

8533 Series



Applications

Engine area/sensors in harsh environments, railways (brake system), for all purposes in severe climatical environment and high temperature.

Standards

NFL 54143 - EN 2997



Description

- Screw coupling
- Interchangeable and intermateable with MIL-C 83723 Series III T type
- Plug with self locking system
- High temperature connector
- High level shock and vibration
- Thermocouple contacts available except hermetic connectors.

Characteristics

Mechanical

- Shell : aluminum alloy (class R-W-A) stainless steel (class K, E, Y and YE)
- Plating : nickel (class R)
 - olive green cadmium (class W)
 - black anodized (class A)
 - passivated (class K, E, Y and YE)
- Insulator : thermoset
- Grommet and seal : silicone elastomer
- Contact : copper alloy ferrous alloy (class Y and YE)
- Plating : gold over nickel
- Mechanical endurance :
 - 250 operations (class R and W)
 - 500 operations (class K, E, Y and YE)
- Shock : 300 g during 3 ms
- Vibration : random 5 Hz to 2000 Hz - 1 G²/Hz (2x8 hours)
- Contact retention :
 - size 20 : 90 N
 - size 16 : 111 N
 - size 12 : 133 N

Electrical

- Dielectric withstanding

| Altitude | Service |
|-----------|-----------|
| At ground | 1500 Vrms |
| 15 000 m | 600 Vrms |
| 21 000 m | 400 Vrms |
| 33 000 m | 200 Vrms |

- Contact resistance : as per NFL 54143 and EN 2997
- Insulation resistance :
 - > 5000 MΩ at 500 Vdc
- Max current rating per contact :

| | | |
|-----------------|----------------|---------------------|
| size 20 : 7.5 A | size 20 : 5 A | } class Y and YE |
| size 16 : 13 A | size 16 : 10 A | |
| size 12 : 23 A | size 12 : 17 A | |
- Electrical continuity :
 - 5 mΩ with RFI shielded
 - 60 mΩ without RFI shielded
- Shielding : to 100 MHz at 1 GHz attenuation > 65 dB

Climatic

- Working temperature :
 - 65°C to 175°C (class W)
 - 65°C to 200°C (class R, A, K and Y)
 - 65°C to 260°C cyclic (class E and YE)
- Leakage : low pressure immersion - L54001 and interfacial sealing : pressure 2kPa
- Hermeticity : differential pressure of 1 bar (air helium) leakage is ≤ 0,36 mm³/hr
- Damp heat : as per NFL 54143 and EN 2997
 - 10 cycles of 24 hours
- Salt spray : 48 hours
 - (class R-K-E-Y and YE)
 - 500 hours (class W)
- Fire resistance : as per NFL 54143 and EN 2997 (class K and E)

Resistance to fluids

MIL-H 5606 - SKYDROL 500 B4 - LD4
JP5 - MIL-L 7870 A - MIL-L 23699
MIL-L 7808 - MIL-C 25769 - MIL-A 8243

Ordering information

Environmental connectors

| basic series | 8533 - 0 R S 14 - 15 P N • | | | | |
|-----------------|---|--|--|--|--|
| shell type | 0 - square flange receptacle 7 - jam nut receptacle 3 - plug with self locking and RFI shielding 4 - plug with self locking | | | | |
| class | W - 175°C (aluminum version with olive green cadmium plating) R - 200°C (aluminum version with nickel plating) A - 200°C (aluminum version with black anodized plating) K - 200°C (stainless steel version) E - 260°C (stainless steel version) | | | | |
| | S - with 360° teeth | | | | |
| shell size | - 08-10-12-14-16-18-20-22-24-26-28 | | | | |
| contact layouts | - see table p 135 | | | | |
| contact type | P - male S - female | | | | |
| polarization | - N-6-7-8-9-Y - see p 136 | | | | |
| specification | without specification - connector supplied with standard contacts 08 - connector supplied with large barrel contacts L - connector supplied without contacts | | | | |

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Backshells

aluminum version

| | | | | |
|-----------------------|---|-----------------|----------|-----------|
| basic series | | 852 - 31 | N | 14 |
| backshell type | 31 - backnut 52 - straight cable clamp 51 - elbow cable clamp | | | |
| plating | N - nickel A - black anodized W - olive green cadmium | | | |
| shell size | - 08-10-12-14-16-18-20-22-24 | | | |

Backshells

stainless steel version

| | | | | |
|-----------------------|--|------------------|-----------|----------|
| basic series | | 8527 - 01 | 14 | • |
| backshell type | 01 - backnut 02 - straight cable clamp | | | |
| shell size | - 08-10-12-14-16-18-20-22-24 | | | |
| specification | A - obligatory suffix for backshell type 02 only | | | |

NOTE : for others types and sizes backshells - See catalogue M 85049

Hermetic connectors

| | | | | | | |
|------------------------|--|-----------------|----------|----------------|----------|----------|
| basic series | | 8533 - 1 | Y | 10 - 05 | P | N |
| shell type | 1 - solder fixing receptacle 2 - square flange receptacle 7 - jam nut receptacle | | | | | |
| class | Y - 200° YE - 260° | | | | | |
| shell size | - 08-10-12-14-16-18-20*-22-24* | | | | | |
| contact layouts | see table p 135 | | | | | |
| contact type | P - male only | | | | | |
| polarization | see table p 136 | | | | | |

* Consult us

Protective caps

aluminum version

| | | | | |
|---------------------|---|-------------------|----------|-----------|
| basic series | | 83723 - 21 | R | 14 |
| cap type | 21 - cap for receptacle 22 - cap for plug | | | |
| plating | R - nickel W - olive green cadmium A - black anodized | | | |
| shell size | - 08-10-12-14-16-18-20-22 | | | |

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Cross reference list

| FCI Souriau | EN 2997 NFL 54143 (1) | AEROSPATIALE | ROLLS ROYCE | Description | | |
|--------------|--------------------------|---------------------|--------------|-------------------------------|-------------------------|----------------------|
| 852-31 •• | - | ASN-E0455-01 •• N | - | Aluminum version | Backnut | |
| 852-52N •• | - | ASN-E0455-02 •• N | - | | Straight cable clamp | |
| 852-51N •• | - | ASN-E0455-03 •• N | - | | Elbow cable clamp | |
| 8527-01 •• | - | ASN-E0199-01 •• K | - | Stainless steel version | Backnut | |
| 8527-02 •• A | - | ASN-E0199-02 •• K | - | | Straight cable clamp | |
| 8526-1348 | EN 3155-018 M 2020 | - | - | Contact | Male | Standard size 20 |
| 8526-1349 | EN 3155-018 M 1616 | NSA 938 151 PA 1600 | - | | | Standard size 16 |
| 8526-1350 | EN 3155-018 M 1212 | NSA 938 151 PA 1200 | - | | | Standard size 12 |
| 8522-2349A | EN 3155-018 M 2018 | NSA 938 151 PA 2000 | - | | | Large barrel size 20 |
| 8522-6179A | EN 3155-018 M 1614 | NSA 938 151 PA 1601 | - | | | Large barrel size 16 |
| 8526-4175 | EN 3155-018 M 1618 | NSA 938 151 PA 1602 | - | | | Small barrel size 16 |
| 8526-5041 | EN 3155-018 M 1218 | NSA 938 151 PA 1202 | - | | | Small barrel size 12 |
| 8526-1344 | EN 3155-019 F 2020 | - | - | | Female | Standard size 20 |
| 8526-1346 | EN 3155-019 F 1616 | NSA 938 152 SA 1600 | - | | | Standard size 16 |
| 8526-1347 | EN 3155-019 F 1212 | NSA 938 152 SA 1200 | - | | | Standard size 12 |
| 8520-292 | EN 3155-019 F 2018 | NSA 938 152 SA 2000 | - | | | Large barrel size 20 |
| 8522-6180A | EN 3155-019 F 1614 | NSA 938 152 SA 1601 | - | | | Large barrel size 16 |
| 8526-4176 | EN 3155-019 F 1618 | NSA 938 152 SA 1602 | - | | | Small barrel size 16 |
| 8526-5591 | EN 3155-019 F 1218 | NSA 938 152 SA 1202 | - | | | Small barrel size 12 |
| 8533-1000 | EN 3155-004 M 2020 | - | ESC30 P20 BC | Class 175° C and 200° C | Male | Standard size 20 |
| 8533-1004 | EN 3155-004 M 1616 | ASN-E 0445 FW 1600 | ESC30 P16 BC | | | Standard size 16 |
| 8533-1002 | EN 3155-004 M 2018 | ASN-E 0445 FW 2001 | - | | | Large barrel size 20 |
| 8533-1006 | EN 3155-004 M 1614 | ASN-E 0445 FW 1601 | - | | | Large barrel size 16 |
| 8533-1008 | EN 3155-004 M 1618 | ASN-E 0445 FW 1602 | - | | Small barrel size 16 | |
| 8533-1035 | EN 3155-004 M 1212 | ASN-E 0445 FW 1200 | ESC30 P12 BC | | Small barrel size 1 | |
| 8533-1019 | EN 3155-044 M 2022 | - | - | | Double crimping size 20 | |
| 8533-1001 | EN 3155-005 F 2020 | - | ESC30 S20 BC | | Class 260° C | Male |
| 8533-1005 | EN 3155-005 F 1616 | ASN-E 0446 DW 1600 | ESC30 S16 BC | Standard size 16 | | |
| 8533-1003 | EN 3155-005 F 2018 | ASN-E 0446 DW 2001 | - | Large barrel size 20 | | |
| 8533-1007 | EN 3155-005 F 1614 | ASN-E 0446 DW 1601 | - | Large barrel size 16 | | |
| 8533-1009 | EN 3155-005 F 1618 | ASN-E 0446 DW 1602 | - | Small barrel size 16 | | |
| 8533-1036 | EN 3155-005 F 1212 | ASN-E 0446 DW 1200 | ESC30 S12 BC | Standard size 12 | | |
| 8533-1018 | EN 3155-045 F 2022 | - | - | Double crimping size 20 | | |

