3 - 1	T1	27.80	27.80	27.80	29.80	29.80	30.80	34.60	34.60	34.60
L5 Max for plug type 5	T1	27.80	27.80	27.80	29.80	29.80	30.80	34.60	34.60	-
L6 Max		3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40

8LT Connectors

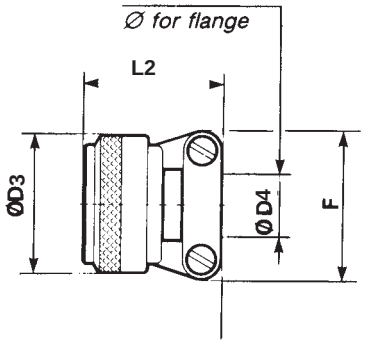
backnut type 01



elbow cable clamp type 03



straight cable clamp type 02



Shell size		09	11	13	15	17	19	21	23	25
D1 Max		15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
D2 Max		6.96	10.46	13.36	16.53	19.71	22.40	25.56	28.75	31.93
L1 Max		11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30
D3 Max		15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
D4	Min	1.40	1.40	2.40	5.60	5.60	8.80	11.90	15.10	15.10
	Max	3.20	4.80	6.40	9.50	12.70	15.90	19.10	22.20	25.40
F Max		21.03	22.63	25.81	28.98	30.56	37.31	37.31	42.06	44.45
L2 Max		22.22	22.22	22.22	28.57	28.57	28.57	28.57	31.75	31.75
L5 Max		47.22	48.02	49.52	55.92	59.42	59.42	59.42	59.42	59.42
D5 Max		15.67	18.64	21.79	24.99	28.24	30.94	34.16	37.29	40.46
D 6	Max	3.20	4.00	4.80	5.50	6.40	7.90	9.50	10.30	14.30
	Min	6.40	9.50	11.10	14.30	15.90	19.10	22.20	23.80	25.40
L3	Max	35.32	35.32	37.30	41.67	46.04	46.45	48.43	51.98	54.78
L4	Max	25.40	26.19	27.79	30.96	32.54	34.14	34.93	36.53	43.66