# Technical guides

## Contact arrangement / Assembly / Wiring / Example of cable clamp assembly / Attachment of panel connectors to a wall / Polarisation

JAEGER
CONNECTEURS

# Contact arrangement

## Standard, Rapid, Waterproof and Hermetic Series

**Housing 1**
3 contacts
1 x ø 2 mm, 2 x ø 3 mm

**Housing 1**
4 contacts
4 x ø 2 mm

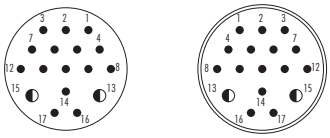
**Housing 1**
6 contacts
6 x ø 2 mm

**Housing 2**
4 contacts
4 x ø 4 mm

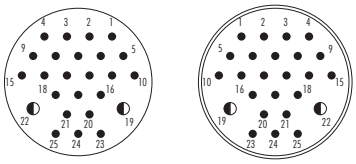
**Housing 2**
8 contacts
6 x ø 2 mm, 2 x ø 3 mm,

**Housing 2**
12 contacts
12 x ø 2 mm

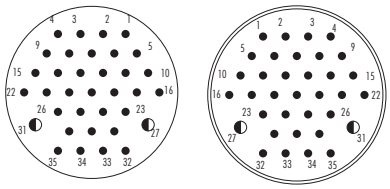
**Housing 3**
17 contacts
15 x ø 2 mm, 2 x ø 3 mm,



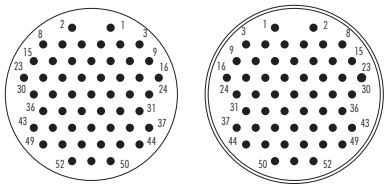
**Housing 4**
25 contacts
23 x ø 3 mm, 2 x ø 3 mm



**Housing 5**
35 contacts
33 x ø 2 mm, 2 x ø 3 mm



**Housing 5**
52 contacts
52 x ø 2 mm



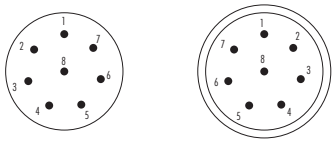
## Identification of the contacts on the solder side

- ○ Male panel connector / Male cable connector
- ◎ Female panel connector / Female cable connector
- • contact ø 2 mm
- ◐ contact ø 3 mm
- ◔ contact ø 4 mm

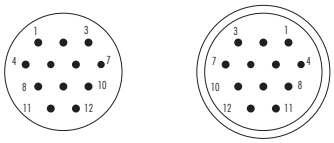
## Atto Miniature Push-Pull Serie

**Housing 00**
7 contacts
7 x ø 0,76 mm

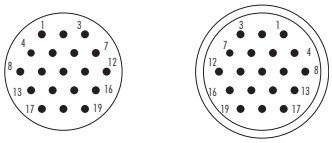
**Housing 0**
8 contacts
8 x ø 0,76 mm



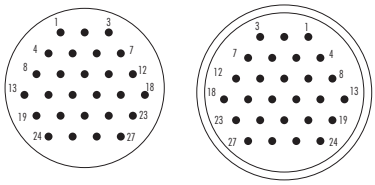
**Housing 0**
12 contacts
12 x ø 0,76 mm



**Housing 0**
19 contacts
19 x ø 0,76 mm



**Housing 1**
27 contacts
27 x ø 0,76 mm



## Identification of the contacts on the solder, crimp side

○ Male panel connector
Male cable connector

◎ Female panel connector
Female cable connector

• contact ø 0,76 mm

# Contact arrangement

## Miniature, Natto Miniature Push-Pull, Marine, Neptunox, Robotic and Minex Series

### Housing 00
3 contacts
3 x ø 1 mm
Natto Miniature Push-Pull, Minex Series

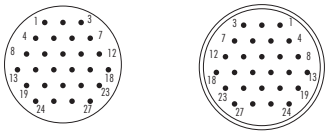
### Housing 00
4 contacts
4 x ø 1 mm
Natto Miniature Push-Pull, Minex Series

### Housing 0
7 contacts
7 x ø 1 mm
Natto Miniature Push-Pull, Minex Series

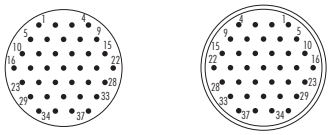
### Housing 1
12 contacts
12 x ø 1 mm
Natto Miniature Push-Pull, Miniature, Marine, Neptunox, Robotic Series

### Housing 1
19 contacts
19 x ø 1 mm
Natto Miniature Push-Pull, Miniature, Marine, Neptunox, Robotic Series

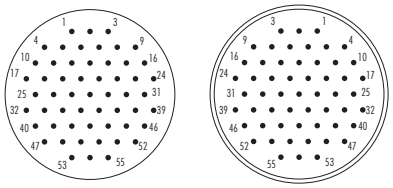
### Housing 2
27 contacts
27 x ø 1 mm
Miniature, Marine, Neptunox, Robotic Series



### Housing 2
37 contacts
37 x ø 1 mm
Miniature, Marine, Neptunox, Robotic Series



### Housing 3
55 contacts
55 x ø 1 mm
Miniature Series



## Identification of the contacts on the solder, crimp side

○ Male panel connector
Male cable connector

◎ Female panel connector
Female cable connector

• contact ø 1 mm

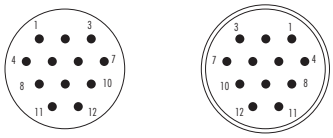
## Natto Miniature Push-Pull, Industrial, Marine, Neptunox and Robotic Series — ø 1,6 mm and ø 2,4 mm

**Housing 1**
3 contacts
3 x ø 1,6 mm
Natto Miniature Push-Pull, Industrial, Marine, Neptunox Series

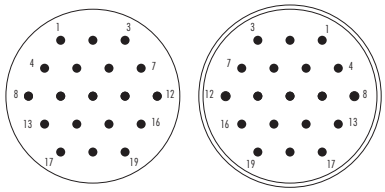
**Housing 1**
4 contacts
4 x ø 1,6 mm
Natto Miniature Push-Pull, Industrial, Marine, Neptunox Series

**Housing 1**
7 contacts
7 x ø 1,6 mm
Natto Miniature Push-Pull, Industrial, Marine, Robotic Series

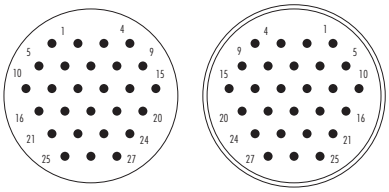
**Housing 2**
12 contacts
12 x ø 1,6 mm
Industrial, Marine, Neptunox Series



**Housing 3**
19 contacts
19 x ø 1,6 mm
Industrial Series



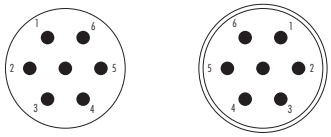
**Housing 3**
27 contacts
27 x ø 1,6 mm
Industrial Series



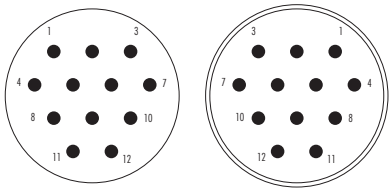
**Housing 1**
3 contacts
3 x ø 2,4 mm
Natto Miniature Push-Pull, Industrial, Marine, Neptunox Series

**Housing 1**
4 contacts
4 x ø 2,4 mm
Natto Miniature Push-Pull, Industrial, Marine, Neptunox, Robotic Series

**Housing 2**
7 contacts
7 x ø 2,4 mm
Industrial, Marine, Neptunox Series



**Housing 3**
12 contacts
12 x ø 2,4 mm
Industrial Series



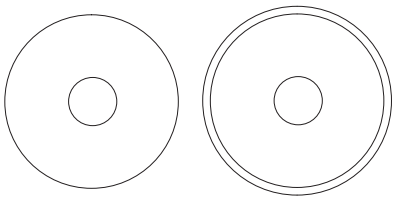
## Identification of the contacts on the solder, crimp side

- ○ Male panel connector / Male cable connector
- ◎ Female panel connector / Female cable connector
- • contact ø 1,6 mm
- ● contact ø 2,4 mm

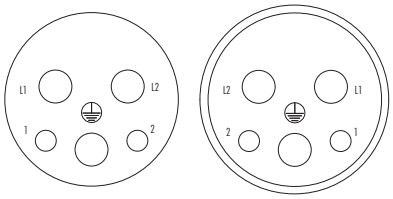
# Contact arrangement

## Power Series Puissance

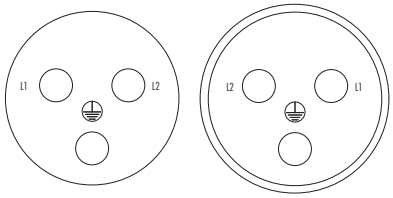
**Housing 5**
Single-pole connector
1 x ø 8 mm or 1 x ø 12 mm