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Cross reference list

| FCI Souriau | EN 2997 NFL 54143 (1) | AEROSPATIALE | BOEING BACC 63 CN/CM | BOEING BACC 63 BR/BT ⁽²⁾ | ROLLS ROYCE | Description |
|------------------------------------|--------------------------|-----------------------|-------------------------|--|------------------|--|
| 8533-0RS ●●● P □ 08 ⁽³⁾ | - | ASN-E0454RS ●●● P □ | - | - | - | Square flange receptacle |
| 8533-0WS ●●● P □ 08 ⁽³⁾ | - | - | - | - | - | |
| 8533-0RS ●●● P □ | EN2997-RS0 ●●● M □ | - | - | - | - | |
| 8533-0WS ●●● P □ | EN2997-WS0 ●●● M □ | - | - | - | - | |
| 8533-0RS ●●● P □ L | EN2997-RS0 ●●● A □ | ASN-E0454RS ●●● P □ A | - | - | - | |
| 8533-0WS ●●● P □ L | EN2997-WS0 ●●● A □ | - | - | - | - | |
| 8533-3RS ●●● P □ 08 ⁽³⁾ | - | ASN-E0452RS ●●● P □ | - | - | - | Plug with self locking and RFI shielded |
| 8533-3WS ●●● P □ 08 ⁽³⁾ | - | - | - | - | - | |
| 8533-3RS ●●● P □ | EN2997-RS6 ●●● M □ | - | - | - | - | |
| 8533-3WS ●●● P □ | EN2997-WS6 ●●● A □ | - | - | - | - | |
| 8533-3RS ●●● P □ L | EN2997-RS6 ●●● A □ | ASN-E0452RS ●●● P □ A | - | - | - | |
| 8533-3WS ●●● P □ L | EN2997-WS6 ●●● A □ | - | - | - | - | |
| 8533-4RS ●●● P □ 08 ⁽³⁾ | - | ASN-E0451R ●●● P □ | - | - | - | plug with self locking |
| 8533-4WS ●●● P □ 08 ⁽³⁾ | - | - | - | - | - | |
| 8533-4RS ●●● P □ | EN2997-R6 ●●● M □ | - | - | - | - | |
| 8533-4WS ●●● P □ | EN2997-W6 ●●● M □ | - | - | - | - | |
| 8533-4RS ●●● P □ L | EN2997-R6 ●●● A □ | ASN-E0451R ●●● P □ A | - | - | - | |
| 8533-4WS ●●● P □ L | EN2997-W6 ●●● A □ | - | - | - | - | |
| 8533-0KS ●●● P □ 08 ⁽³⁾ | - | - | - | - | - | square flange receptacle |
| 8533-0KS ●●● P □ | EN2997-S0 ●●● M □ | - | - | - | - | |
| 8533-0KS ●●● P □ L | EN2997-S0 ●●● A □ | - | - | - | - | |
| 8533-3KS ●●● P □ 08 ⁽³⁾ | - | - | - | - | - | plug with self locking and RFI shielded |
| 8533-3KS ●●● P □ | EN2997-S6 ●●● M □ | - | - | - | - | |
| 8533-3KS ●●● P □ L | EN2997-S6 ●●● A □ | - | - | - | - | |
| 8533-4KS ●●● P □ 08 ⁽³⁾ | - | - | - | - | - | plug with self locking |
| 8533-4KS ●●● P □ | EN2997-K6 ●●● M □ | - | - | - | - | |
| 8533-4KS ●●● P □ L | EN2997-K6 ●●● A □ | - | - | - | - | |
| 8533-1Y ●●● P □ | EN2997-Y1 ●●● M □ | - | - | - | - | solder fixing receptacle square flange hermetic receptacle jam nut hermetic receptacle |
| 8533-2Y ●●● P □ | EN2997-Y0 ●●● M □ | - | - | - | - | |
| 8533-7Y ●●● P □ | EN2997-Y7 ●●● M □ | - | - | - | - | |
| 8533-0ES ●●● P □ 08 ⁽³⁾ | - | ASN-E0444SE ●●● P □ | - | - | - | square flange receptacle |
| 8533-0ES ●●● P □ | EN2997-SE0 ●●● M □ | - | BACC63CN ●●● P □ A | BACC63BT ●●● P □ A | - | |
| 8533-0ES ●●● P □ L | EN2997-SE0 ●●● A □ | ASN-E0444SE ●●● P □ A | BACC63CN ●●● P □ | BACC63BT ●●● P □ | ESC10KE0 ●●● P □ | |
| 8533-3ES ●●● P □ 08 ⁽³⁾ | - | ASN-E0442SE ●●● P □ | - | - | - | plug with self locking and RFI shielded |
| 8533-3ES ●●● P □ | EN2997-SE6 ●●● M □ | - | BACC63CM ●●● P □ A | BACC63BR ●●● P □ A | - | |
| 8533-3ES ●●● P □ L | EN2997-SE6 ●●● A □ | ASN-E0442SE ●●● P □ A | BACC63CM ●●● P □ | BACC63BR ●●● P □ | ESC10SE6 ●●● P □ | |
| 8533-4ES ●●● P □ 08 ⁽³⁾ | - | ASN-E0441KE ●●● P □ | - | - | - | plug with self locking |
| 8533-4ES ●●● P □ | EN2997-KE6 ●●● M □ | - | - | - | - | |
| 8533-4ES ●●● P □ L | EN2997-KE6 ●●● A □ | ASN-E0441KE ●●● P □ A | - | - | ESC10KE6 ●●● P □ | |
| 8533-KE5 ●● | EN2997-KE5 ●● | - | - | - | - | dummy receptacle |
| 8533-1YE ●●● P □ | EN2997-YE1 ●●● M □ | - | - | - | ESC10YE1 ●●● P □ | solder fixing receptacle |
| 8533-2YE ●●● P □ | EN2997-YE0 ●●● M □ | - | - | - | ESC10YE2 ●●● P □ | square flange hermetic receptacle |
| 8533-7YE ●●● P □ | EN2997-YE7 ●●● M □ | - | - | - | - | jam nut hermetic receptacle |

(1) : Part numbers in specification NLF 54143. Replace EN 2997 by 3.

(2) : Superseded by BACC 63 CN/CM

(3) : 08 for #20 contacts layouts

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Contact layouts viewed from front face of male insulator

▲ class 200°C

■ class 260°C

● hermetic

| | | | |
|----|-----------------------------------|--|---------------------------------------|
| 08 | ▲ ■ ● 08-03 3#20 | ▲ ■ 08-98 3#20 | |
| 10 | ▲ ■ ● 10-05 5#20 | ▲ ■ ● 10-06 6#20 | |
| 12 | ▲ ■ ● 12-03 3#16 | ▲ ■ ● 12-12 12#20 | |
| 14 | ▲ ■ ● 14-04 4#12 | ▲ ■ ● 14-07 7#16 | ▲ ■ ● 14-15 15#20 |
| 16 | ▲ ■ 16-10 10#16 | ▲ ■ ● 16-24 24#20 | ▲ SN393 4 Coax 50 Ω 1#16 |
| 18 | ▲ ■ 18-14 14#16 | ▲ ■ ● 18-31 31#20 | ▲ ■ 18-08 8#12 |
| 20 | ▲ ■ 20-39 37#20 2#16 | ▲ ■ 20-41 41#20 | ▲ ■ 20-16 16#16 |
| 22 | ▲ ■ 22-12 12#12 | ▲ ■ 22-19 19#16 | ▲ ■ ● 22-55 55#20 |
| 24 | ▲ ■ 24-61 61#20 | ▲ ■ 24-30 30#16 | |
| 28 | ▲ ■ 28-42 42#16 | <p>Consult us - Special product.</p> <p>For other contacts layout please consult us.</p> | |

