



Branche Connecteurs Offshore



9316 series

- Underwater applications
- Explosion proof
- Hermetically sealed

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■ General points

The DEUTSCH 9316 series has been designed to withstand the most severe environments in marine and off-shore applications down to 1500 or 7500 metres underwater.

A special care was taken concerning :

- Easy handling,
- Mechanical stress,
- Use in polluted environments.
- Use in hazardous areas.

We have particularly studied the mechanical strength, the elastomers selection and the suitability of the accessories for the most commonly used cables.

This series benefits from advanced technologies in glass to metal sealing and resistance to high pressures.

The 9316 series cover most requirements for on board or underwater use :

- Signal, control
- High frequency,
- Medium and high power.

To guarantee the quality of these products, DEUTSCH is equipped with conventional and special testing facilities dedicated to :

- Mechanical resistance,
- Ageing,
- Helium test,
- High pressure test.

Also, a specialized team is at customers disposal to study and achieve the wiring and testing of the 9316 connectors in our facilities or on site.

■ Application

The 9316 connectors have been designed for signal or power links down to 7500 meters and in explosive environments.

They are available in the following types :

- Hermetically sealed receptacles and feedthru's,
- Explosion-proof (as per EN 50014).
- Waterproof, 150 bars (2175 psi) - 9316 series, (hermetic receptacles only)
- Waterproof, 750 bars (10875 psi) - 9306 series, (Consult us)

■ Typical applications

- Underwater control systems,
- Wellheads
- Submarines,
- ROV,
- Platforms,
- Loading buoys,
- Mines.

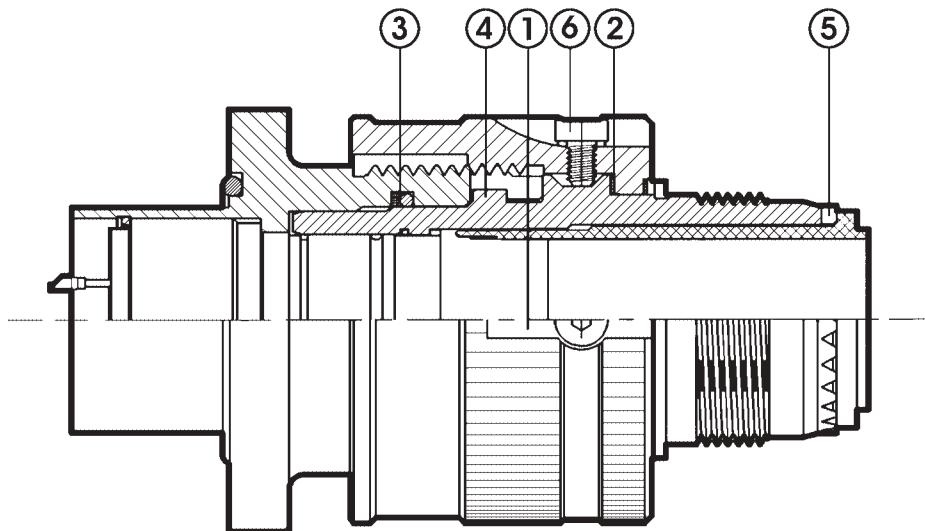
■ Design features

The shells are made of stainless steel. The coupling rings are made of marine bronze. In all cases, connectors in the 9316 series are scoop-proof ; a keying system is available in each size. The inserts include one part in thermo-setting plastic, and two parts in rubber silicone. Contacts are crimp type (except for hermetic connectors and some power arrangements). Hermetic receptacles and feedthru's are fitted with ferro-nickel contacts sealed into a glass disc. They are plated with gold over nickel. The hermetic connectors withstand the pressure given in both directions (safety factor : 2P). Sealing of all hermetic connectors is tested by heli-test.

■ Explosion-Proof connectors

The 9316 series (see shell types certified pages 4 and 5) meet the requirements of the relevant European standard EN 50014, EN 50018 and have received the following agreement :

L.C.I.E. certificate n° 98.E0009 U.
 Protection mode : Explosion-Proof envelope (EN 50018),
 Gas group : Groupe II B,
 Temperature class : T6 (layout 121-901, see note page 7).



- 1 Coupling ring to be tightened with a spanner,
- 2 Anti-friction washer allowing a constant coupling torque,
- 3 Plug/receptacle sealing granted by o'ring and anti-extrusion gasket,
- 4 Shell keying system,
- 5 Anti-rotation system with teeth at the rear of the plug, allowing a secure tightening and clamping of the accessories,
- 6 Rotation blocking screws after mating

■ Mechanical

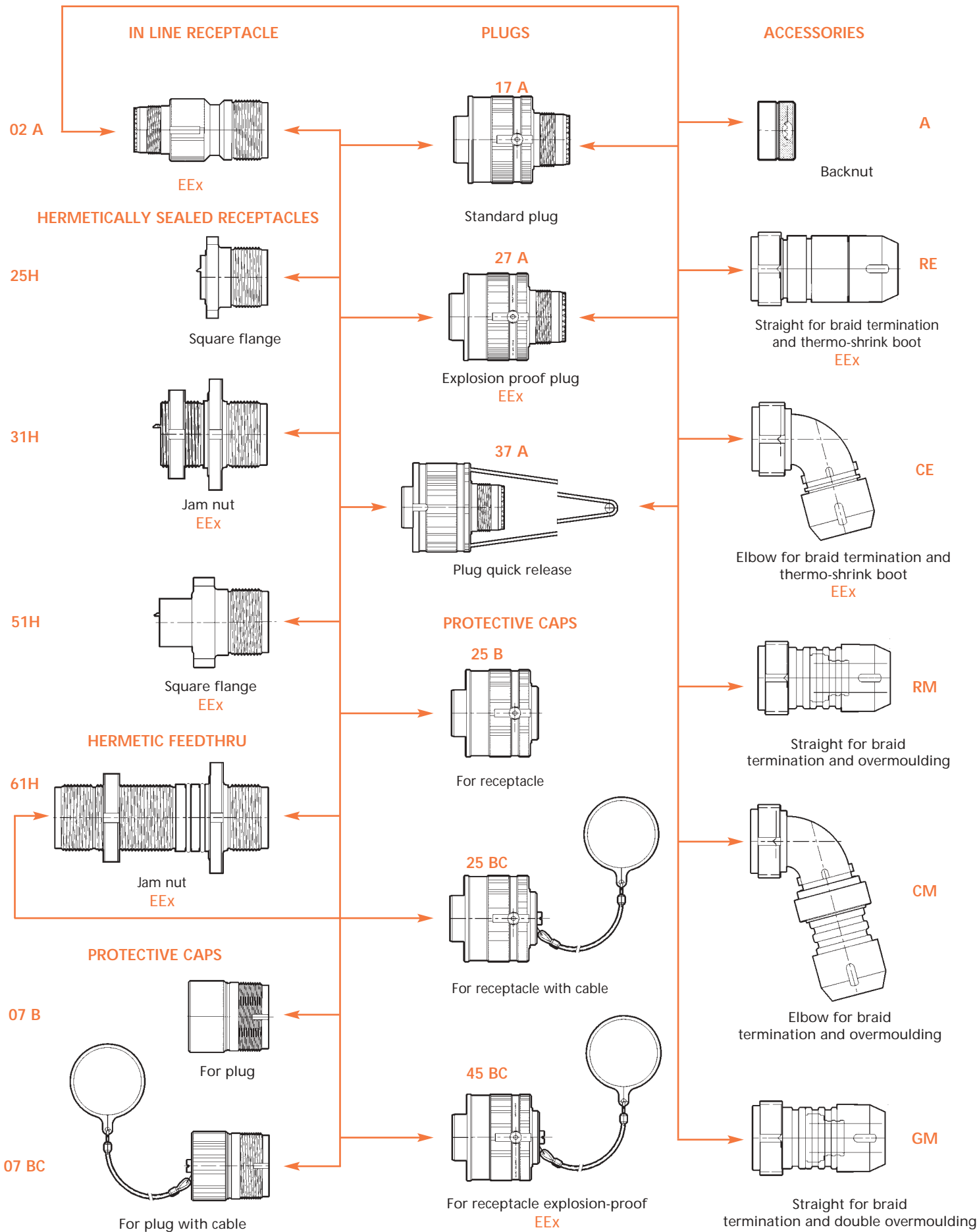
| | |
|-----------------------------------|---|
| Shell | : Stainless steel AISI 316 L passivated |
| Coupling ring | : Marine bronze UA9 NFE-C 321 |
| Insert (plug/in line receptacle) | : Thermo-setting resin, silicone elastomer These inserts meet requirements of MIL-H 5606 |
| Insert (hermetic receptacle) | : Glass |
| Contact (plug/in line receptacle) | : Crimp type # 20, 16, 12 and coax : rear insertion and front extraction Crimp type and solder type size 8 Crimp, solder or terminal type size 6, 4, 0, 150 mm ² , 300 mm ² |
| Contact (hermetic receptacle) | : Iron nickel (or copper, mode A810), solder or terminal (size 0, 150 mm ²) |
| Protection | : Gold over nickel |
| Endurance | : 500 mating and unmating cycles |
| Contact retention force | : After 10 insertion and extraction operations : Size 20 : 7 daN mini Size 16, 12, 8 : 11,2 daN mini |
| Hermeticity | : Individual heli-test ; leakage inferior to 0,28 mm ³ /hour at 1 bar differential pressure |