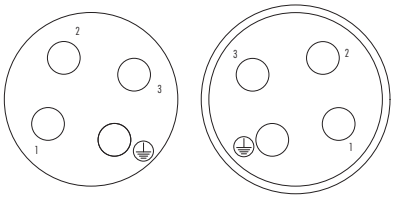
**Housing 5**
Multi-pole connector
3 contacts x ø 8 mm + 2 pilot contacts ø 1,6 mm




**Housing 5**
Multi-pole connector
3 contacts ø 8 mm „Economic"




**Housing 5**
Multi-pole connector
4 contacts x ø 8 mm

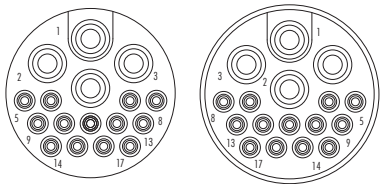



## Identification of the contacts on the solder side

- Male panel connector / Male cable connector
- Female panel connector / Female cable connector
- contact ø 1,6 mm
- contact ø 8 mm
- contact ø 12 mm

## Industrial and Robotics Series with 17 mixed contacts

**Housing**
17 contacts
13 contacts x ø 1 mm + 4 contacts ø 2,4 mm







## Identification of the contacts on the solder side

- Male panel connector / Male cable connector
- Female panel connector / Female cable connector
- contact ø 1 mm
- contact ø 2,4 mm

JAEGER
CONNECTEURS

# Contact arrangement

## Neptunox Series

**Housing 00**
7 x ø 0,76 mm

**Housing 0**
8 x ø 0,76 mm

**Housing 0**
12 x ø 0,76 mm

**Housing 0**
19 x ø 0,76 mm

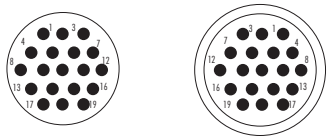
**Housing 00**
3 x ø 1 mm

**Housing 00**
4 x ø 1 mm

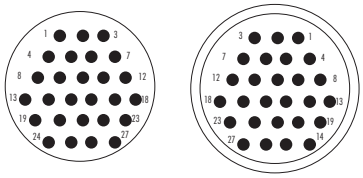
**Housing 0**
7 x ø 1 mm

**Housing 1**
12 x ø 1 mm

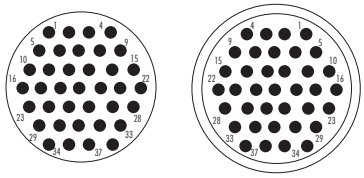
**Housing 1**
19 x ø 1 mm



**Housing 2**
27 x ø 1 mm



**Housing 2**
37 x ø 1 mm



## Identification of the contacts on the solder, crimp side

○ Male panel connector
Male cable connector

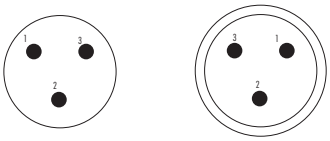
◎ Female panel connector
Female cable connector

• contact ø 0,76 mm

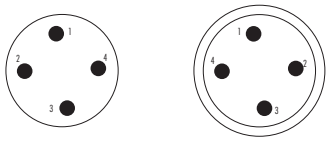
● contact ø 1 mm

## Neptunox Series

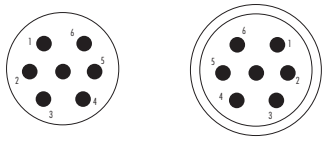
**Housing 1**
3 x ø 1,6 mm



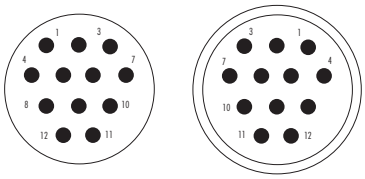
**Housing 1**
4 x ø 1,6 mm



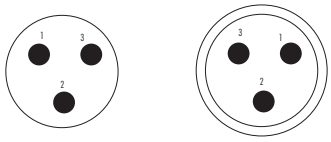
**Housing 1**
7 x ø 1,6 mm



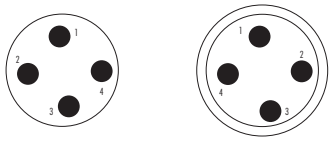
**Housing 2**
12 x ø 1,6 mm



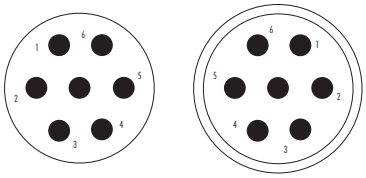
**Housing 1**
3 x ø 2,4 mm



**Housing 1**
4 x ø 2,4 mm



**Housing 2**
7 x ø 2,4 mm



## Identification of the contacts on the solder, crimp side

- ○ Male panel connector / Male cable connector
- ◎ Female panel connector / Female cable connector
- ● contact ø 1,6 mm
- ● contact ø 2,4 mm

# Assembly – Standard and Rapid Series

## Panel connector

**There are two possible combinations.**
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

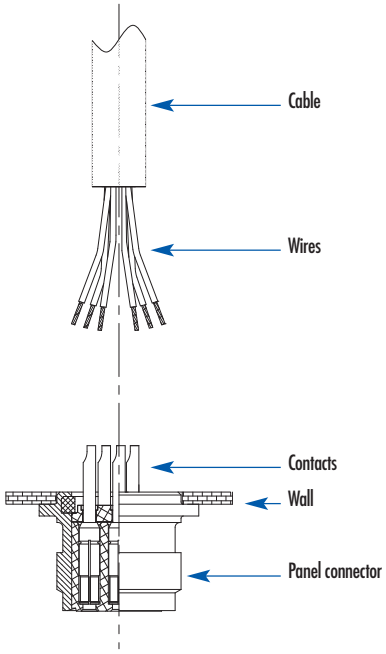
Ensure the parts are mounted the right way round as shown in the diagrams.

**Non-removable contacts**
- Identification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert.

1.
Remove the sheath* from the cables and strip* the wires.

2.
Take the rear of the panel connector and solder* each stripped wire to its contact, according to your wiring diagram.

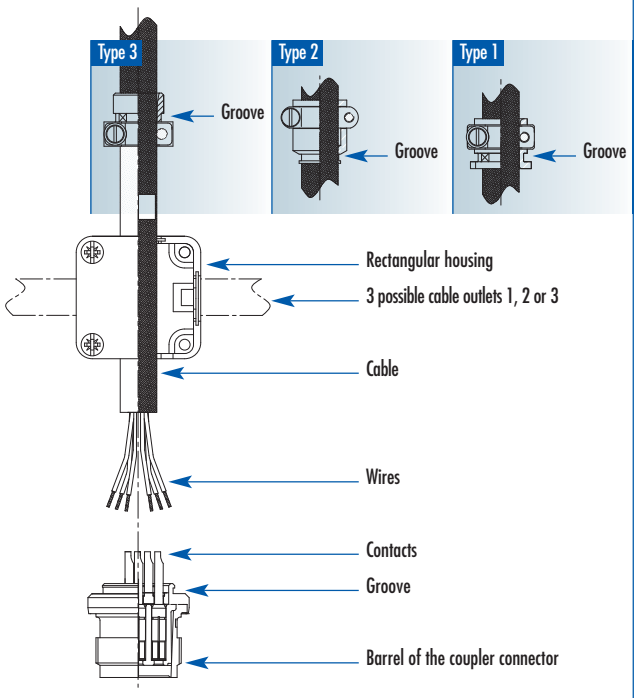
* For further information, refer to the „Wiring“ document.




## Coupler connector

**For assembly, refer to the Connector part opposite**

**Choice of 3 types of cable clamp**



## Cable connector

### Choice of 3 types of cable clamp

1.
Unscrew the 4 screws and open the two half-shells of the housing.
Separate the parts.

(2 half-shells and a cable connector barrel).

2.
Slide the cable into the cable clamp.

3.
Remove the sheath* from the cables and strip* the wires.

4.
Take the rear of the cable connector barrel and solder* each stripped wire to its contact, according to your wiring diagram.

5.
Take a half-shell and place the groove of the cable connector barrel and the groove of the cable clamp into it in their respective seatings as shown in diagram 1 tighten the 2 screws on the cable clamp.

6.
Then close the assembly with the other half-shell, using the 4 screws.

* For further information, refer to the „Wiring" document.