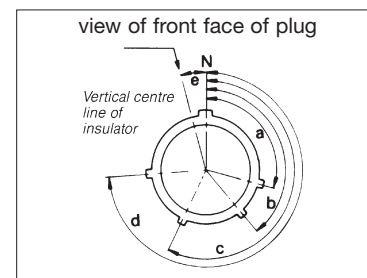
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Polarization

| alternative shell key and insert positions (MIL STD 1554) | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------|----------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-----|
| positions | | shell 08 | | | | shell 10 | | | | shell 12 | | | | shell 14 | | | | shell 16 | | | | shell 18 | | | |
| key | e° insert | a° | b° | c° | d° | a° | b° | c° | d° | a° | b° | c° | d° | a° | b° | c° | d° | a° | b° | c° | d° | a° | b° | c° | d° |
| N | 0 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 |
| 6 | 0 | 102 | 132 | 248 | 320 | 102 | 132 | 248 | 320 | 18 | 149 | 192 | 259 | 18 | 149 | 192 | 259 | 18 | 149 | 192 | 259 | 18 | 149 | 192 | 259 |
| 7 | 0 | 80 | 118 | 230 | 312 | 80 | 118 | 230 | 312 | 92 | 152 | 222 | 342 | 92 | 152 | 222 | 342 | 92 | 152 | 222 | 342 | 92 | 152 | 222 | 342 |
| 8 | 0 | 35 | 140 | 205 | 275 | 35 | 140 | 205 | 275 | 84 | 152 | 204 | 334 | 84 | 152 | 204 | 334 | 84 | 152 | 204 | 334 | 84 | 152 | 204 | 334 |
| 9 | 0 | — | — | — | — | — | — | — | — | 24 | 135 | 199 | 240 | 24 | 135 | 199 | 240 | 24 | 135 | 199 | 240 | — | — | — | — |
| Y | 0 | — | — | — | — | — | — | — | — | — | — | — | — | 98 | 152 | 268 | 338 | 98 | 152 | 268 | 338 | — | — | — | — |

| alternative shell key and insert positions (MIL STD 1554) | | | | | | | | | | | | | | | | | |
|---|-----------|----------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-----|
| positions | | shell 20 | | | | shell 22 | | | | shell 24 | | | | shell 28 | | | |
| key | e° insert | a° | b° | c° | d° | a° | b° | c° | d° | a° | b° | c° | d° | a° | b° | c° | d° |
| N | 0 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 |
| 6 | 0 | 18 | 149 | 192 | 259 | 18 | 149 | 192 | 259 | 18 | 149 | 192 | 259 | 18 | 149 | 192 | 259 |
| 7 | 0 | 92 | 152 | 222 | 342 | 92 | 152 | 222 | 342 | 92 | 152 | 222 | 342 | 92 | 152 | 222 | 342 |
| 8 | 0 | 84 | 152 | 204 | 334 | — | — | — | — | — | — | — | — | — | — | — | — |
| 9 | 0 | 24 | 135 | 199 | 240 | — | — | — | — | — | — | — | — | — | — | — | — |
| Y | 0 | 98 | 152 | 268 | 338 | — | — | — | — | — | — | — | — | — | — | — | — |



Crimp contacts

| contact size | type | part numbers | | code by colour bands | admissible wire section | | external ø over insulator | | |
|-----------------------|------|---------------------------------------|--------------------------------------|--------------------------------------|---|-------------------------|-------------------------------------|----------------------|----------------------|
| | | male contact | female contact | | AWG | mm ² | min. | Max. | |
| class 175°C and 200°C | 20 | standard large barrel | 8526-1348 8522-2349A | 8526-1344 8520-292 | red - red red - violet | 24-20 22-18 | 0.21-0.60 0.38-0.93 | 0.85 0.85 | 2.10 2.10 |
| | 16 | standard large barrel small barrel | 8526-1349 8522-6179A 8526-4175 | 8526-1346 8522-6180A 8526-4176 | blue - blue blue - orange blue - orange | 20-16 18-14 22-18 | 0.60-1.34 0.93-1.91 0.38-0.93 | 1.20 1.20 1.20 | 2.70 2.70 2.70 |
| | 12 | standard small barrel | 8526-1350 8526-5041 | 8526-1347 8526-5591 | yellow - yellow yellow - violet | 14-12 22-18 | 1.91-3.18 0.38-0.93 | 1.90 1.90 | 4.01 4.01 |
| class 260°C | 20 | standard small barrel | 8533-1000 8533-1002 | 8533-1001 8533-1003 | red - red + 1 white dot red - violet + 1 white dot | 24-20 22-18 | 0.25-0.60 0.38-0.93 | 0.85 0.85 | 2.10 2.10 |
| | 20 | double crimping | 8533-1019 | 8533-1018 | red - green + 1 white dot | 22 | 0.4 | - | 1.25 |
| | 16 | standard large barrel small barrel | 8533-1004 8533-1006 8533-1008 | 8533-1005 8533-1007 8533-1009 | blue - blue + 1 white dot blue - orange + 1 white dot blue - violet + 1 white dot | 20-16 18-14 22-18 | 0.60-1.34 0.93-1.91 0.38-0.93 | 1.20 1.20 1.20 | 2.70 2.70 2.70 |
| | 12 | standard | 8533-1035 | 8533-1036 | yellow - yellow + 1 white dot | 14-12 | 1.91-3.18 | 1.90 | 4.01 |

Thermocouple contacts

| contact size | type C : chromel A : alumel | male contact | | female contact | | admissible wire section | | external ø over insulator | | | | | | | |
|-----------------------|-----------------------------------|--------------|----------------------|----------------|----------------------|-------------------------|------------------|---------------------------|-----------|------|------|-------|-----------|------|------|
| | | part numbers | code by colour bands | part numbers | code by colour bands | AWG | mm ² | min. | Max. | | | | | | |
| class 175°C and 200°C | 20 | standard | C | 8522-875A | brown-orange-green | 8522-877A | brown-yel.-brown | 24-20 | 0.21-0.60 | 0.85 | 2.10 | | | | |
| | | | A | 8522-876A | brown-orange-yel. | 8522-878A | brown-yel.-black | | | | | | | | |
| | | large barrel | C | 8522-3761 | yellow 2 dots | 8522-3770 | yellow 2 dots | | | | | 22-18 | 0.38-0.93 | 0.85 | 2.10 |
| | | | A | 8522-3760 | black 2 dots | 8522-3771 | black 2 dots | | | | | | | | |
| | 16 | standard | C | 8522-881 | yellow 1 dot | 8522-883 | yellow 1 dot | 20-16 | 0.60-1.34 | 1.20 | 2.70 | | | | |
| | | | A | 8522-882 | black 1 dot | 8522-884 | black 1 dot | | | | | | | | |
| | 12 | standard | C | 8522-887 | yellow 1 dot | 8522-889 | yellow 1 dot | 14-12 | 1.91-3.18 | 1.90 | 4.01 | | | | |
| | | | A | 8522-888 | black 1 dot | 8522-890 | black 1 dot | | | | | | | | |

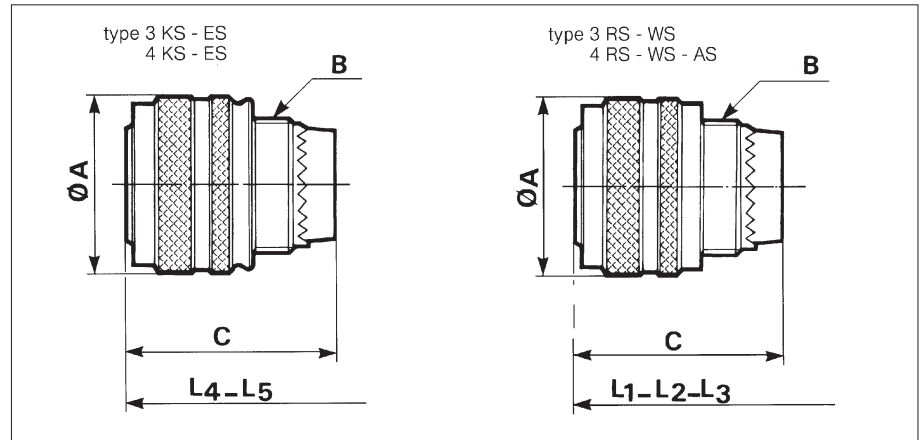
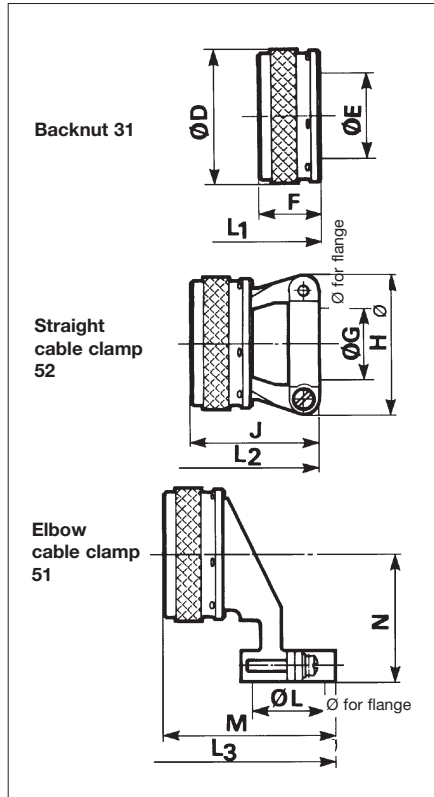
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Dimensions