■ Climatics

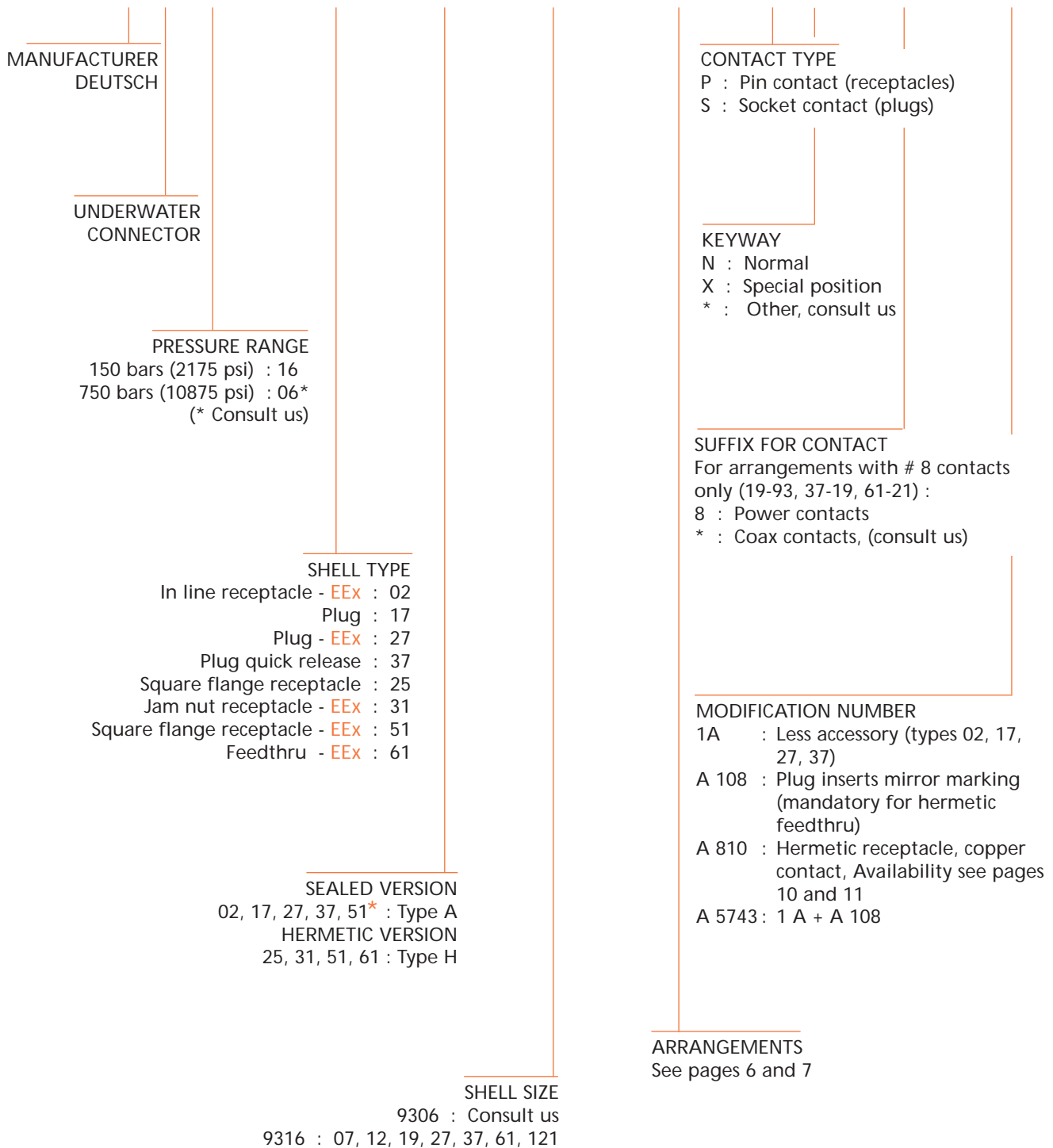
| | |
|---------------------|---|
| Working temperature | : Standard connectors : -55° C to + 125° C Explosion proof connectors : -20°C to +100°C (connector warming considered) Explosion proof connectors HT : -20°C to +190°C (connector warming considered) |
|---------------------|---|

■ Electrical

| | |
|------------------------------------|---|
| Dielectric withstanding voltage | |
| At sea level | : Service 1 : 1500 V A.C. Service 2 : 2300 V A.C. Power : see page 7 |
| Insulation resistance | : Superior to 5000 MΩ at 25° C and 65 % relative humidity |
| Maximum current rating per contact | : Size 20 : 5 A. max. Size 4 : 60/100 A. max. Size 16 : 10 A. max. Size 0 : 120/200 A. max. Size 12 : 17 A. max. 150 mm ² : 400 A. max. Size 8 : 33 A. max. 300 mm ² : 600 A. max. |

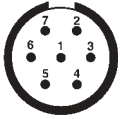


9316 - 27 A 19 - 12 PN * ***

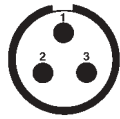


* : Arrangements 121-901 and 121-905

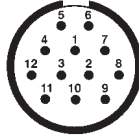
Male insert receptacle front view or female insert plug, wiring side view.