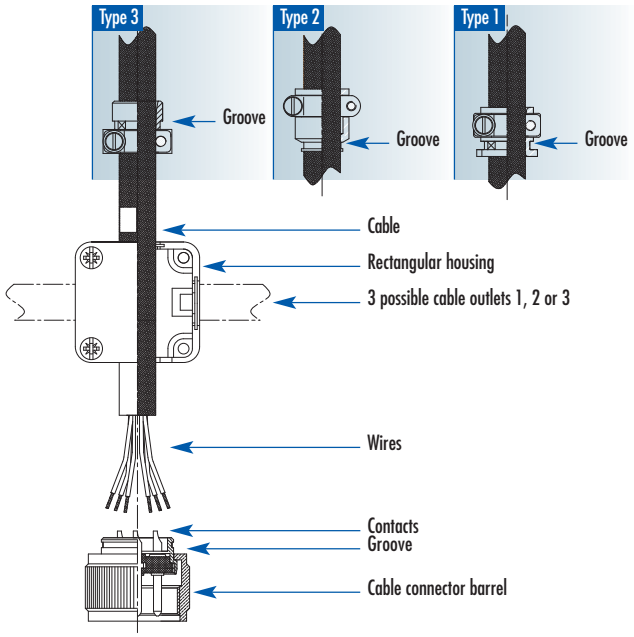
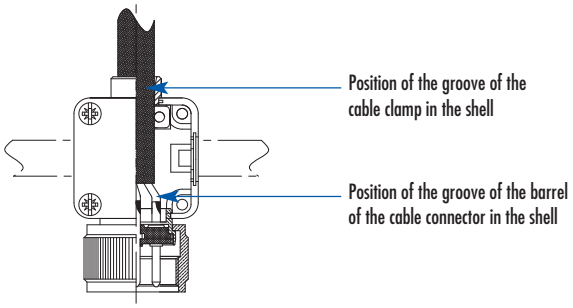



Diagram 2



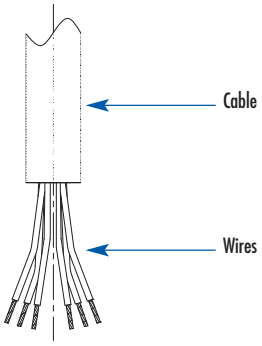
# Assembly – Waterproof, Waterproof High-Performance and PG outlet Series

## Panel connector

**There are two possible combinations.**
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

Ensure the parts are mounted the right way round as shown in the diagrams.

**Non-removable contacts**
- Identification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert. For further information, refer to the „Contact arrangement“ document.

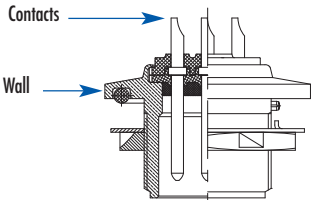



1.
Remove the sheath* from the cables and strip* the wires.

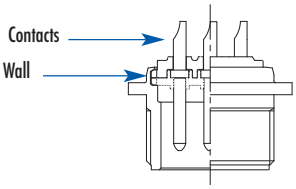
2.
Take the rear of the panel connector and solder* each stripped wire to its contact, according to your wiring diagram.

* For further information, refer to the „Wiring“ document.

Round panel connector

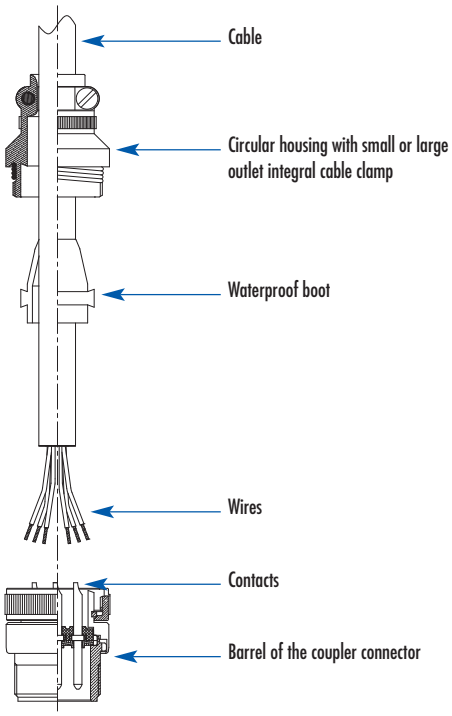



Square panel connector




## Coupler connector

**For assembly, refer to the connector part (Standard Waterproof) opposite**



## Cable connector

### Standard Waterproof

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the circular housing with its integral cable clamp, followed by the waterproof boot.

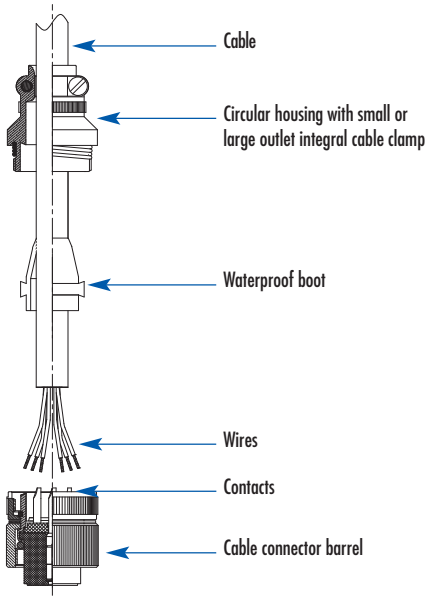
3.
Remove the sheath* from the cables and strip* the wires.

4.
Take the rear of the cable connector barrel and solder* each stripped wire to its contact, according to your wiring diagram.

5.
Next fit the waterproof boot inside the circular housing.
Then screw the assembly onto the barrel of the cable connector.

6.
Tighten the 2 screws on the cable clamp.

* For further information, refer to the „Wiring" document.

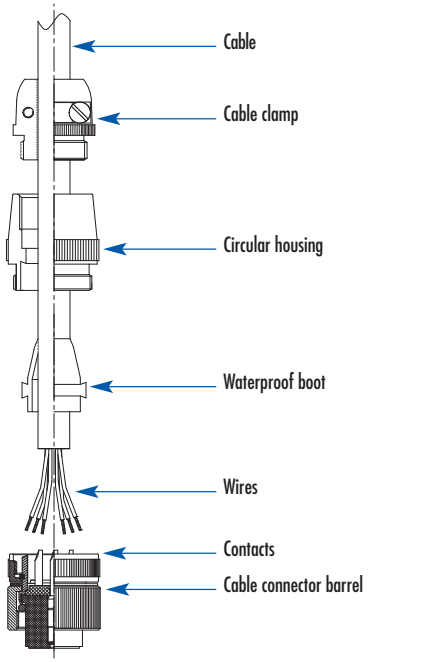



### Waterproof High-Performance Cable Gland and PG outlet

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the circular housing with its integral cable clamp, followed by the waterproof boot.

3., 4., 5. and 6. refer to instructions 3., 4., 5. and 6. above.



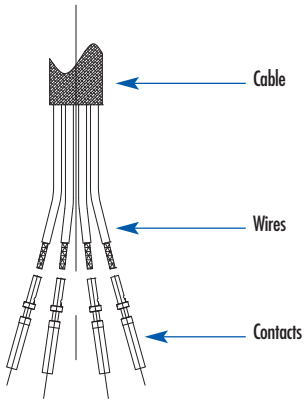
# Assembly – Miniature Push-Pull Series

## Panel connector

**There are two possible combinations.**
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

Ensure the parts are mounted the right way round as shown in the diagrams.

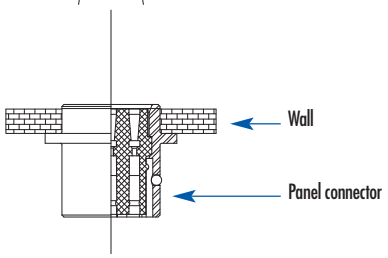
**Removable contacts**
All the contacts must be mounted in the insert.
- Dentification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert. For further information, refer to the „Contact arrangement“ document.




1.
Remove the sheath* from the cables and strip* the wires.

2.
Solder* or crimp each stripped wire onto its contact.

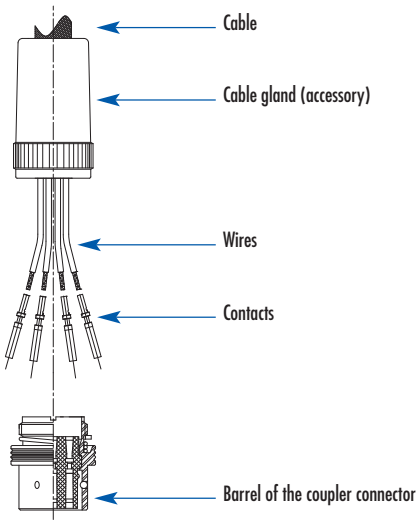
3.
Then take the rear of the panel connector and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.




* For further information, refer to the „Wiring“ document

## Coupler connector

**For assembly, refer to the Connector part opposite**



## Cable connector

### Connection accessories Choice of 3 couplings:

### Cable gland

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the cable gland coupling, followed by the claw, the cable gland seal and the seal holder.

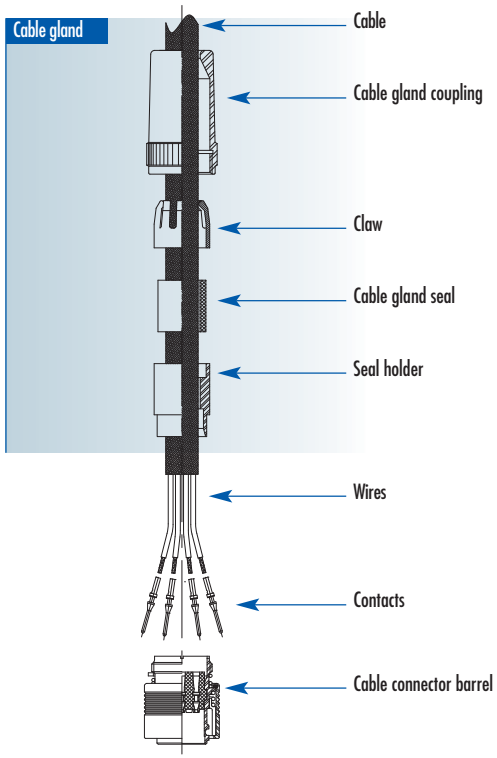
3.
Remove the sheath* from the cables and strip* the wires.