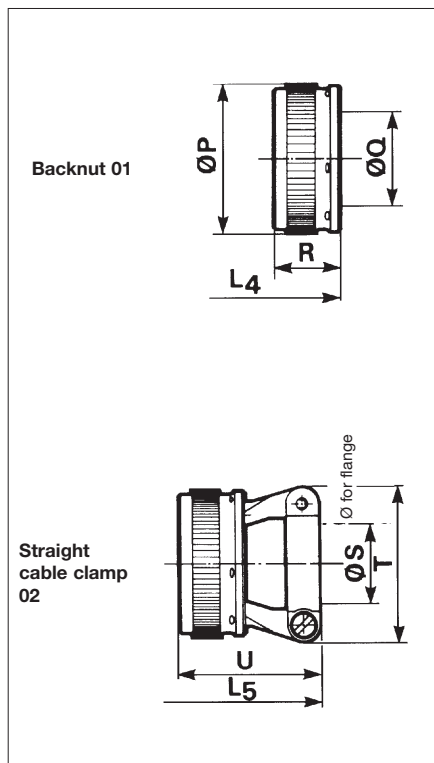
Plug type 3 classes WS - RS - KS - ES and type 4 classes WS - AS - KS - ES with backshells

Aluminum backshells



| shell size | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 28 |
|------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------|
| A Max | 21.30 .839 | 24.90 .980 | 29.60 1.165 | 31.25 1.230 | 34.42 1.355 | 37.34 1.470 | 41.91 1.650 | 44.07 1.735 | 47.24 1.860 | 52.00 2.047 |
| B Thread | 1/2"-20 UNEF 2A | 5/8"-24 UNEF 2A | 3/4"-20 UNEF 2A | 7/8"-20 UNEF 2A | 1"-20 UNEF 2A | 1-1/16"-18 UNEF 2A | 1-3/16"-18 UNEF 2A | 1-5/16"-18 UNEF 2A | 1-7/16"-18 UNEF 2A | 1-3/4"-18 UNEF 2A |
| C Max | 34.50 1.358 | 34.50 1.358 | 34.50 1.358 | 34.50 1.358 | 34.50 1.358 | 34.50 1.358 | 34.50 1.358 | 34.50 1.358 | 34.50 1.358 | 34.50 1.358 |
| D Max | 15.65 .616 | 18.60 .732 | 21.75 .856 | 24.95 .982 | 28.20 1.110 | 30.90 1.217 | 34.15 1.344 | 37.25 1.467 | 40.45 1.593 | - |
| E | 6.75 .266 | 9.40 .370 | 12.80 .504 | 14.75 .581 | 17.93 .706 | 19.94 .785 | 23.11 .910 | 26.29 1.035 | 29.20 1.150 | - |
| F Max | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | - |
| L1 Max | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | - |
| G min | 3.20 .126 | 4.75 .187 | 7.40 .291 | 8.90 .350 | 12.75 .502 | 13.45 .530 | 14.75 .581 | 16.35 .644 | 17.95 .707 | - |
| G Max | 5.20 .205 | 7.25 .285 | 10.60 .417 | 12.10 .476 | 15.90 .626 | 17.90 .705 | 21.10 .831 | 24.30 .957 | 27.50 1.083 | - |
| H Max | 19.10 .752 | 21.10 .831 | 25.10 .988 | 26.60 1.047 | 33.50 1.319 | 36.90 1.453 | 39.50 1.555 | 42.00 1.654 | 45.10 1.776 | - |
| J Max | 22.65 .892 | 24.45 .963 | 27.85 1.096 | 27.85 1.096 | 30.85 1.215 | 37.85 1.490 | 40.45 1.593 | 44.35 1.746 | 46.75 1.841 | - |
| L2 Max | 45.80 1.803 | 47.60 1.874 | 51.00 2.008 | 51.00 2.008 | 54.00 2.126 | 61.00 2.402 | 63.60 2.504 | 67.50 2.657 | 69.90 2.752 | - |
| N Max | 20.50 .807 | 22.00 .866 | 23.60 .929 | 25.20 .992 | 26.80 1.055 | 31.30 1.232 | 32.90 1.295 | 34.50 1.358 | 36.10 1.421 | - |
| L min | 3.20 .126 | 4.75 .187 | 7.40 .291 | 8.90 .350 | 12.75 .502 | 13.15 .518 | 14.75 .581 | 16.35 .644 | 17.95 .707 | - |
| L Max | 5.20 .205 | 7.25 .285 | 10.60 .417 | 12.10 .476 | 15.90 .626 | 17.90 .705 | 21.10 .831 | 24.30 .957 | 27.50 1.083 | - |
| M Max | 27.60 1.087 | 29.30 1.154 | 31.90 1.256 | 33.40 1.315 | 37.30 1.469 | 38.70 1.524 | 40.25 1.585 | 41.90 1.650 | 43.50 1.713 | - |
| L3 Max | 50.75 1.998 | 52.45 2.065 | 55.05 2.167 | 56.55 2.226 | 60.45 2.380 | 61.85 2.435 | 63.40 2.496 | 65.05 2.561 | 66.65 2.624 | - |
| P Max | 15.20 .598 | 18.30 .720 | 21.50 .846 | 24.70 .972 | 28.70 1.130 | 29.60 1.165 | 32.90 1.295 | 36.00 1.417 | 39.50 1.555 | - |
| Q Max | 7.50 .295 | 9.70 .382 | 12.90 .508 | 14.90 .587 | 18.05 .711 | 20.05 .789 | 23.40 .921 | 26.40 1.039 | 29.50 1.161 | - |
| R Max | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | - |
| L4 Max | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | - |
| S min | 3.18 .125 | 4.75 .187 | 7.40 .291 | 8.91 .351 | 12.72 .501 | 13.16 .518 | 14.76 .581 | 16.36 .644 | 17.93 .706 | - |
| S Max | 5.18 .204 | 7.26 .286 | 10.57 .416 | 12.10 .476 | 15.88 .623 | 17.93 .706 | 21.11 .831 | 24.28 .956 | 27.46 1.081 | - |
| T Max | 19.10 .752 | 21.15 .833 | 25.10 .988 | 26.60 1.047 | 33.50 1.319 | 36.90 1.453 | 39.60 1.559 | 42.00 1.654 | 45.10 1.776 | - |
| U Max | 22.50 .886 | 25.35 .998 | 28.50 1.122 | 28.50 1.122 | 31.70 1.248 | 38.05 1.498 | 41.50 1.634 | 44.40 1.748 | 47.60 1.874 | - |
| L5 Max | 45.80 1.803 | 48.65 1.915 | 51.80 2.039 | 51.80 2.039 | 55.00 2.165 | 61.35 2.415 | 64.80 2.551 | 67.70 2.665 | 70.90 2.791 | - |

Stainless steel backshells

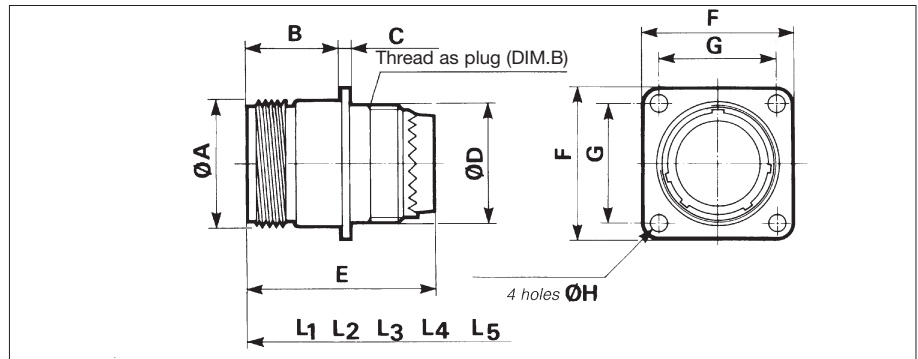
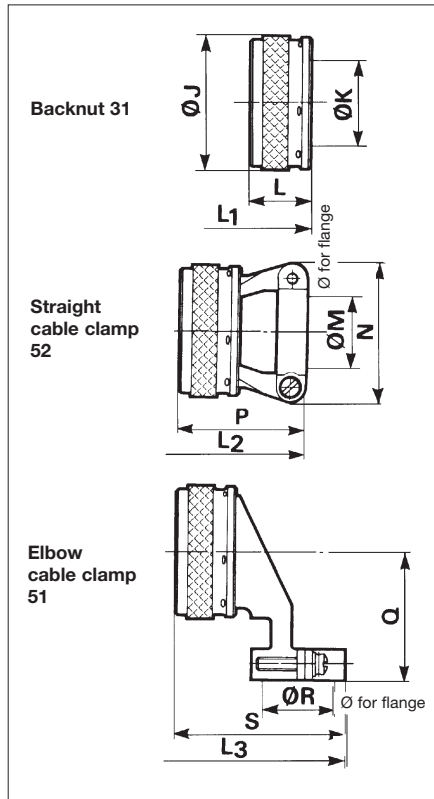