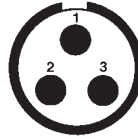
Arrangement 07-0
7 contacts size 20
Service 1



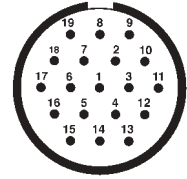
Arrangement 07-93
3 contacts size 16
Service 2



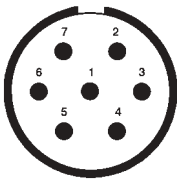
Arrangement 12-0
12 contacts size 20
Service 1



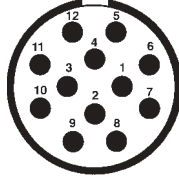
Arrangement 12-93
3 contacts size 12
Service 2



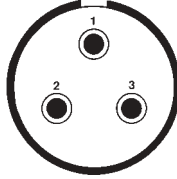
Arrangement 19-0
19 contacts size 20
Service 1



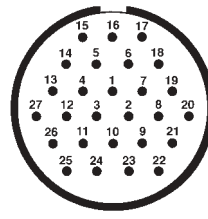
Arrangement 19-7
7 contacts size 12
Service 2



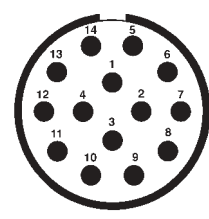
Arrangement 19-12
12 contacts size 16
Service 1



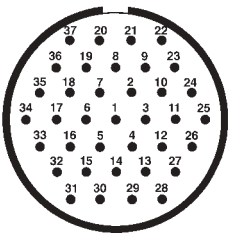
Arrangement 19-93
3 contacts size 8 or coax
Service 2



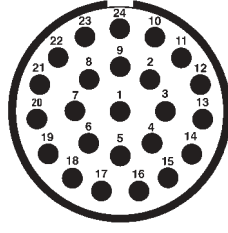
Arrangement 27-0
27 contacts size 20
Service 1



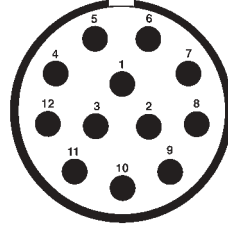
Arrangement 27-2
14 contacts size 16
Service 2



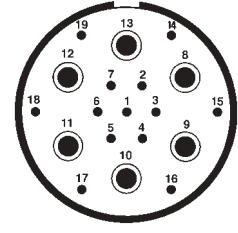
Arrangement 37-0
37 contacts size 20
Service 1



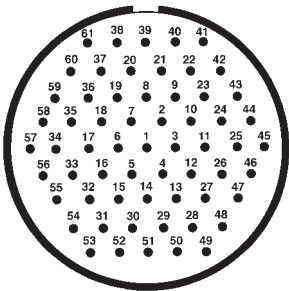
Arrangement 37-2
24 contacts size 16
Service 1



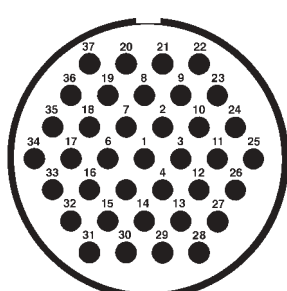
Arrangement 37-3
12 contacts size 12
Service 1



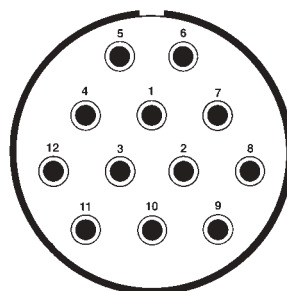
Arrangement 37-19
13 contacts size 20
6 contacts size 8 or coax
Service 1



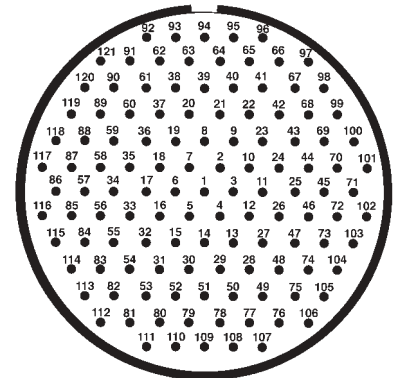
Arrangement 61-0
61 contacts size 20
Service 1



Arrangement 61-14
37 contacts size 16
Service 1



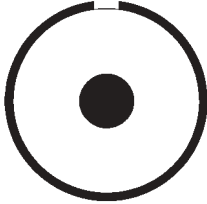
Arrangement 61-21
12 contacts size 8 or coax
service 1



Arrangement 121-0
121 contacts size 20
Service 1

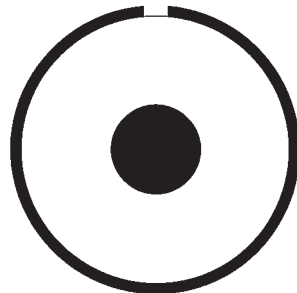
Service 1 : Service voltage 250 VAC
Service 2 : Service voltage 650 VAC

Male insert viewed from front face or female insert, wiring side view.



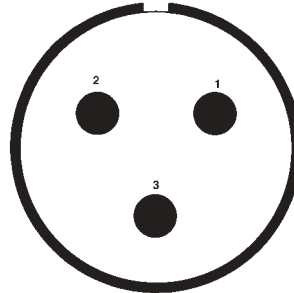
Arrangement 27-901 ▲
1 contacts size 0

| Version | Rating | Service | |
|--------------------|-----------|----------|-------|
| A Sealed | 3500 VRMS | 1250 VAC | 200 A |
| H Hermetic | 3500 VRMS | 1250 VAC | 120 A |
| H... A810 Hermetic | 2500 VRMS | 750 VAC | 200 A |



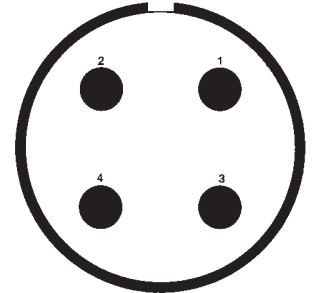
Arrangement 61-901 ●
1 x 150 mm²

| Version | Rating | Service | |
|--------------------|---------------|----------|-------|
| A Sealed | 5000 VRMS | 2000 VAC | 400 A |
| H Hermetic | Not available | | |
| H... A810 Hermetic | 5000 VRMS | 2000 VAC | 400 A |



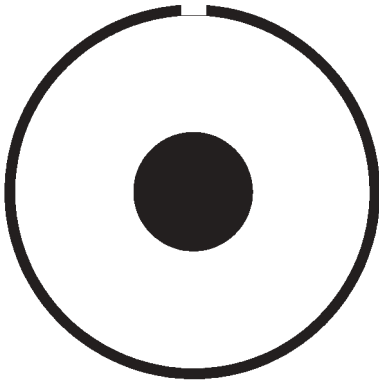
Arrangement 61-903 ▲
3 contacts size 4

| Version | Rating | Service | |
|--------------------|-----------|----------|-------|
| A Sealed | 3500 VRMS | 1250 VAC | 100 A |
| H Hermetic | 3500 VRMS | 1250 VAC | 60 A |
| H... A810 Hermetic | 2500 VRMS | 750 VAC | 100 A |