4.
Solder* or crimp each stripped wire onto its contact.

5.
Then take the rear of the cable connector barrel and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

6.
Next join all the parts of the connection accessory together.
Then screw the assembly onto the barrel of the cable connector.

* For further information, refer to the „Wiring" document.



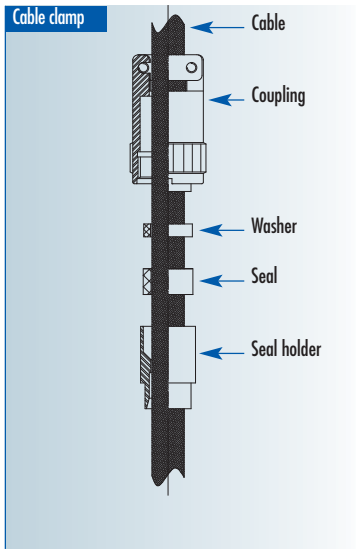

### Cable clamp

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the coupling, followed by the washer, the seal and the seal holder.

3.
3., 4., 5. and 6. refer to instructions 3., 4., 5. and 6. above.

7.
Tighten the screws on the cable clamp.

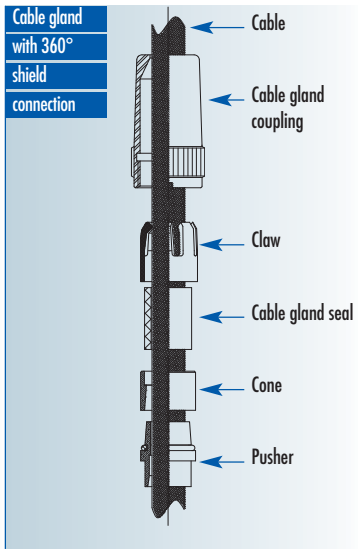



### Cable gland with 360° shield connection

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the circular housing with its integral cable clamp, followed by the waterproof boot.

3., 4., 5. and 6. refer to instructions 3., 4., 5. and 6. above.



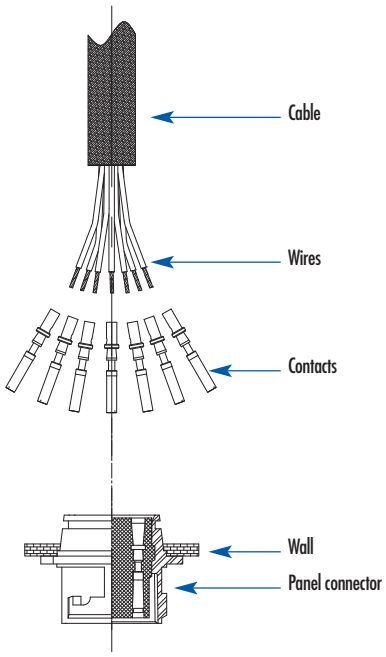
# Assembly – Miniature and Industrial Series

## Panel connector

**There are two possible combinations.**
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

Ensure the parts are mounted the right way round as shown in the diagrams.

**Removable contacts**
All the contacts must be mounted in the insert.
- Dentification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert. For further information, refer to the „Contact arrangement“ document.




1.
Remove the sheath* from the cables and strip* the wires.

2.
Solder* or crimp each stripped wire onto its contact.

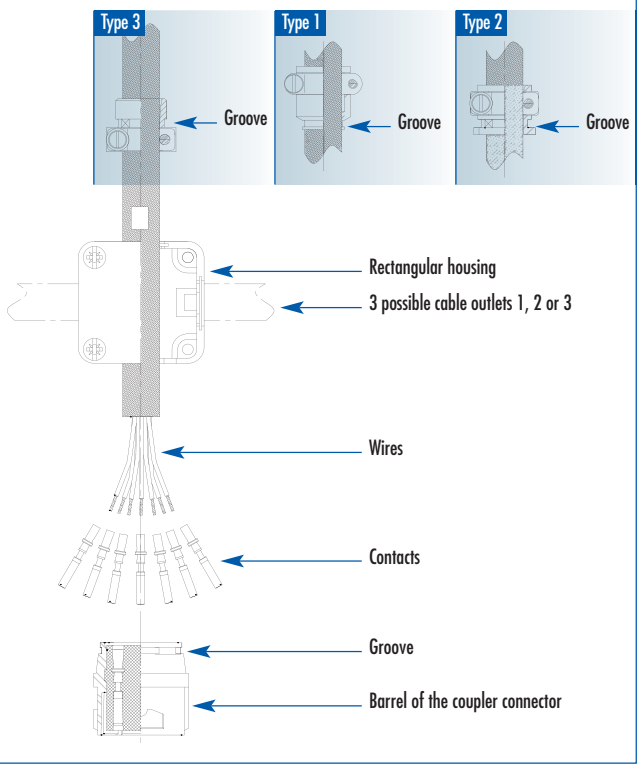
3.
Then take the rear of the panel connector and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

* For further information, refer to the „Wiring“ document.

## Coupler connector

**For assembly, refer to the Connector part opposite**

**Choice of 3 types of cable clamp (accessory)**
(for further information, refer to the „Cable clamp“ document)



## Cable connector

**Choice of 3 types of cable clamp (accessory)**
(for further information, refer to the „Cable clamp" document)

**Cable gland**

1.
Unscrew the screws and open the two half-shells of the housing.
Separate the parts.

(2 half-shells and a cable connector barrel).

2.
Slide the cable into the cable clamp.

3.
Remove the sheath* from the cables and strip* the wires.

4.
Solder* or crimp each stripped wire onto its contact.

5.
Then take the rear of the cable connector barrel and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

6.
Take a half-shell and place the groove of the cable clamp and the groove of the able connector barrel into it, in their respective seatings according to diagram 1.
Tighten the screws on the cable clamp.

7.
Then close the assembly with the other half-shell, using the 4 screws.

* For further information, refer to the „Wiring" document.

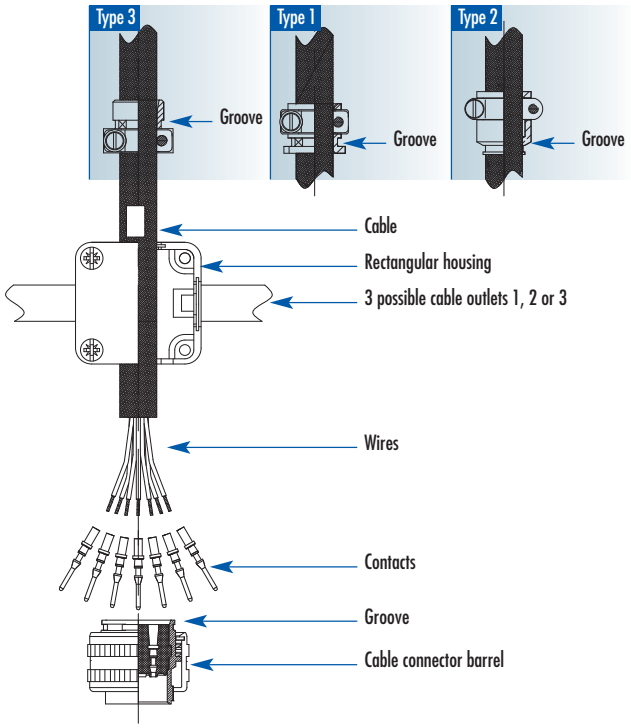
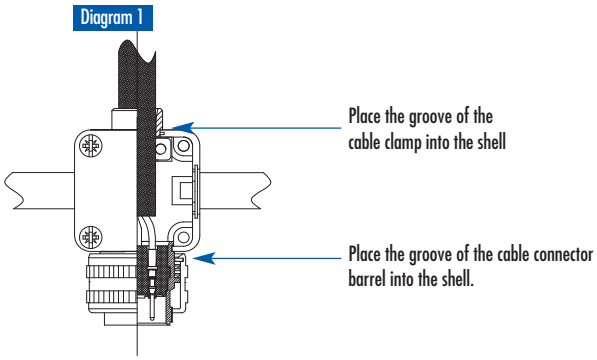



Diagram 1



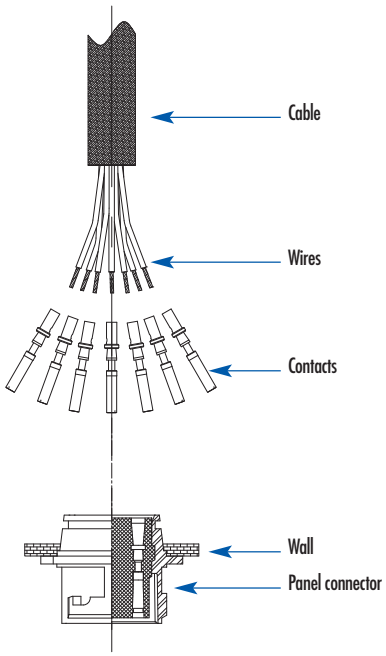
# Assembly – Waterproof Miniature and Industrial Waterproof Series

## Panel connector

**There are two possible combinations.**
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

Ensure the parts are mounted the right way round as shown in the diagrams.