8533 Series



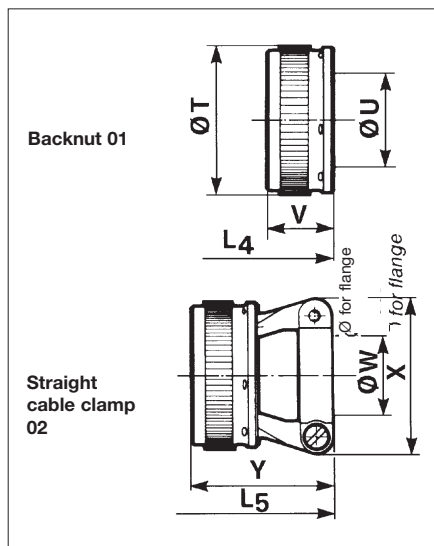
Square flange receptacle type 0 classes WS - RS - AS - KS - ES with backshells

Aluminum backshells



| shell size | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 28 |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| A Max | 14.27 .562 | 17.48 .688 | 22.22 .875 | 23.83 .938 | 26.97 1.062 | 30.18 1.188 | 33.32 1.312 | 36.53 1.438 | 39.67 1.562 | 45.99 1.811 |
| B Max | 18.35 .722 | 18.35 .722 | 18.35 .722 | 18.35 .722 | 18.35 .722 | 18.35 .722 | 18.35 .722 | 18.35 .722 | 18.35 .722 | 18.35 .722 |
| C Max | 1.45 .057 | 1.45 .057 | 1.45 .057 | 1.45 .057 | 1.45 .057 | 1.45 .057 | 1.45 .057 | 1.45 .057 | 1.45 .057 | 1.45 .057 |
| D Max | 12.66 .498 | 15.84 .624 | 19.02 .749 | 22.19 .874 | 25.36 .998 | 26.95 1.061 | 30.12 1.186 | 33.30 1.311 | 36.47 1.436 | 44.41 1.748 |
| E Max | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 |
| F Max | 20.75 .817 | 23.95 .943 | 26.31 1.036 | 28.69 1.130 | 31.88 1.255 | 34.24 1.348 | 36.63 1.442 | 39.80 1.567 | 43.38 1.708 | 50.83 2.001 |
| G | 15.09 .594 | 18.26 .719 | 20.62 .812 | 23.01 .906 | 24.61 1.110 | 26.97 1.062 | 29.36 1.156 | 31.75 1.250 | 34.92 1.375 | 39.67 1.562 |
| H Max | 3.10 .122 | 3.10 .122 | 3.10 .122 | 3.10 .122 | 3.10 .122 | 3.10 .122 | 3.10 .122 | 3.10 .122 | 3.90 .154 | 3.90 .154 |
| J Max | 15.65 .616 | 18.60 .732 | 21.75 .856 | 24.95 .982 | 28.20 1.110 | 30.90 1.217 | 34.15 1.344 | 37.25 1.467 | 40.45 1.593 | - |
| K | 6.75 .266 | 9.40 .370 | 12.80 .504 | 14.75 .581 | 17.95 .707 | 19.95 .785 | 23.10 .909 | 26.30 1.035 | 40.45 1.593 | - |
| L Max | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | - |
| L1 Max | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | - |
| M min | 3.20 .126 | 4.75 .187 | 7.40 .291 | 8.90 .350 | 12.75 .502 | 13.15 .518 | 14.75 .581 | 16.35 .644 | 17.95 .707 | - |
| M Max | 5.20 .205 | 7.25 .285 | 10.60 .417 | 12.10 .476 | 15.90 .626 | 17.90 .705 | 21.10 .831 | 24.30 .957 | 27.50 1.083 | - |
| N Max | 19.10 .752 | 21.10 .831 | 25.10 .988 | 26.60 1.047 | 33.50 1.319 | 36.90 1.453 | 39.50 1.555 | 42.00 1.654 | 45.10 1.776 | - |
| P Max | 22.65 .892 | 24.45 .963 | 27.85 1.096 | 27.85 1.096 | 30.85 1.215 | 37.85 1.490 | 40.45 1.593 | 44.35 1.746 | 46.75 1.841 | - |
| L2 Max | 47.40 1.866 | 49.20 1.937 | 52.60 2.071 | 52.60 2.071 | 55.60 2.189 | 62.60 2.465 | 65.20 2.567 | 69.10 2.720 | 71.50 2.815 | - |
| Q Max | 20.50 .807 | 22.00 .866 | 23.60 .929 | 25.20 .992 | 26.80 1.055 | 31.30 1.232 | 32.90 1.295 | 34.50 1.358 | 36.10 1.421 | - |
| R min | 3.20 .126 | 4.75 .187 | 7.40 .291 | 8.90 .350 | 12.75 .502 | 13.15 .518 | 14.75 .581 | 16.35 .644 | 17.95 .707 | - |
| R Max | 5.20 .205 | 7.25 .285 | 10.60 .417 | 12.10 .476 | 15.90 .626 | 17.90 .705 | 21.10 .831 | 24.30 .957 | 27.50 1.083 | - |
| S Max | 27.60 1.087 | 29.30 1.154 | 31.90 1.256 | 33.40 1.315 | 37.30 1.469 | 38.70 1.524 | 40.25 1.585 | 41.90 1.650 | 43.50 1.713 | - |
| L3 Max | 52.35 2.061 | 54.05 2.128 | 56.65 2.230 | 58.15 2.289 | 62.05 2.443 | 63.45 2.498 | 65.00 2.559 | 66.65 2.624 | 68.25 2.687 | - |
| T Max | 15.20 .598 | 18.30 .720 | 21.50 .846 | 24.70 .972 | 28.10 1.106 | 29.60 1.165 | 32.90 1.295 | 36.00 1.417 | 39.50 1.555 | - |
| U Max | 7.50 .295 | 9.70 .382 | 12.90 .508 | 14.90 .587 | 18.05 .711 | 20.05 .789 | 23.40 .921 | 26.40 1.039 | 29.50 1.161 | - |
| V Max | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | - |
| L4 Max | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | - |
| W min | 3.18 .125 | 4.75 .187 | 7.40 .291 | 8.91 .351 | 12.72 .501 | 13.16 .518 | 14.76 .581 | 16.36 .644 | 17.93 .706 | - |
| W Max | 5.18 .204 | 7.26 .286 | 10.57 .416 | 12.10 .476 | 15.88 .625 | 17.93 .706 | 21.11 .831 | 24.28 .956 | 27.46 1.081 | - |
| X Max | 19.10 .752 | 21.15 .833 | 25.10 .988 | 26.60 1.047 | 33.50 1.319 | 36.90 1.453 | 39.60 1.559 | 42.00 1.654 | 45.10 1.776 | - |
| Y Max | 22.50 .886 | 25.35 .998 | 28.50 1.122 | 28.50 1.122 | 31.70 1.248 | 38.05 1.498 | 41.50 1.634 | 44.40 1.748 | 47.60 1.874 | - |
| L5 Max | 47.40 1.866 | 50.25 1.978 | 53.40 2.102 | 53.40 2.102 | 56.60 2.228 | 62.95 2.478 | 66.40 2.614 | 69.30 2.728 | 72.60 2.858 | - |