Arrangement 61-904
4 contacts size 4

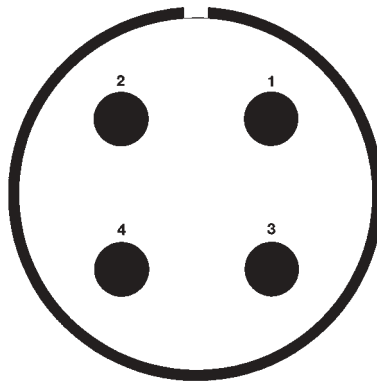
| Version | Rating | Service | |
|--------------------|---------------|----------|-------|
| A Sealed | 3500 VRMS | 1250 VAC | 100 A |
| H Hermetic | 3500 VRMS | 1250 VAC | 60 A |
| H... A810 Hermetic | Not available | | |



Arrangement 121-901 *
1 x 300m2

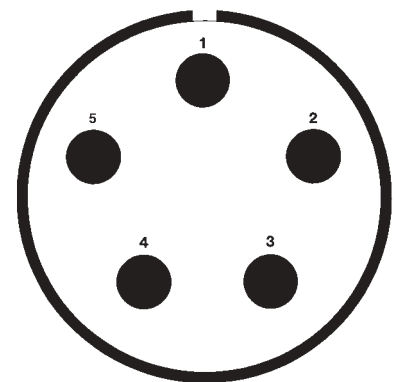
| Version | Rating | Service | |
|--------------------|---------------|----------|-------|
| A Sealed | 5000 VRMS | 2000 VAC | 600 A |
| H Hermetic | Not available | | |
| H... A810 Hermetic | Not available | | |

EExd T5 for current ≤ 600 A



Arrangement 121-904 ▲
4 contacts size 0

| Version | Rating | Service | |
|--------------------|---------------|----------|-------|
| A Sealed | 3500 VRMS | 1250 VAC | 200 A |
| H Hermetic | Not available | | |
| H... A810 Hermetic | 2500 VRMS | 750 VAC | 200 A |



Arrangement 121-905 *
5 contacts size 4

| Version | Rating | Service | |
|--------------------|---------------|----------|-------|
| A Sealed | 3000 VRMS | 1000 VAC | 100 A |
| H Hermetic | Not available | | |
| H... A810 Hermetic | Not available | | |

* Hermetic receptacles not available

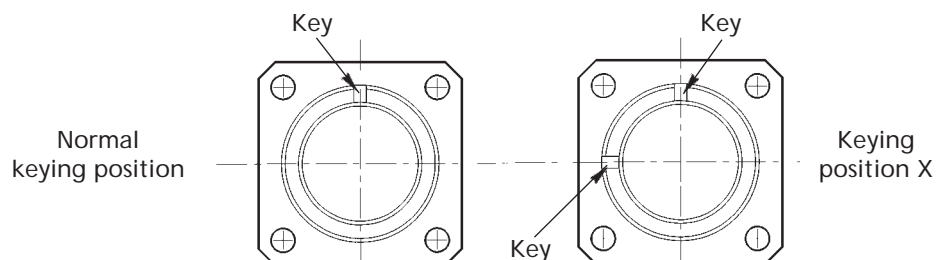
● Modification A 810 (Hermetic, copper contact) only available

▲ Modification A 810 (Hermetic, copper contact), available.

Nota : Voltage rating is test voltage. Other arrangements, consult us.

Mechanical keyway

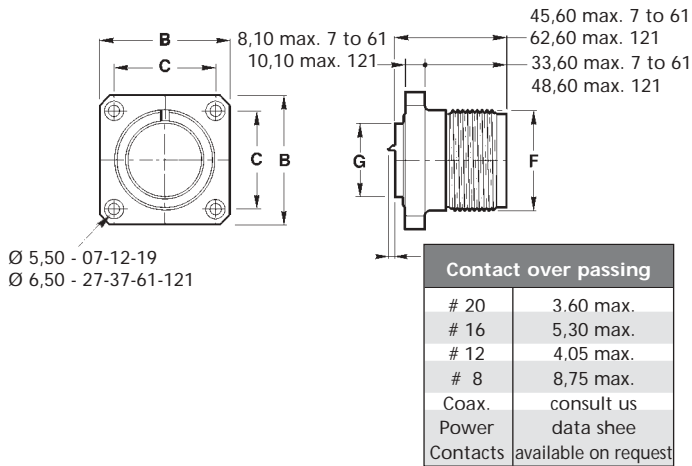
Receptacle front view



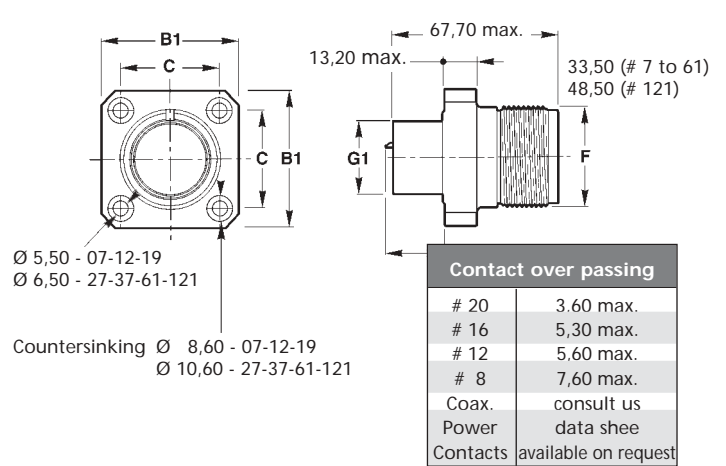
U - V - W - Y - Z : Available for some other shell sizes, please consult us..

■ Square flange - TYPES 25H - 51H

TYPE 25H



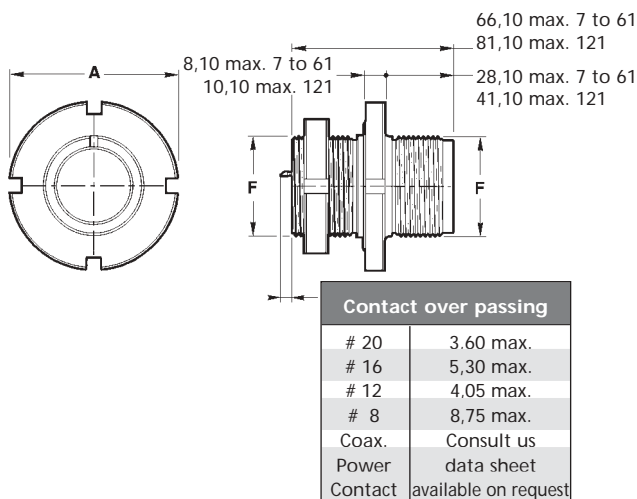
TYPE 51H



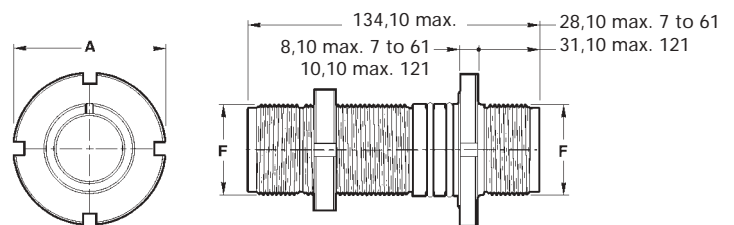
| Reference | B max. | B1 MAX. | C | F | G max. | G 1 | Reference |
|--------------------|-----------|------------|-------|----|-----------|-------|--------------------|
| 9316-25H 07-**-P* | 38,50 | 41,50 | 29,00 | 29 | 20,00 | 20,00 | 9316-51H 07-**-P* |
| 9316-25H 12-**-P* | 39,50 | 42,50 | 30,00 | 31 | 23,00 | 23,00 | 9316-51H 12-**-P* |
| 9316-25H 19-**-P* | 41,50 | 44,50 | 32,00 | 34 | 26,00 | 26,00 | 9316-51H 19-**-P* |
| 9316-25H 27-**-P* | 53,50 | 56,50 | 40,00 | 41 | 30,00 | 30,00 | 9316-51H 27-**-P* |
| 9316-25H 37-**-P* | 57,50 | 60,50 | 44,00 | 46 | 34,50 | 34,50 | 9316-51H 37-**-P* |
| 9316-25H 61-**-P* | 62,50 | 65,50 | 49,00 | 53 | 43,50 | 43,50 | 9316-51H 61-**-P* |
| 9316-25H 121-**-P* | 73,50 | 73,50 | 60,00 | 67 | 55,00 | 55,00 | 9316-51H 121-**-P* |