**Removable contacts**
All the contacts must be mounted in the insert.
- Identification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert.
  For further information, refer to the „Contact arrangement“ document.




1.
Remove the sheath* from the cables and strip* the wires.

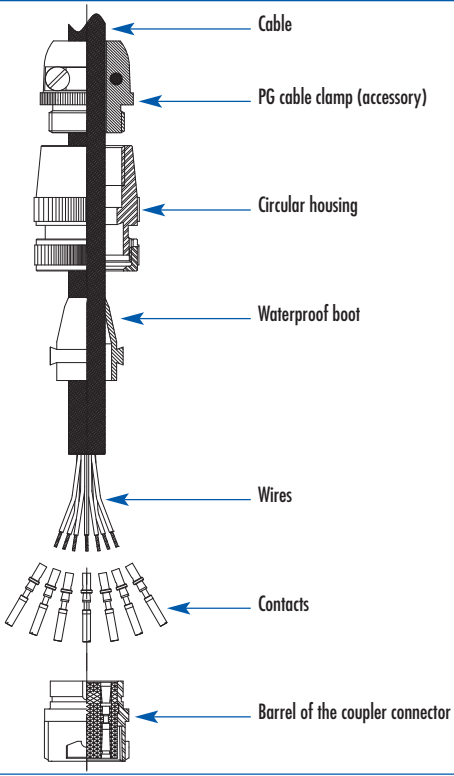
2.
Solder* or crimp each stripped wire onto its contact.

3.
Then take the rear of the panel connector and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

* For further information, refer to the „Wiring“ document.

## Coupler connector

**For assembly, refer to the Connector part opposite**



## Cable connector

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the cable clamp, followed by the circular housing and the waterproof boot.

3.
Remove the sheath* from the cables and strip* the wires.

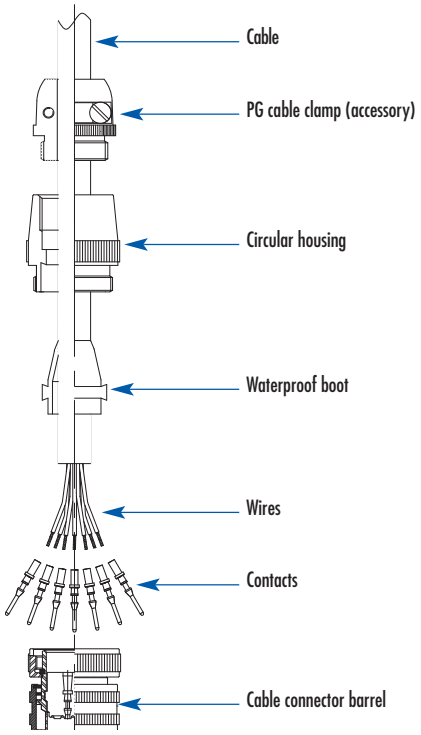
4.
Solder* or crimp each stripped wire onto its contact.

5.
Then take the rear of the cable connector barrel and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

6.
Next fit the waterproof boot inside the circular housing.
Then screw the assembly onto the barrel of the cable connector.

7.
Tighten the screws on the cable clamp.

* For further information, refer to the „Wiring“ document.



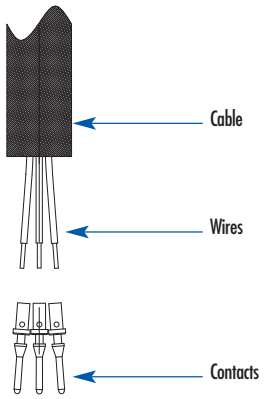
# Assembly – Marine Series

## Panel connector

**There are two possible combinations.**
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

Ensure the parts are mounted the right way round as shown in the diagrams.

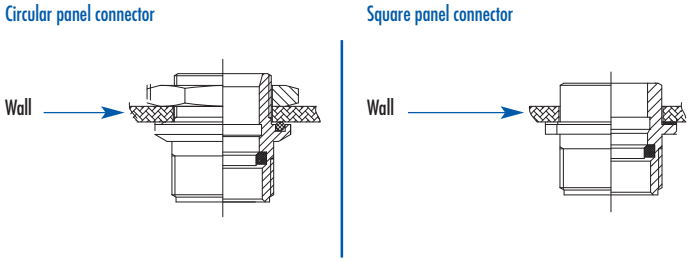
**Removable contacts**
All the contacts must be mounted in the insert.
- Identification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert. For further information, refer to the „Contact arrangement“ document.




1.
Remove the sheath* from the cables and strip* the wires.

2.
Solder* or crimp each stripped wire onto its contact.

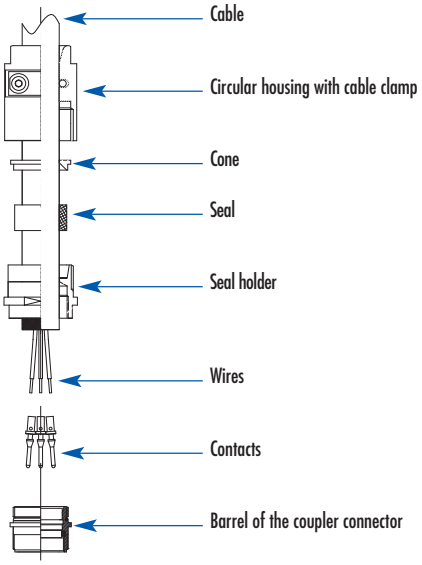
3.
Then take the rear of the panel connector and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.




* For further information, refer to the „Wiring“ document.

## Coupler connector

**For assembly, refer to the Connector part opposite**



## Cable connector

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the cable clamp, followed by the cone, the seal and the seal holder

3.
Remove the sheath* from the cables and strip* the wires.

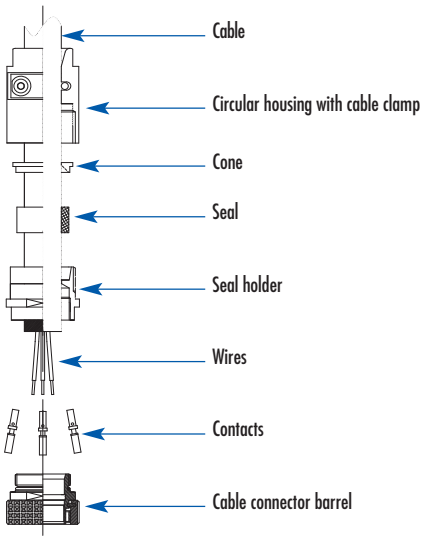
4.
Solder* or crimp each stripped wire onto its contact.

5.
Then take the rear of the cable connector barrel and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

6.
Next add the cone followed by the seal and the seal holder in the circular housing with the cable clamp incorporated. Then screw the assembly onto the barrel of the cable connector.

7.
Tighten the screws on the cable clamp.

* For further information, refer to the „Wiring" document.

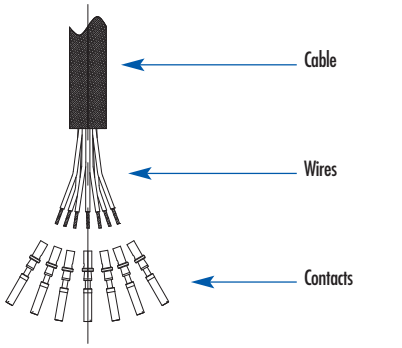


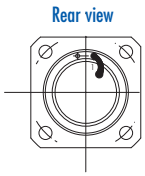
## Panel connector

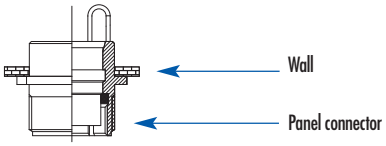
**There are two possible combinations.**
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

Ensure the parts are mounted the right way round as shown in the diagrams.

**Removable contacts**
All the contacts must be mounted in the insert.
- Identification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert. For further information, refer to the „Contact arrangement“ document.




1.
Remove the sheath* from the cables and strip* the wires.

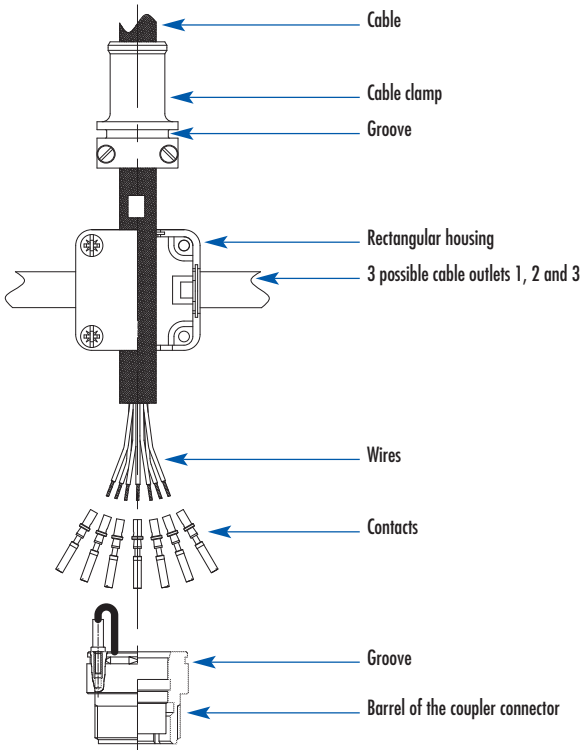
2.
Solder* or crimp each stripped wire onto its contact.