Stainless steel backshells

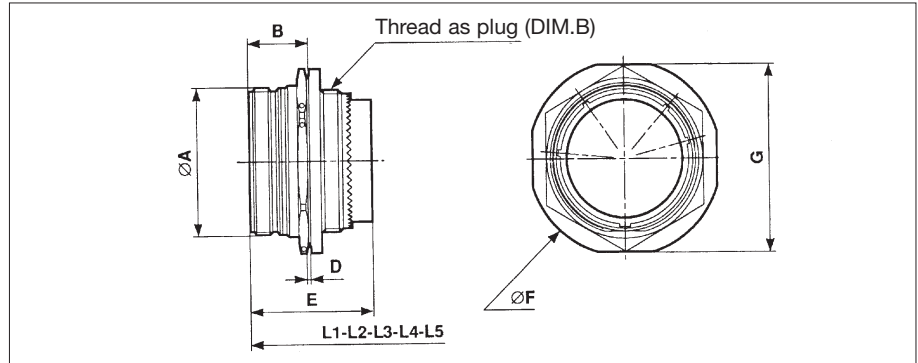
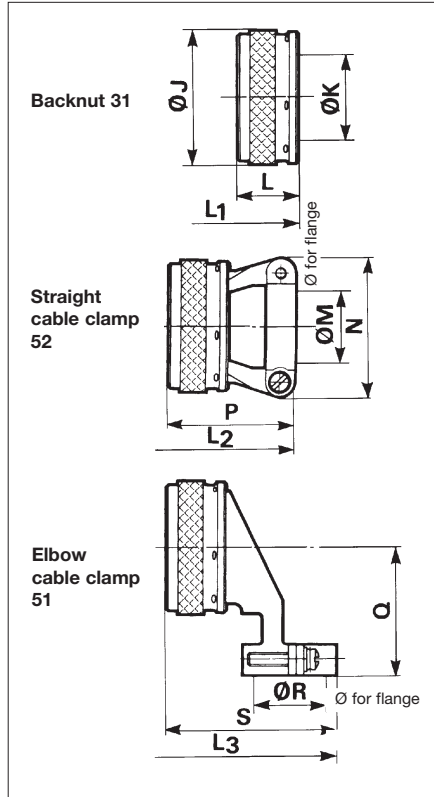


8533 Series



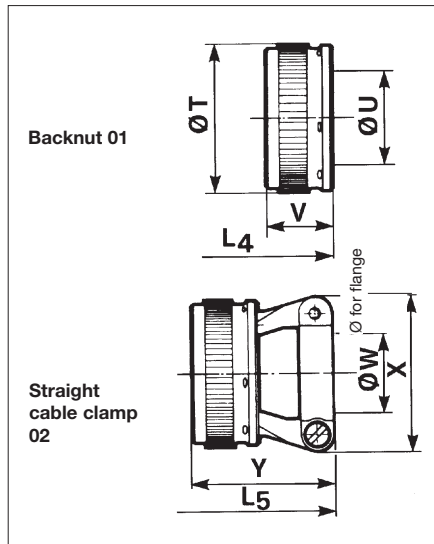
Jam nut receptacle type 7 classes WS - RS - AS - KS - ES with backshells

Aluminum backshells



| shell size | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|---------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| A Max | 14.27 .562 | 17.47 .688 | 22.22 .875 | 23.82 .938 | 26.97 1.062 | 30.18 1.188 | 33.32 1.312 | 36.53 1.438 | 39.67 1.562 |
| B Max | 19.84 .781 | 19.84 .781 | 19.84 .781 | 19.84 .781 | 19.84 .781 | 19.84 .781 | 19.84 .781 | 19.84 .781 | 19.84 .781 |
| D | min 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 |
| D Max | 1.57 .062 | 1.57 .062 | 1.57 .062 | 1.57 .062 | 1.57 .062 | 1.57 .062 | 1.57 .062 | 1.57 .062 | 1.57 .062 |
| E Max | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 | 36.00 1.417 |
| F Max | 27.38 1.078 | 30.28 1.192 | 35.05 1.380 | 38.51 1.516 | 41.68 1.641 | 44.86 1.766 | 49.63 1.954 | 52.78 2.078 | 55.42 2.182 |
| G Max | 24.89 .980 | 28.04 1.104 | 32.79 1.291 | 35.33 1.391 | 38.51 1.516 | 41.68 1.641 | 44.86 1.766 | 49.63 1.954 | 52.81 2.079 |
| H Max | 21.06 .829 | 24.23 .954 | 29.01 1.142 | 30.61 1.205 | 33.76 1.329 | 36.96 1.455 | 40.11 1.579 | 43.31 1.705 | 46.46 1.829 |
| J Max | 15.65 .616 | 18.60 .732 | 21.75 .856 | 24.95 .982 | 28.20 1.110 | 30.90 1.217 | 34.15 1.344 | 37.25 1.467 | 40.45 1.593 |
| K | 6.75 .266 | 9.40 .370 | 12.80 .504 | 14.75 .581 | 17.95 .707 | 19.95 .785 | 23.10 .909 | 26.30 1.035 | 40.45 1.593 |
| L Max | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 | 12.85 .506 |
| L1 Max | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 |
| M | min 3.20 .126 | 4.75 .187 | 7.40 .291 | 8.90 .350 | 12.75 .502 | 13.15 .518 | 14.75 .581 | 16.35 .644 | 17.95 .707 |
| M Max | 5.20 .205 | 7.25 .285 | 10.60 .417 | 12.10 .476 | 15.90 .626 | 17.90 .705 | 21.10 .831 | 24.30 .957 | 27.50 1.083 |
| N Max | 19.10 .752 | 21.10 .831 | 25.10 .988 | 26.60 1.047 | 33.50 1.319 | 36.90 1.453 | 39.50 1.555 | 42.00 1.654 | 45.10 1.776 |
| P Max | 22.65 .892 | 24.45 .963 | 27.85 1.096 | 27.85 1.096 | 30.85 1.215 | 37.85 1.490 | 40.45 1.593 | 44.35 1.746 | 46.75 1.841 |
| L2 Max | 47.40 1.866 | 49.20 1.937 | 52.60 2.071 | 52.60 2.071 | 55.60 2.189 | 62.60 2.465 | 65.20 2.567 | 69.10 2.720 | 71.50 2.815 |
| O Max | 20.50 .807 | 22.00 .866 | 23.60 .929 | 25.20 .992 | 26.80 1.055 | 31.30 1.232 | 32.90 1.295 | 34.50 1.358 | 36.10 1.421 |
| R | min 3.20 .126 | 4.75 .187 | 7.40 .291 | 8.90 .350 | 12.75 .502 | 13.15 .518 | 14.75 .581 | 16.35 .644 | 17.95 .707 |
| R Max | 5.20 .205 | 7.25 .285 | 10.60 .417 | 12.10 .476 | 15.90 .626 | 17.90 .705 | 21.10 .831 | 24.30 .957 | 27.50 1.083 |
| S Max | 27.60 1.087 | 29.30 1.154 | 31.90 1.256 | 33.40 1.315 | 37.30 1.469 | 38.70 1.524 | 40.25 1.585 | 41.90 1.650 | 43.50 1.713 |
| L3 Max | 52.35 2.061 | 54.05 2.128 | 56.65 2.230 | 58.15 2.289 | 62.05 2.443 | 63.45 2.498 | 65.00 2.559 | 66.65 2.624 | 68.25 2.687 |
| T Max | 15.20 .598 | 18.30 .720 | 21.50 .846 | 24.70 .972 | 28.10 1.106 | 29.60 1.165 | 32.90 1.295 | 36.00 1.417 | 39.50 1.555 |
| U Max | 7.50 .295 | 9.70 .382 | 12.90 .508 | 14.90 .587 | 18.05 .711 | 20.05 .789 | 23.40 .921 | 26.40 1.039 | 29.50 1.161 |
| V Max | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 | 12.70 .500 |
| L4 Max | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 | 37.60 1.480 |
| W | min 3.18 .125 | 4.75 .187 | 7.40 .291 | 8.91 .351 | 12.72 .501 | 13.16 .354 | 14.76 .581 | 16.36 .644 | 17.93 .706 |
| W Max | 5.18 .204 | 7.26 .286 | 10.57 .416 | 12.10 .476 | 15.88 .625 | 17.93 .706 | 21.11 .831 | 24.28 .956 | 27.46 1.081 |
| X Max | 19.10 .752 | 21.15 .833 | 25.10 .988 | 26.60 1.047 | 33.50 1.319 | 36.90 1.453 | 39.60 1.559 | 42.00 1.654 | 45.10 1.776 |
| Y Max | 22.50 .886 | 25.35 .998 | 28.50 1.122 | 28.50 1.122 | 31.70 1.248 | 38.05 1.498 | 41.50 1.634 | 44.40 1.748 | 47.60 1.874 |
| L5 Max | 47.40 1.866 | 50.25 1.978 | 53.40 2.102 | 53.40 2.102 | 56.60 2.228 | 62.95 2.478 | 66.40 2.614 | 69.30 2.728 | 72.60 2.858 |