■ Jam nut - TYPES 31H - 61H

TYPE 31H

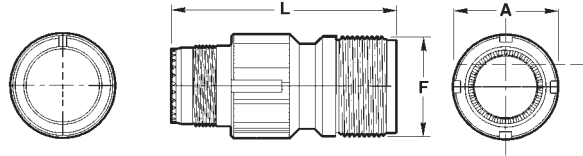


TYPE 61H



| Reference | A max. | F | Reference |
|--------------------|-----------|----|---------------------|
| 9316-31H 07-**-P* | 51,00 | 29 | 9316-61H 07-**-PP* |
| 9316-31H 12-**-P* | 52,00 | 31 | 9316-61H 12-**-PP* |
| 9316-31H 19-**-P* | 55,00 | 34 | 9316-61H 19-**-PP* |
| 9316-31H 27-**-P* | 69,00 | 41 | 9316-61H 27-**-PP* |
| 9316-31H 37-**-P* | 74,00 | 46 | 9316-61H 37-**-PP* |
| 9316-31H 61-**-P* | 80,00 | 53 | 9316-61H 61-**-PP* |
| 9316-31H 121-**-P* | 95,00 | 67 | 9316-61H 121-**-PP* |

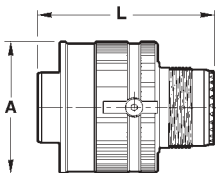
■ In line receptacle -TYPE 02A



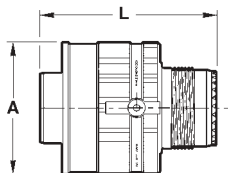
| Reference | A | L | F |
|------------------------|-------|--------|----|
| | max. | max. | |
| 9316-02 A 07-** P* 1A | 31,20 | 92,50 | 29 |
| 9316-02 A 12-** P* 1A | 33,20 | 92,50 | 31 |
| 9316-02 A 19-** P* 1A | 36,20 | 92,50 | 34 |
| 9316-02 A 27-** P* 1A | 43,20 | 92,50 | 41 |
| 9316-02 A 37-** P* 1A | 48,20 | 92,50 | 46 |
| 9316-02 A 61-** P* 1A | 55,20 | 92,50 | 53 |
| 9316-02 A 121-** P* 1A | 69,20 | 122,50 | 67 |

■ Plugs - TYPES 17A - 27A - 37A

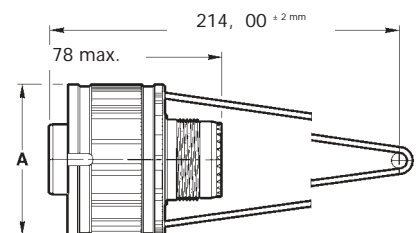
STANDARD
17A



EXPLOSION-PROOF
27A



QUICK RELEASE
37A



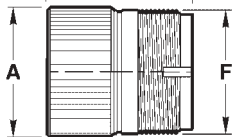
About 4 mm unlocking stroke
to release

| Reference | A | A1 | L |
|------------------------|-------|-------|-------|
| | max. | max. | max. |
| 9316 ** A 07-** S* 1A | 42,20 | 51,00 | 72,20 |
| 9316 ** A 12-** S* 1A | 44,20 | 53,00 | 72,20 |
| 9316 ** A 19-** S* 1A | 47,20 | 56,00 | 72,20 |
| 9316 ** A 27-** S* 1A | 54,20 | 63,00 | 72,20 |
| 9316 ** A 37-** S* 1A | 59,20 | 68,00 | 72,20 |
| 9316 ** A 61-** S* 1A | 66,20 | 75,00 | 72,20 |
| 9316 ** A 121-** S* 1A | 80,20 | 88,00 | 87,20 |

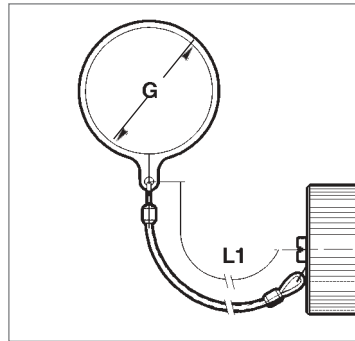
Cap for plug - TYPES 07 B - 07 BC

WITHOUT FASTENING CABLE
07 B

48,20 max. 7 to 61
63,20 max. 121



WITH FASTENING CABLE
07 BC

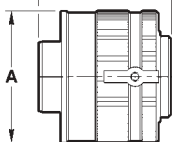


| Reference | A max. | F | G mini. | L1 max. | Reference |
|---------------|-----------|----|------------|------------|----------------|
| 9316-07 B 07 | 31,20 | 29 | 22,50 | 200 | 9316-07 BC 07 |
| 9316-07 B 12 | 33,20 | 31 | 25,50 | 200 | 9316-07 BC 12 |
| 9316-07 B 19 | 36,20 | 34 | 28,90 | 200 | 9316-07 BC 19 |
| 9316-07 B 27 | 43,20 | 41 | 33,70 | 200 | 9316-07 BC 27 |
| 9316-07 B 37 | 48,20 | 46 | 36,80 | 200 | 9316-07 BC 37 |
| 9316-07 B 61 | 55,20 | 53 | 44,50 | 200 | 9316-07 BC 61 |
| 9316-07 B 121 | 69,20 | 67 | 58,10 | 200 | 9316-07 BC 121 |

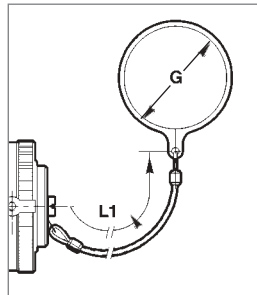
Cap for receptacle - TYPES 25 B - 25 BC

WITHOUT FASTENING CABLE
25 B

54,20 max. 7 to 61
69,10 max. 121



WITH FASTENING CABLE
25 BC

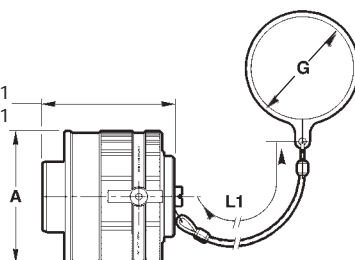


| Reference | A max. | G mini. | L1 max. | Reference |
|---------------|-----------|------------|------------|----------------|
| 9316-25 B 07 | 42,20 | 30,40 | 200 | 9316-25 BC 07 |
| 9316-25 B 12 | 44,20 | 32,00 | 200 | 9316-25 BC 12 |
| 9316-25 B 19 | 47,20 | 34,80 | 200 | 9316-25 BC 19 |
| 9316-25 B 27 | 54,20 | 41,60 | 200 | 9316-25 BC 27 |
| 9316-25 B 37 | 59,20 | 47,80 | 200 | 9316-25 BC 37 |
| 9316-25 B 61 | 66,20 | 55,40 | 200 | 9316-25 BC 61 |
| 9316-25 B 121 | 80,20 | 71,20 | 200 | 9316-25 BC 121 |