3.
Then take the rear of the panel connector and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

* For further information, refer to the „Wiring“ document.

## Coupler connector

**For assembly, refer to the Connector part opposite**



## Cable connector

1.
Unscrew the screws and open the two half-shells of the housing.
Separate the parts.

(2 half-shells and a cable connector barrel).

2.
Slide the cable into the cable clamp.

3.
Remove the sheath* from the cables and strip* the wires.

4.
Solder* or crimp each stripped wire onto its contact.

5.
Then take the rear of the cable connector barrel and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

6.
Take a half-shell and place the groove of the cable clamp and the groove of the cable connector barrel into it, in their respective seatings according to diagram 1. Tighten the screws on the cable clamp.

7.
Then close the assembly with the other half-shell, using the 4 screws.

* For further information, refer to the „Wiring" document.

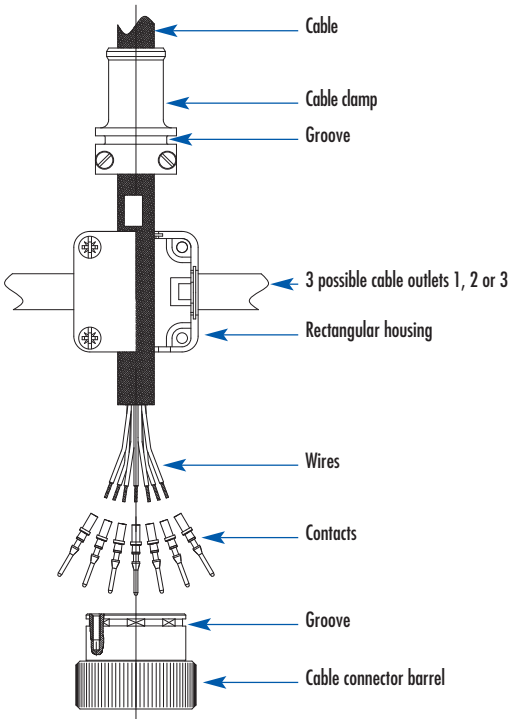
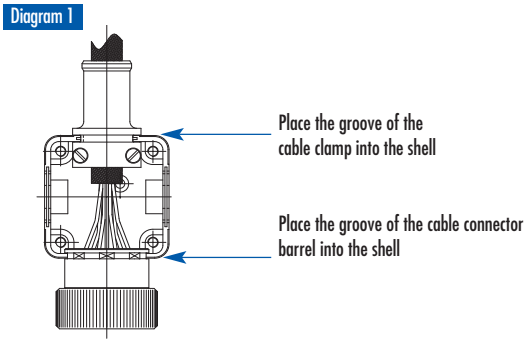



Diagram 1



# Assembly – Robotic with 17 mixed contacts

## Panel connector

**There are two possible combinations.**

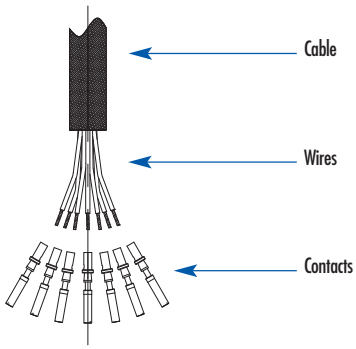
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

Ensure the parts are mounted the right way round as shown in the diagrams.

**Removable contacts**

All the contacts must be mounted in the insert.

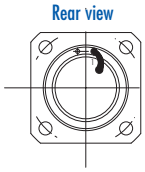
- Identification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert. For further information, refer to the „Contact arrangement“ document.

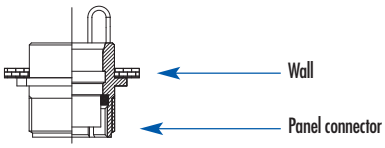



1.
Remove the sheath* from the cables and strip* the wires.

2.
Solder* or crimp each stripped wire onto its contact.

3.
Then take the rear of the panel connector and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.




* For further information, refer to the „Wiring“ document.

## Coupler connector

**For assembly, refer to the Connector part opposite**

## Cable connector

### Diagram 1

1.
Unscrew the screws and open the two half-shells of the housing.
Then separate the parts.

(2 half-shells and a cable connector barrel).

2.
Slide the cable into the cable clamp, the pressure washer,
the thermo-adhesive sheath and the boot.

3.
Solder* or crimp each stripped wire onto its contact. Then take the rear of the cable connector barrel and insert the wired contacts into the insert using the insertion tool, according to your wiring diagram.

* For further information, refer to the „Wiring“ document.

### Diagram 2

4.
Install the boot at the rear of the cable connector barrel. Place the toothed washer initially between the pressure washer and the boot (required for the ground connection).

### Diagram 3

5.
Fit the 4 screws starting by the one linked to the toothed washer (screw A).
Fully tighten the 4 screws on the pressure washer.

### Diagram 4

6.
Place the thermo-adhesive sheath on the boot/cable. Stretch the thermo-adhesive sheath on the boot and the cable conduit, taking care to heat the thermo-adhesive sheath evenly to ±100 °C in order to completely liquefy the adhesive.

### Diagram 5

7.
Take a half-shell and place the groove of the cable clamp and the groove of the cable connector barrel into it, in their respective seatings.
Tighten the screws on the cable clamp. Then close the assembly with the other half-shell, using the 4 screws.

Diagram 1

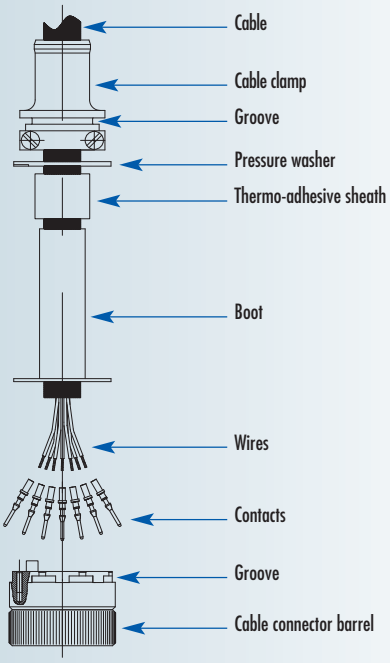



Diagram 2

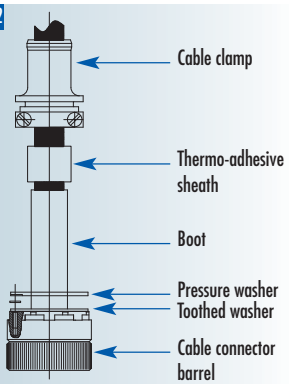



Diagram 3

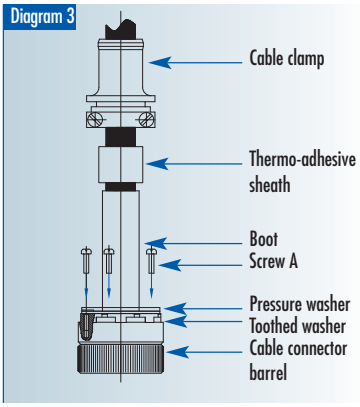



Diagram 4

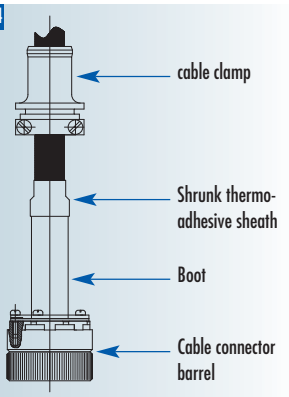
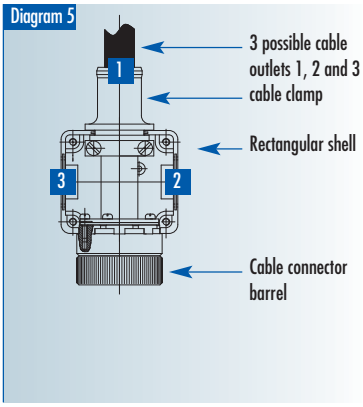



Diagram 5



# Assembly – Minex Series

## Panel connector

**There are two possible combinations.**

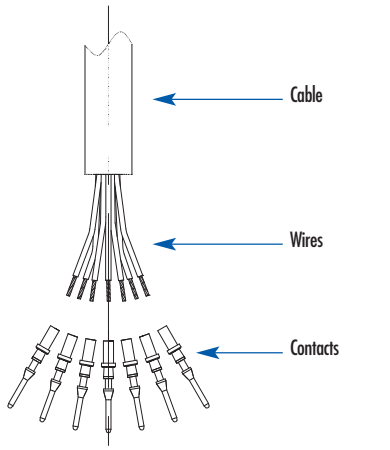
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

Ensure the parts are mounted the right way round as shown in the diagrams.