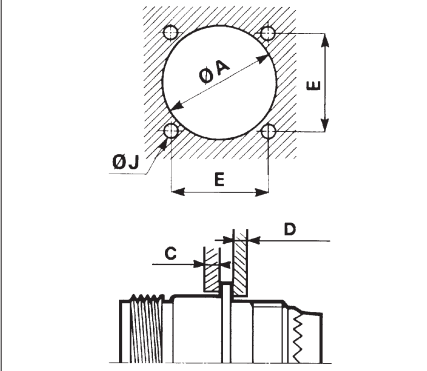
Stainless steel backshells



8533 Series



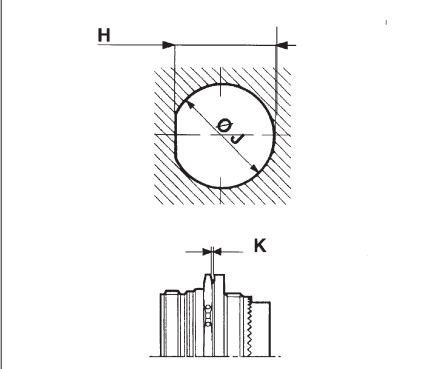
Panel cut-out



Type 0

| shell size | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 28 |
|------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| A min | 15.80 .622 | 18.70 .736 | 23.40 .921 | 24.90 .980 | 28.30 1.114 | 31.10 1.224 | 34.50 1.358 | 37.50 1.476 | 40.60 1.598 | 48.00 1.890 |
| E | 15.09 .594 | 18.26 .719 | 20.62 .812 | 23.01 .906 | 24.61 .969 | 26.97 1.062 | 29.36 1.156 | 31.75 1.250 | 34.92 1.375 | 39.67 1.562 |
| J | 3.20 .126 | 3.20 .126 | 3.20 .126 | 3.20 .126 | 3.20 .126 | 3.20 .126 | 3.20 .126 | 3.20 .126 | 3.80 .150 | 3.80 .150 |
| C Max | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 |
| D Max | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 |

Panel cut-out

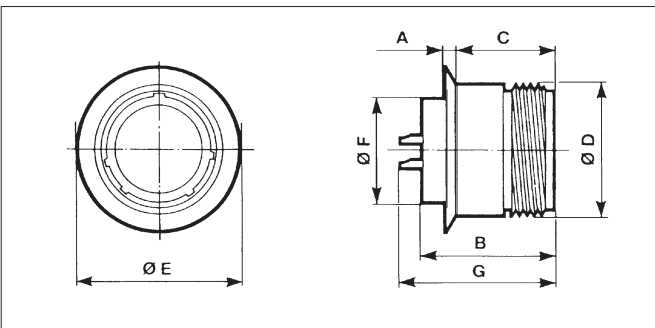


Type 7

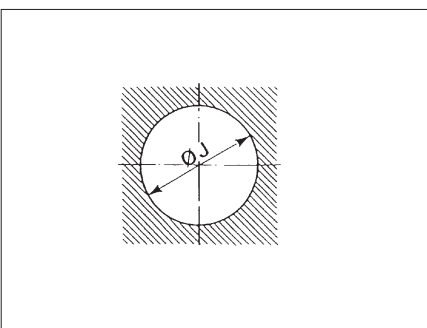
| shell size | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| J | 16.00 .630 | 19.17 .755 | 23.92 .942 | 25.52 1.005 | 28.70 1.130 | 31.87 1.255 | 35.05 1.380 | 38.22 1.505 | 41.40 1.630 |
| H | 15.24 .600 | 18.41 .725 | 23.16 .912 | 24.76 .975 | 27.94 1.100 | 30.99 1.220 | 34.16 1.345 | 37.33 1.470 | 40.51 1.595 |
| K Max | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 | 3.18 .125 |

Dimensions

Hermetic receptacle Type 1Y/1YE



Panel cut-out



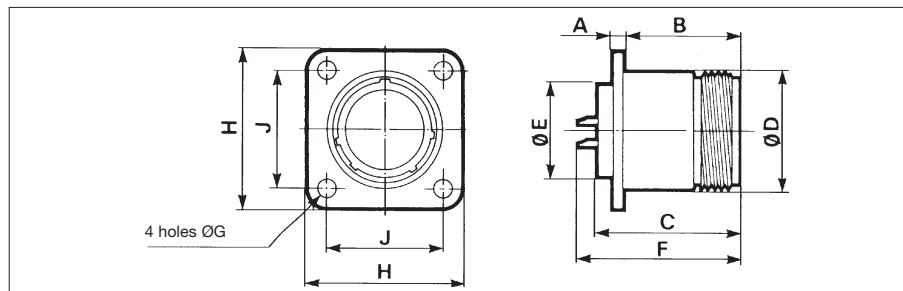
| shell size | A Max | B Max | C Max | D Max | E Max | F Max | G Max | ØJ min |
|------------|--------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|
| 08 | 1.45 .057 | 22.05 .868 | 18.45 .726 | 14.29 .563 | 18.12 .713 | 12.70 .500 | 26.50 1.043 | 12.96 .510 |
| 10 | 1.45 .057 | 22.05 .868 | 18.45 .726 | 17.46 .687 | 21.52 .847 | 14.25 .561 | 26.50 1.043 | 14.53 .572 |
| 12 | 1.45 .057 | 22.05 .868 | 18.45 .726 | 22.22 .875 | 26.57 1.046 | 19.05 .750 | 26.50 1.043 | 19.30 .760 |
| 14 | 1.45 .057 | 22.05 .868 | 18.45 .726 | 23.81 .937 | 27.82 1.095 | 20.60 .811 | 26.50 1.043 | 20.88 .822 |
| 16 | 1.45 .057 | 22.05 .868 | 18.45 .726 | 26.99 1.063 | 30.92 1.217 | 23.79 .937 | 26.50 1.043 | 24.05 .947 |
| 18 | 1.45 .057 | 22.05 .868 | 18.45 .726 | 30.16 1.187 | 34.22 1.347 | 26.95 1.061 | 26.50 1.043 | 27.23 1.072 |
| 20* | 1.45 .057 | 22.05 .868 | 18.45 .726 | 33.34 1.313 | 37.22 1.465 | 30.12 1.186 | 26.50 1.043 | 30.40 1.097 |
| 22 | 1.45 .057 | 22.05 .868 | 18.45 .726 | 36.51 1.437 | 40.62 1.599 | 33.30 1.311 | 26.50 1.043 | 23.58 .928 |
| 24* | 1.45 .057 | 22.05 .868 | 18.45 .726 | 39.69 1.563 | 43.62 1.717 | 36.47 1.436 | 26.50 1.043 | 36.70 1.445 |

* Consult us

8533 Series



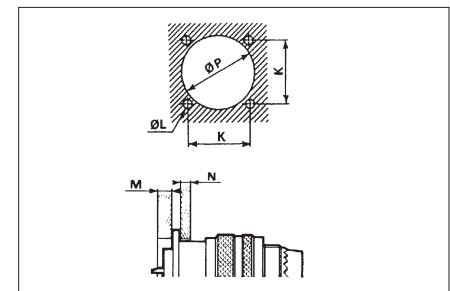
Hermetic receptacle type 2Y/2YE



| shell size | A Max | B Max | C Max | D Max | E Max | F Max | G Max | H Max | J Max |
|------------|--------------|---------------|---------------|----------------|----------------|----------------|--------------|----------------|----------------|
| 08 | 1.45 .057 | 18.35 .722 | 22.05 .868 | 14.29 .563 | 12.70 .500 | 26.50 1.043 | 3.00 .118 | 20.75 .817 | 15.09 .594 |
| 10 | 1.45 .057 | 18.35 .722 | 22.05 .868 | 17.46 .687 | 14.25 .561 | 26.50 1.043 | 3.00 .118 | 23.95 .943 | 18.26 .719 |
| 12 | 1.45 .057 | 18.35 .722 | 22.05 .868 | 22.22 .875 | 19.05 .750 | 26.50 1.043 | 3.00 .118 | 26.31 1.036 | 20.62 .812 |
| 14 | 1.45 .057 | 18.35 .722 | 22.05 .868 | 23.81 .937 | 20.60 .811 | 26.50 1.043 | 3.00 .118 | 28.69 1.130 | 23.01 .906 |
| 16 | 1.45 .057 | 18.35 .722 | 22.05 .868 | 26.99 1.063 | 23.79 .937 | 26.50 1.043 | 3.00 .118 | 31.88 1.255 | 24.61 .969 |
| 18 | 1.45 .057 | 18.35 .722 | 22.05 .868 | 30.16 1.187 | 26.95 1.061 | 26.50 1.043 | 3.00 .118 | 34.24 1.348 | 26.97 1.062 |
| 20* | 1.45 .057 | 18.35 .722 | 22.05 .868 | 33.34 1.313 | 30.12 1.186 | 26.50 1.043 | 3.00 .118 | 36.63 1.442 | 29.36 1.156 |
| 22 | 1.45 .057 | 18.35 .722 | 22.05 .868 | 36.51 1.437 | 33.30 1.311 | 26.50 1.043 | 3.00 .118 | 39.80 1.567 | 31.75 1.250 |
| 24* | 1.45 .057 | 18.35 .722 | 22.05 .868 | 39.69 1.563 | 36.47 1.436 | 26.50 1.043 | 3.80 .150 | 43.38 1.708 | 34.92 1.375 |