Explosion-proof cap for receptacle - TYPE 45 BC

WITH FASTENING CABLE

54,20 max. 7 to 61
69,10 max. 121



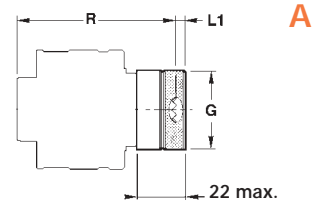
| Reference | A max. | G mini. | L1 max. |
|----------------|-----------|------------|------------|
| 9316-45 BC 07 | 42,20 | 30,40 | 200 |
| 9316-45 BC 12 | 44,20 | 32,00 | 200 |
| 9316-45 BC 19 | 47,20 | 34,80 | 200 |
| 9316-45 BC 27 | 54,20 | 41,60 | 200 |
| 9316-45 BC 37 | 59,20 | 47,80 | 200 |
| 9316-45 BC 61 | 66,20 | 55,40 | 200 |
| 9316-45 BC 121 | 80,20 | 71,20 | 200 |

Backnut

| Reference | G | L1 | R |
|-------------|-------|-------|-------|
| | max. | mini. | max. |
| 087-0004-07 | 24,50 | 4,80 | 72,20 |
| 087-0004-12 | 27,10 | 4,80 | 72,20 |
| 087-0004-19 | 30,80 | 4,80 | 72,20 |
| 087-0004-27 | 35,55 | 4,80 | 72,20 |
| 087-0004-37 | 38,70 | 4,80 | 72,20 |
| 087-0004-61 | 45,90 | 4,80 | 72,20 |
| 087-0004-95 | 56,90 | 4,80 | 87,20 |

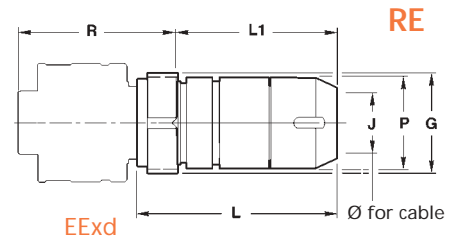
| Tightening torque. * mN |
|-------------------------|
| 20 |
| 22 |
| 25 |
| 28 |
| 32 |
| 37 |
| 45 |

* Valid for all types, all nuts



Straight for braid termination and thermo shrink boot

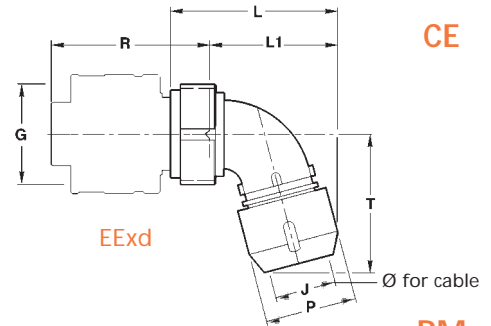
| Reference | G | J | L | L1 | P | R |
|-------------|-------|-------|--------|-------|-------|-------|
| | max. | mini. | max. | max. | max. | max. |
| 640-0336-07 | 34,90 | 16,45 | 88,70 | 70,95 | 30,45 | 72,20 |
| 640-0336-12 | 37,80 | 19,25 | 88,70 | 70,95 | 33,45 | 72,20 |
| 640-0336-19 | 42,60 | 22,25 | 88,70 | 70,95 | 36,95 | 72,20 |
| 640-0336-27 | 45,80 | 27,75 | 91,90 | 73,95 | 41,85 | 72,20 |
| 640-0336-37 | 53,80 | 31,05 | 91,90 | 73,95 | 45,15 | 72,20 |
| 640-0336-61 | 57,40 | 38,45 | 95,00 | 77,05 | 53,15 | 72,20 |
| 640-0336-95 | 69,70 | 45,30 | 115,00 | 96,15 | 60,60 | 87,20 |



Elbow for braid termination and thermo shrink boot

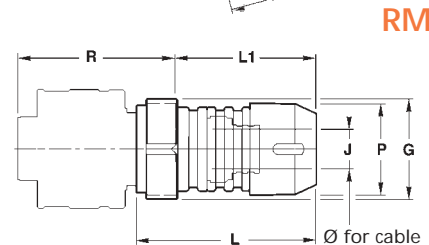
| Reference | G | J | L | L1 | P | R | T |
|-------------|-------|-------|-------|-------|-------|-------|-------|
| | max. | mini. | max. | max. | max. | max. | max. |
| 640-0334-07 | 34,90 | 15,75 | 63,50 | 45,75 | 28,40 | 72,20 | 61,15 |
| 640-0334-12 | 37,80 | 18,55 | 66,20 | 48,45 | 31,20 | 72,20 | 62,20 |
| 640-0334-19 | 42,60 | 22,35 | 69,80 | 52,05 | 34,30 | 72,20 | 65,35 |
| 640-0334-27 | 45,80 | 24,90 | 74,80 | 57,05 | 38,30 | 72,20 | 67,55 |
| 640-0334-37 | 53,80 | 29,50 | 78,10 | 60,35 | 42,30 | 72,20 | 68,00 |
| 640-0334-61 | 57,40 | 37,40 | 85,35 | 67,60 | 49,40 | 72,20 | 72,10 |
| 640-0334-95 | * | * | * | * | * | * | * |

* Consult us



Straight for braid termination and overmoulding

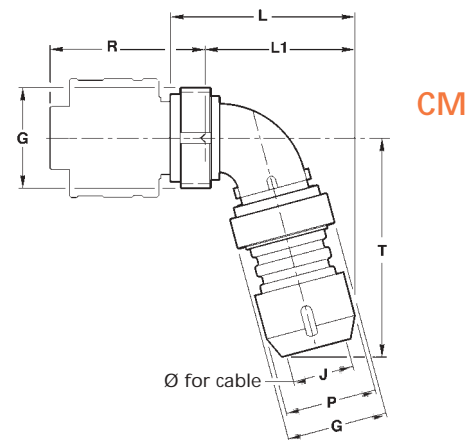
| Reference | G | J | L | L1 | P | R |
|-------------|-------|-------|-------|-------|-------|-------|
| | max. | mini. | max. | max. | max. | max. |
| 640-0337-07 | 34,90 | 16,45 | 72,00 | 54,25 | 30,30 | 72,20 |
| 640-0337-12 | 37,80 | 19,25 | 72,00 | 54,25 | 33,30 | 72,20 |
| 640-0337-19 | 42,60 | 22,25 | 72,00 | 54,25 | 36,30 | 72,20 |
| 640-0337-27 | 45,80 | 27,75 | 72,00 | 54,25 | 41,70 | 72,20 |
| 640-0337-37 | 53,80 | 31,05 | 72,00 | 54,25 | 45,00 | 72,20 |
| 640-0337-61 | 57,40 | 38,45 | 72,00 | 54,25 | 53,00 | 72,20 |
| 640-0337-95 | 69,70 | 45,30 | 86,00 | 67,00 | 60,60 | 87,20 |