**Removable contacts**

All the contacts must be mounted in the insert.

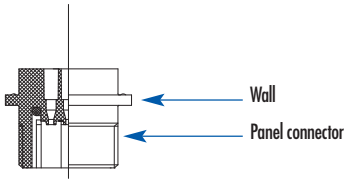
- Identification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert. For further information, refer to the „Contact arrangement" document.




1.
Remove the sheath* from the cables and strip* the wires.

2.
Solder* or crimp each stripped wire onto its contact.

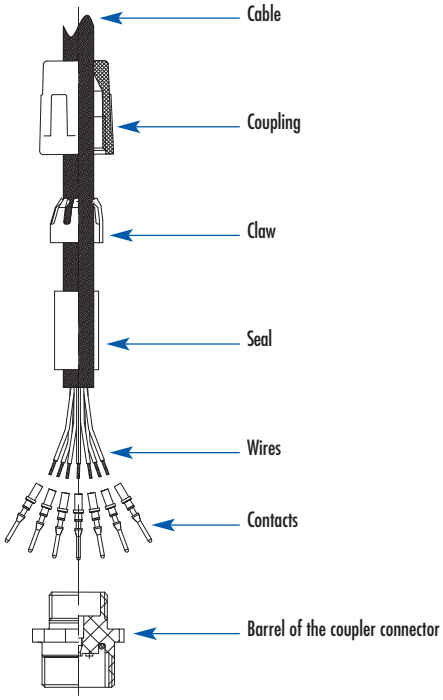
3.
Then take the rear of the panel connector and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.




* For further information, refer to the „Wiring" document.

## Coupler connector

**For assembly, refer to the Connector part opposite**



## Cable connector

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the coupling, followed by the claw and the seal.

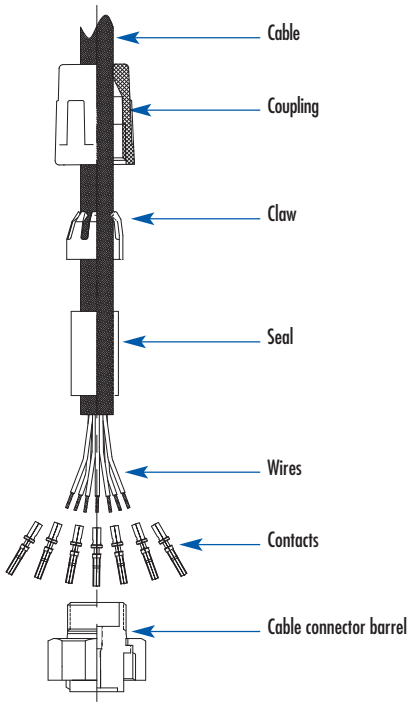
3.
Remove the sheath* from the cables and strip* the wires.

4.
Solder* or crimp each stripped wire onto its contact.

5.
Then take the rear of the cable connector barrel and insert* the wired contacts into the insert using the insertion tool*, according to your wiring diagram.

6.
Next add the claw followed by the seal in the coupling.
Then screw the assembly with the barrel of the cable connector.

* For further information, refer to the „Wiring" document.



# Assembly – Power Series Puissance

## Panel connector

**There are two possible combinations.**
- A panel connector and cable connector assembly
- A coupler connector and cable connector assembly.

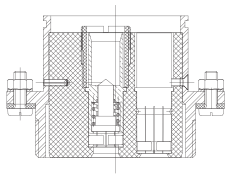
Ensure the parts are mounted the right way round as shown in the diagrams.

**Removable contacts**
All the contacts must be mounted in the insert.
- Identification of the contacts by numbers on both sides of the panel connector, the cable connector or the coupler connector insert. For further information, refer to the „Contact arrangement“ document.

1.
Remove the sheath* from the cable and slide each wire into its bushing. Strip* the wires.

2.
Crimp* each stripped wire to its contact.

3.
Then take the rear of the panel connector and insert the wired contacts into the insert, according to your wiring diagram. Then insert the bushings, screwing them up using the specific tool*.

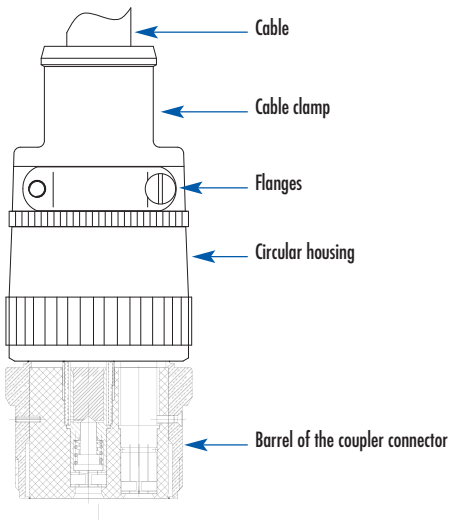


Panel connector

* For further information, refer to the „Wiring“ document.

## Coupler connector

**For assembly, refer to the Connector part opposite**



## Cable connector

1.
Unscrew all the parts of the cable connector.

2.
Slide the cable into the cable gland with the flanges loosened, followed by the straight coupling, the friction washer and the nut.

3.
Remove the sheath* from the cable and slide each wire into its bushing. Strip* the wires.

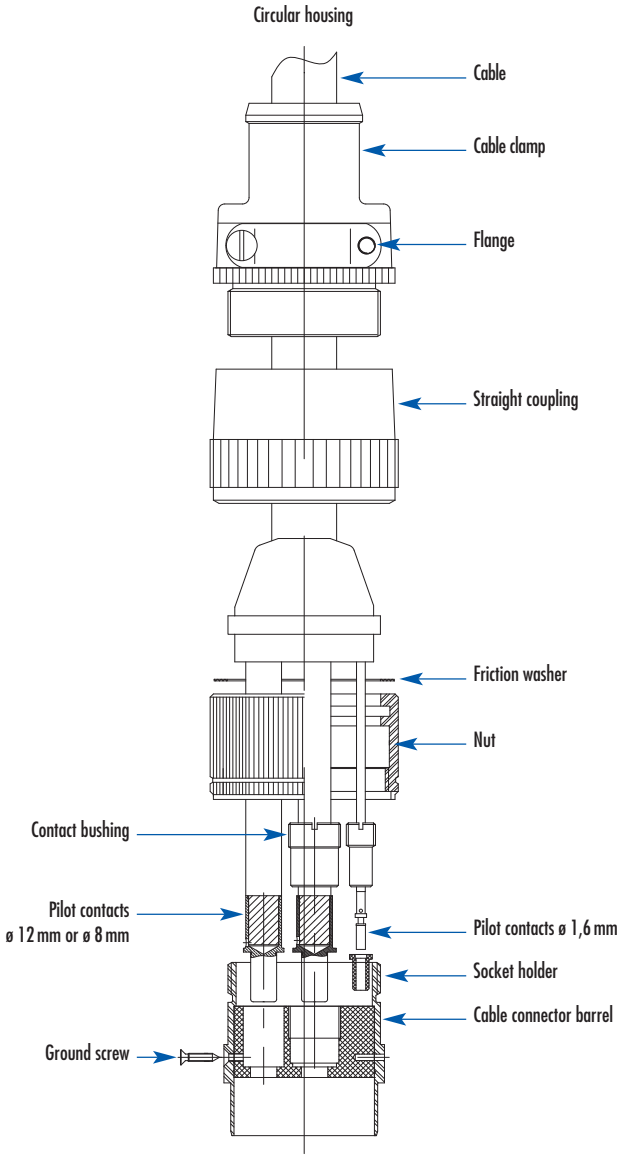
4.
Crimp* each stripped wire to its contact.

5.
Then take the rear of the cable connector barrel and insert* the wired contacts into the insert, according to your wiring diagram. Then insert the bushings, screwing them up using the specific tool*.
- Place the ground contact in its seating, taking care to position the hole of contact „X" in line with the hole „S" of the cable connector barrel. Attach the ground contact with the ground screw.
- For cable connectors with male contacts, only on the pilot contacts, first insert the socket holders, then the wired pilot contacts and finish with the bushings.

6.
Add the nut and the friction washer and the straight coupling and screw the assembly to the cable connector barrel.

7.
Screw the cable clamp onto the straight coupling. Tighten the screws on the cable clamp. Apply weak threadlock on the threaded part of the cable clamp.

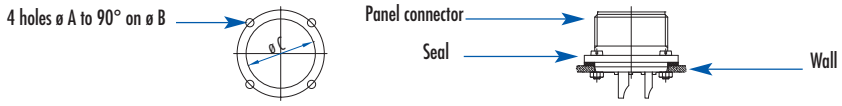
* For further information, refer to the „Wiring" document.