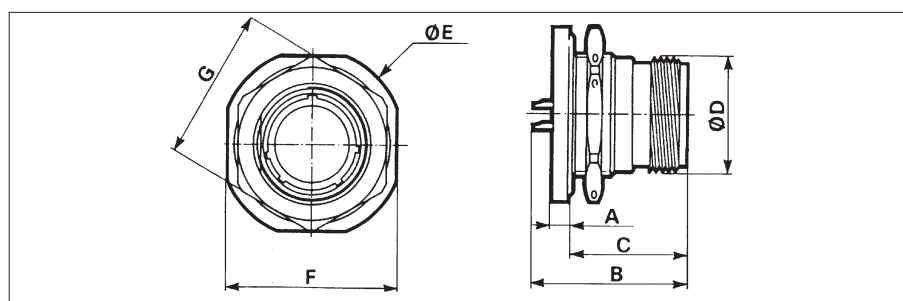
* Not industrialized

Panel cut-out



| K | L | M | N Max | P min |
|----------------|--------------|--------------|--------------|----------------|
| 15.09 .594 | 3.20 .126 | 3.18 .125 | 3.18 .125 | 15.70 .618 |
| 18.26 .719 | 3.20 .126 | 3.18 .125 | 3.18 .125 | 18.90 .744 |
| 20.62 .812 | 3.20 .126 | 3.18 .125 | 3.18 .125 | 23.50 .925 |
| 23.01 .906 | 3.20 .126 | 3.18 .125 | 3.18 .125 | 25.10 .988 |
| 24.61 .969 | 3.20 .126 | 3.18 .125 | 3.18 .125 | 28.30 1.114 |
| 26.97 1.062 | 3.20 .126 | 3.18 .125 | 3.18 .125 | 31.40 1.236 |
| 29.36 1.156 | 3.20 .126 | 3.18 .125 | 3.18 .125 | 34.60 1.362 |
| 31.75 1.250 | 3.20 .126 | 3.18 .125 | 3.18 .125 | 37.80 1.488 |
| 34.92 1.375 | 4.00 .157 | 3.18 .125 | 3.18 .125 | 40.90 1.610 |

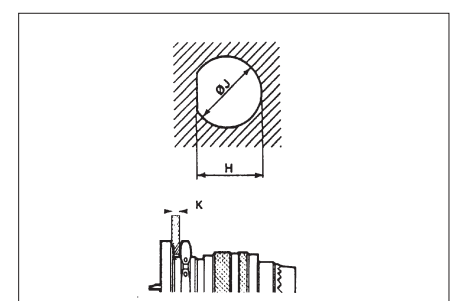
Hermetic receptacle type 7Y/7YE



| shell size | A Max | B Max | C Max | D Max | E Max | F Max | G Max |
|------------|--------------|----------------|---------------|----------------|----------------|----------------|----------------|
| 08 | 2.60 .102 | 26.50 1.043 | 19.52 .769 | 14.29 .563 | 27.35 1.077 | 24.85 .978 | 20.12 .792 |
| 10 | 2.60 .102 | 26.50 1.043 | 19.52 .769 | 17.46 .687 | 30.24 1.191 | 28.00 1.102 | 24.20 .953 |
| 12 | 2.60 .102 | 26.50 1.043 | 19.52 .769 | 22.22 .875 | 35.01 1.378 | 32.75 1.289 | 28.95 1.140 |
| 14 | 2.60 .102 | 26.50 1.043 | 19.52 .769 | 23.81 .937 | 38.46 1.514 | 35.29 1.389 | 30.30 1.193 |
| 16 | 2.60 .102 | 26.50 1.043 | 19.52 .769 | 26.99 1.063 | 41.64 1.639 | 38.46 1.514 | 33.45 1.317 |
| 18 | 2.60 .102 | 26.50 1.043 | 19.52 .769 | 30.16 1.187 | 44.81 1.764 | 41.64 1.639 | 34.64 1.364 |
| 20* | 3.35 .132 | 26.50 1.043 | 19.52 .769 | 33.34 1.313 | 49.60 1.953 | 44.86 1.766 | 39.80 1.567 |
| 22 | 3.35 .132 | 26.50 1.043 | 19.52 .769 | 36.51 1.437 | 52.74 2.076 | 49.59 1.952 | 43.00 1.693 |
| 24* | 3.35 .132 | 26.50 1.043 | 19.52 .769 | 39.69 1.563 | 55.40 2.181 | 52.81 2.079 | 46.15 1.817 |

* Not industrialized

Panel cut-out

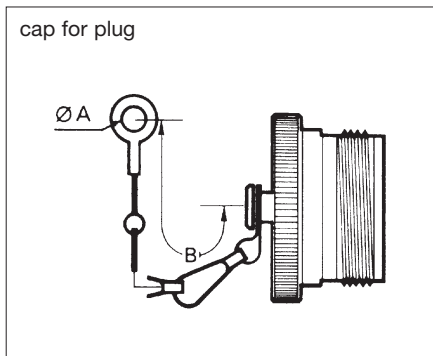


| H | J | K Max |
|----------------|----------------|--------------|
| 15.24 .600 | 16.00 .630 | 3.17 .125 |
| 18.41 .725 | 19.17 .755 | 3.17 .125 |
| 23.16 .912 | 23.92 .942 | 3.17 .125 |
| 24.76 .975 | 25.52 1.005 | 3.17 .125 |
| 27.94 1.100 | 28.70 1.130 | 3.17 .125 |
| 30.99 1.220 | 31.87 1.255 | 3.17 .125 |
| 34.16 1.345 | 35.05 1.380 | 3.17 .125 |
| 37.33 1.470 | 38.22 1.505 | 3.17 .125 |
| 40.51 1.595 | 41.40 1.630 | 3.17 .125 |

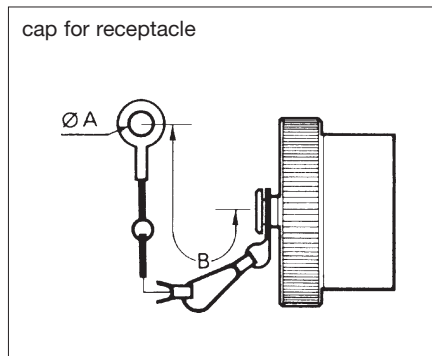
8533 Series



Protective caps



Aluminum version



| shells | A Max | B Max |
|-----------|--------------|-----------------|
| 08 | 3.20 .126 | 134.00 5.276 |
| 10 | 3.20 .126 | 134.00 5.276 |
| 12 | 3.20 .126 | 134.00 5.276 |
| 14 | 3.20 .126 | 134.00 5.276 |
| 16 | 3.20 .126 | 134.00 5.276 |
| 18 | 3.20 .126 | 134.00 5.276 |
| 22 | 3.20 .126 | 134.00 5.276 |

Tooling crimping

| contact sizes | wires | | part numbers | |
|---------------|-----------------|-----|---|--|
| | mm ² | AWG | crimping pliers | locator |
| 20 | 0.93 | 18 | 8365 (M 22520 / 1-01) or 8476-01 (M 22520 / 2-01) | 8365-02 (M22520 / 1-02) or 8476-02 (M22520 / 2-02) |
| | 0.60 | 20 | | |
| | 0.38 | 22 | | |
| | 0.21 | 24 | | |
| 16 | 1.91 | 14 | 8365 (M 22520 / 1-01) | 8365-02 (M 22520 / 1-02) |
| | 1.34 | 16 | | |
| | 0.93 | 18 | | |
| | 0.60 | 20 | | |
| 12 | 3.18 | 12 | 8365 (M 22520 / 1-01) | 8365-02 (M 22520 / 1-02) |
| | 1.91 | 14 | | |

Insertion and extraction of wired contacts

disposable plastic tool :

- colored tip for insertion
- white tip for extraction

| contact sizes | part numbers | colour |
|---------------|-------------------------|--------|
| 20 | (M 81969-14-11) 8522-20 | red |
| 16 | (M 81969-14-03) 8522-16 | blue |
| 12 | (M 81969-14-04) 8522-12 | yellow |

Extraction of unwired contacts

| contact sizes | part numbers |
|---------------|--------------|
| 20 | 8522-56 |
| 16 | 8522-57 |
| 12 | 8522-58 |

Filler plug

these filler plugs are installed at the rear of unwired contacts to maintain connector sealing

| contact sizes | part numbers | colour |
|---------------|-------------------------|--------|
| 20 | 8522-389 A*/MS 27488-20 | red |
| 16 | 8522-390 A/MS 27488-16 | blue |
| 12 | 8522-391 A/MS 27488-12 | yellow |

* for class 200°C only

Reusable fixing plate

Two, three or four holes self locking fixing plates, see page 126.