Elbow for braid termination and overmoulding

| Reference | G | J | L | L1 | P | R | T |
|-------------|-------|-------|-------|-------|-------|-------|--------|
| | | mini. | max. | max. | max. | max. | max. |
| 640-0335-07 | 34,90 | 16,45 | 73,45 | 56,00 | 30,30 | 72,20 | 96,50 |
| 640-0335-12 | 37,80 | 19,25 | 76,40 | 58,95 | 33,30 | 72,20 | 98,05 |
| 640-0335-19 | 42,60 | 22,25 | 79,80 | 62,35 | 36,80 | 72,20 | 99,80 |
| 640-0335-27 | 45,80 | 27,75 | 85,45 | 67,80 | 41,70 | 72,20 | 102,95 |
| 640-0335-37 | 53,80 | 31,05 | 88,65 | 71,00 | 45,00 | 72,20 | 106,60 |
| 640-0335-61 | 57,40 | 38,45 | 96,35 | 78,70 | 53,00 | 72,20 | 108,60 |
| 640-0335-95 | * | * | * | * | * | * | * |

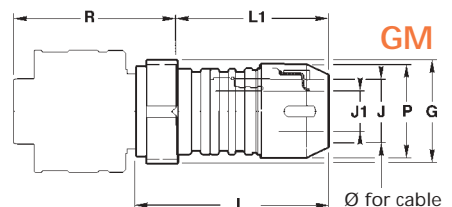
* Consult us



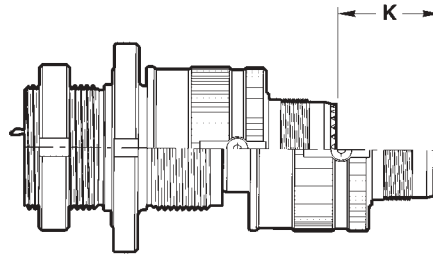
Straight for braid termination and double overmoulding

| Reference | G | J | J1 | L | L1 | P | R |
|-------------|-------|-------|-------|-------|-------|-------|-------|
| | max. | mini. | max. | max. | max. | max. | max. |
| 640-0180-07 | 34,90 | 16,45 | 10,80 | 85,20 | 67,25 | 30,30 | 72,20 |
| 640-0180-12 | 37,80 | 19,25 | 12,80 | 85,20 | 67,25 | 33,30 | 72,20 |
| 640-0180-19 | 42,60 | 22,25 | 14,80 | 85,20 | 67,25 | 36,80 | 72,20 |
| 640-0180-27 | 45,80 | 27,75 | 17,80 | 85,20 | 67,45 | 41,70 | 72,20 |
| 640-0180-37 | 53,80 | 31,05 | 19,80 | 85,20 | 67,45 | 45,00 | 72,20 |
| 640-0180-61 | 57,40 | 38,45 | 22,80 | 85,20 | 67,45 | 53,00 | 72,20 |
| 640-0180-95 | * | * | * | * | * | * | * |

* Consult us



| Size | K max. |
|---------|-----------|
| 7 to 61 | 33,20 |
| 121 | 48,20 |



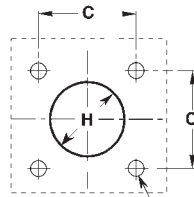
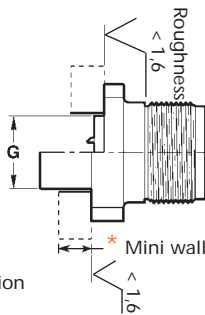
MATED

UNMATED

| Size | 07 | 12 | 19 | 27 | 37 | 61 | 121 |
|----------------------|----|----|----|----|----|----|-----|
| Tightening torque mN | 50 | 55 | 60 | 60 | 70 | 80 | 110 |

■ Square flange receptacle - TYPES 25 - 51 H

IMPORTANT NOTE : The surface roughness on the equipments, should be 0.4 - 0.8 micron.
A bearing face of 1.6 micron max. is tolerated.



* for explosion-proof application

* Mini wall thickness 15

Ø M 5 Size 7 to 19
Ø M 6 Size 27 to 121

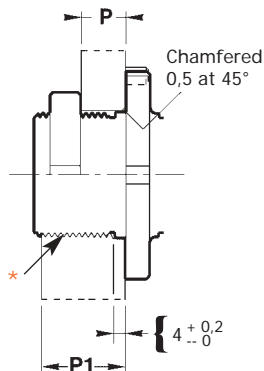
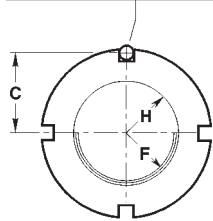
| Size | C ± 0,10 | G max. | H | |
|------|-------------|-----------|---------------------|-----------------------|
| | | | 25H + 0 - 0,2 | 51H + 0,075 - 0 |
| 07 | 29,00 | 20,00 | 20,40 | 20,00 |
| 12 | 30,00 | 23,00 | 23,40 | 23,00 |
| 19 | 32,00 | 26,00 | 26,40 | 26,00 |
| 27 | 40,00 | 30,00 | 30,40 | 30,00 |
| 37 | 44,00 | 34,50 | 34,90 | 34,50 |
| 61 | 49,00 | 43,50 | 43,90 | 43,50 |
| 121 | 60,00 | 55,00 | 55,40 | 55,00 |

■ Jam nut receptacle and feedthru - TYPES 31 H - 61 H

Type 31H

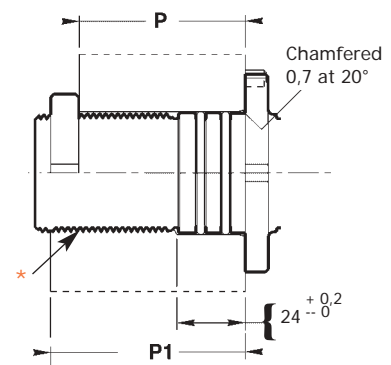
Type 61H

1 dia. Ø 4,8 stud shells 07 to 19
1 dia. Ø 5,8 stud shells 27 to 121



Assembly in smooth hole
(not EExd)

Assembly in tapped hole
(EExd)

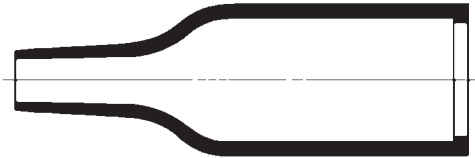


* EExd : ISO thread, F class, H6, 8 mm minimum.

| Shell | Assembly in smooth hole (Not EExd) | | Assembly in tapped hole |
|---------------|------------------------------------|---------|-------------------------|
| | P max. | P mini. | P1 max. |
| 9316-31 H | 20 | 5 | - |
| 9316-61 H ** | 60 | 25 | 70 |
| 9316-61 H 121 | 50 | 25 | 60 |

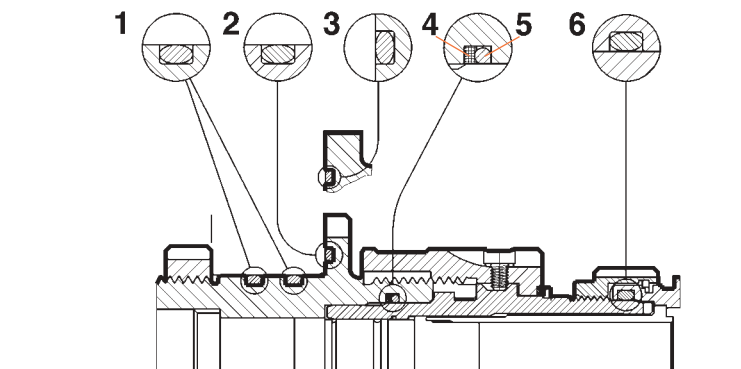
| Size | C ± 0,2 | F | Pitch *** | H | Tightening torque mN |
|------|------------|----|--------------|--------------|----------------------|
| | | | | + 0 - 0,2 | |
| 07 | 24,50 | 29 | 150 | 30,30 | 70 |
| 12 | 25,00 | 31 | 150 | 32,30 | 75 |
| 19 | 26,50 | 34 | 150 | 35,30 | 80 |
| 27 | 33,00 | 41 | 200 | 42,30 | 90 |
| 37 | 35,50 | 46 | 200 | 47,30 | 100 |
| 61 | 38,50 | 53 | 200 | 54,30 | 120 |
| 121 | 46,00 | 67 | 250 | 68,30 | 145 |

Thermo-shrink sleeve



| Size | Sleeve reference |
|------|------------------|
| 07 | 086-0104-06 |
| 12 | 086-0104-06 |
| 19 | 086-0104-06 |
| 27 | 086-0104-07 |
| 37 | 086-0104-07 |
| 61 | 086-0104-08 |
| 121 | 086-0104-08 |

Gaskets and counter - Gasket for shell and accessories




| Size | 1 O'ring for Type 61 H | 2 O'ring for Types 31-61 H | 3 O'ring for Type 25 H | 3 O'ring for Type 51 H | 4 Counter-gasket for receptacles | 5 O'ring for receptacles | 6 O'ring for accessory stainless |
|------|------------------------------|----------------------------------|------------------------------|------------------------------|--|--------------------------------|--|
| 07 | 103-0003-20-A817 | 103-0003-25-A817 | 103-0003-19-A817 | 103-0003-19-A817 | 103-0021-16 | 103-0003-16-A010 | 103-0003-17-A817 |
| 12 | 103-0003-21-A817 | 103-0003-26-A817 | 103-0003-20-A817 | 103-0003-20-A817 | 103-0021-17 | 103-0003-17-A010 | 103-0003-19-A817 |
| 19 | 103-0003-23-A817 | 103-0003-28-A817 | 103-0003-22-A817 | 103-0003-22-A817 | 103-0021-19 | 103-0003-19-A010 | 103-0003-21-A817 |
| 27 | 103-0003-28-A817 | 103-0003-34-A817 | 103-0003-25-A817 | 103-0003-25-A817 | 103-0021-23 | 103-0003-23-A010 | 103-0003-24-A817 |
| 37 | 103-0003-31-A817 | 103-0003-37-A817 | 103-0003-27-A817 | 103-0003-27-A817 | 103-0021-26 | 103-0003-26-A010 | 103-0003-26-A817 |
| 61 | 103-0003-35-A817 | 103-0003-41-A817 | 103-0003-33-A817 | 103-0003-33-A817 | 103-0021-30 | 103-0003-30-A010 | 103-0003-31-A817 |
| 121 | 103-0003-44-A817 | 103-0003-50-A817 | 103-0003-42-A817 | 103-0009-30-A817 | 103-0021-38 | 103-0003-38-A010 | 103-0003-38-A817 |

DEUTSCH recommends :

On hermetic or standard receptacles, lubrication of the coupling O'rings (inside the receptacles) after about 50 mating/unmating operations. We recommend silicon grease.

CONTACTS

CABLE



The diagrams show two views of a contact: a side view and a front view. To the right, a cable is shown with a stripping length of 4 to 5 mm indicated by arrows.

| # contacts | Index | Reference | Type | Crimp barrel Ø mini. | AWG wire | Section mm ² | Ø sheath |
|------------|---------|----------------------------|--------|-------------------------|----------|-------------------------|--------------|
| 20 | without | 047-0894-20 047-0893-20 | P S | 1,30 | 18 to 24 | 0,22 to 0,93 | 1,52 to 2,54 |
| | * | 047-1022-20 047-1023-20 | P S | 0,49 | 26 to 30 | 0,055 to 0,15 | |
| | * | 047-1024-20 047-1025-20 | P S | 2,50 | 16 to 18 | 0,93 to 1,34 | |
| 16 | without | 047-0894-16 047-0893-16 | P S | 1,68 | 16 to 18 | 0,93 to 1,34 | 2,66 to 3,42 |
| | * | 047-1022-16 047-1023-16 | P S | 1,30 | 18 to 24 | 0,22 to 0,93 | |
| | * | 047-1024-16 047-1025-16 | P S | 2,17 | 12 to 14 | 1,91 to 3,18 | |
| 12 | without | 047-0894-12 047-0893-12 | P S | 2,52 | 12 to 14 | 1,91 to 3,18 | 3,80 to 4,95 |
| | * | 047-1022-12 047-1023-12 | P S | 1,30 | 18 to 24 | 0,22 to 0,93 | |
| | * | 047-1024-12 047-1025-12 | P S | 1,96 | 14 to 18 | 0,93 to 1,91 | |
| 8 | 8 | 047-0894-08 047-0893-08 | P S | 4,70 | 8 | 10 | 4,30 to 5,50 |
| | 87 | 047-1329-08 047-1330-08 | P S | 3,46 | 10 | 5,30 | |
| | 88 | 047-1325-08 047-1326-08 | P S | 4,52 | 8 | 8,98 | |

● Standard contacts supplied with the connector

* : Special contacts, to be ordered separately

■ Coaxial contacts and tooling

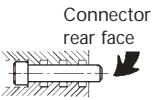
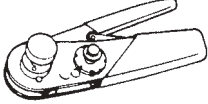

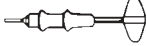
Please, consult us

FILLER PLUGS

CRIMPING TOOL

INSERTION TOOL

EXTRACTION TOOL

|  Connector rear face |  | |  Rear insertion tool |  Front insertion tool |
|--|---|-------------------|--|---|
| Reference | Reference | Reference Locator | Reference | Reference |
| 006-0893-20 | 057-0461-11 | 057-0503-21 | 057-0473-60 | 057-0479-60 |
| | 057-0463-12 | 057-0591-32 | | |
| | 057-0461-11 | 057-0503-21 | 057-0472-60 | |
| 092-1057-16 | 057-0461-11 | 057-0503-21 | 057-0472-60 057-0473-60 057-0471-60 | 057-0478-60 |
| 092-1056-12 | 057-0461-11 | 057-0503-21 | 057-0471-60 057-0473-60 057-0472-60 | 057-0477-60 |
| 047-1052-08 | Solder | | 057-0474-60 | 057-0480-60 |
| | 057-0585-11 | | | |

Other Products

- Linear downhole mateable connectors
- Linear power wet mateable connectors
- Signal wet mateable connectors
- Splash zone mateable connectors
- Customized connectors and services



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