# Attachment of panel connectors to a wall

## Square and circular panel connectors for the Standard, Rapid, Waterproof, Miniature, Industrial, Marine, Neptunox and Robotic Series

| Housing | ø A | ø B | ø C |
|---|---|---|---|
| 1 | 3,2 | 28 | 21,2 |
| 2 | 3,2 | 34 | 27,2 |
| 3 | 4,2 | 48 | 39,2 |
| 4 | 4,2 | 54 | 45,2 |
| 5 | 4,2 | 62 | 52,2 |




After drilling the holes in the wall (hole ø C and 4 holes ø A), place the gasket* followed by the panel connector against the wall. Screw up using the 4 screws and nuts**.
The assembly is sealed by crushing the gasket between the wall and the panel connector.
*Gaskets under panel connector (not supplied with the panel connector), see: Accessories.
**Attachment of the square panel connector by 4 screws and nuts (not supplied with the panel connector), see: Accessories.
Housings B1 and B2: 4 screws and M3 nuts
Housings B3, B4 and B5: 4 screws and M4 nuts

## Circular panel connectors: attachment by locknuts Standard, Waterproof and Hermetic Series

The cutting out of the supporting wall, as shown below, may be different depending on the thickness of the wall.

| Housing | ø M | ø N min. | ø O | P | Q | R |
|---|---|---|---|---|---|---|
| 1 | 21,1 | 34 | M21 | 2,5 | 24,9 | 23 |
| 2 | 27,1 | 40 | M27 | 2,5 | 30,9 | 29 |
| 3 | 39,1 | 56,2 | M39 | 2 | 41,4 | 40,2 |
| 4 | 45,1 | 62,2 | Tr45 | 1,6 | 47,4 | 46,2 |
| 5 | 52,1 | 69,2 | Tr52 | 2,1 | 54,4 | 53,2 |

Diagram 1: Thickness of the wall between 2 and 4 mm

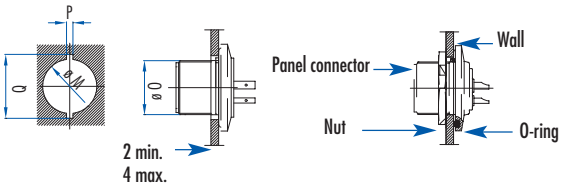
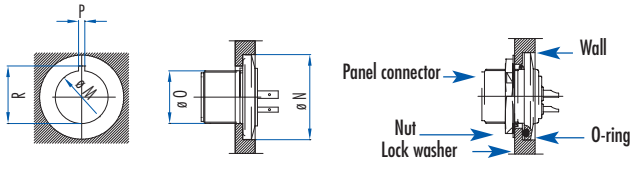



Diagram 2: Thickness of the wall greater than 4 mm




After drilling the holes in the wall, fit the O-ring in the groove on the collar of the panel connector. Then fit the panel connector, the lock washer and finally the nut.
The assembly is sealed by crushing the gasket between the wall and the panel connector.

## Bulkhead connector for Hermetic Series

The cutting out of the supporting wall, as shown below, may be different depending on the thickness of the wall.

| Thickness of the wall | B 1 | | B 2 | | B 3 | B 4 | B 5 |
|---|---|---|---|---|---|---|---|
| | Diagram 1 | Diagram 2 | Diagram 1 | Diagram 2 | Diagram 2 | Diagram 2 | Diagram 2 |
| | 2 to 3 | 3 to 10 | 2 to 3 | 3 to 10 | 2 to 10 | 2 to 10 | 2 to 10 |
| A | ø 21 | | ø 27 | | ø 39,5 | ø 45,5 | ø 52,5 |
| B | 2,5 | | 2,5 | | 2,5 | 2,5 | 2,5 |
| C | 12,5 | | 15,5 | | 20,7 | 23,7 | 27,2 |

Diagram 1: Thickness of the wall between 2 and 10 mm

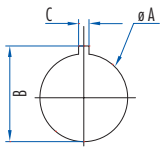
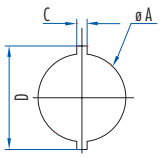
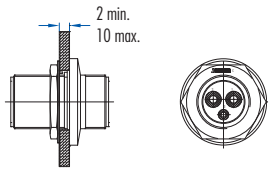



Diagram 2: Thickness of the wall greater than 10 mm



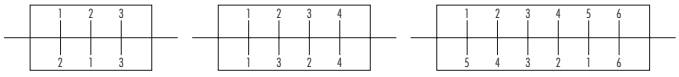

Bulkhead connector



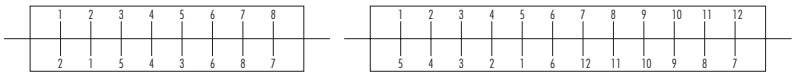

After drilling the holes in the wall, fit the O-ring in the groove on the collar of the bulkhead connector. Then fit the bulkhead connector, the lock washer and finally the nut.
The assembly is sealed by crushing the gasket between the wall and the bulkhead connector.

As the bulkhead connector is fitted with male contacts on both sides, the identification of the same conductor is different in the two female cable connectors mated to this connector.
See the table of equivalences below.

**Housing 1**
3-4-6 contacts




**Housing 2**
8-12 contacts

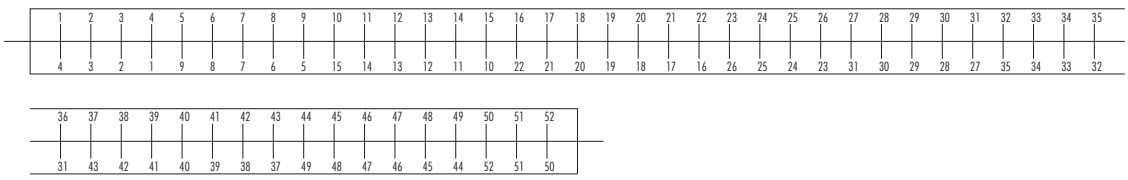



**Housing 3**
17 contacts


**Housing 4**
25 contacts


**Housing 5**
35 contacts


**Housing 5**
55 contacts



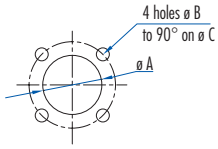
JAEGER
CONNECTEURS

# Attachment of panel connectors to a wall / Example of Cable clamp assembly

## Push-Pull Series panel connectors

| Housing | Number of Contacts | | Square panel connector | | | Circular panel connector | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | ø A | ø B | ø C | ø A | B | C | D |
| 00 | ø 1 mm | 3 - 4 | 12,3 | 2,7 | 18 | 12,7 | 13,6 | 3 | 11,6 |
| 0 | ø 1 mm | 7 | 15,3 | 2,7 | 21 | 16,2 | 17,1 | 3 | 15,1 |
| 1 | ø 1 mm | 12 - 19 | 21,9 | 3,2 | 28 | 21,2 | 23 | 2,5 | 20,1 |
| 1 | ø 1,6 mm | 3 - 4 - 7 | 21,9 | 3,2 | 28 | 21,2 | 23 | 2,5 | 20,1 |
| 1 | ø 2,4 mm | 3 - 4 | 21,9 | 3,2 | 28 | 21,2 | 23 | 2,5 | 20,1 |

Square panel connector




Circular panel connector: the panel connectors have the following two types of anti-rotation systems:

Diagram 1: Orientation using the tab on the lock washer.

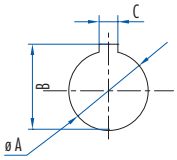
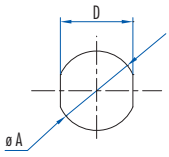


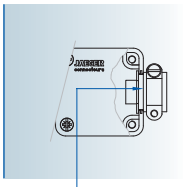

Diagram 2: Orientation using the flat sides on the panel connector barrel.




## Standard, Rapid and Waterproof Series

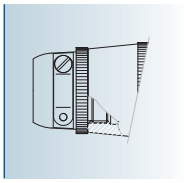
**Assembly: Rectangular connectors (example)**

1. Open the two half-shells by unscrewing the 4 screws.
   Separate the parts.
   (2 half-shells and a cable connector barrel).
2. Slide the cable into the cable clamp.
3. Take the rear of the cable connector barrel and solder the wires to the corresponding contacts, according to your wiring diagram.
   (For further information, refer to the „Wiring" document).
4. Take a half-shell. Place the groove of the cable connector barrel and the groove of the cable clamp into it in their respective seatings.
   See diagram above. Tighten the 2 screws on the cable clamp.
5. Then close the assembly with the other half-shell, using the 4 screws.



Place the groove of the cable clamp into the shell

**Assembly: Circular connectors (example)**



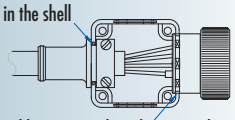
1. Separate by unscrewing the barrel of the cable connector from its body.
2. Slide the cable into the cable clamp, then into the body of the cable connector.
3. Take the rear of the cable connector barrel and solder the wires to the corresponding contacts, according to your wiring diagram.
   (For further information, refer to the „Wiring" document).
4. Assemble the barrel of the cable connector with its body, then assemble the cable clamp.
   Tighten the 2 screws on the cable clamp.

## Miniature Push-Pull and Robotic Series

**Assembly: (example: Robotic Series)**

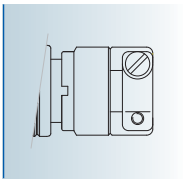
1. Open the two half-shells by unscrewing the screws.
   Then separate the parts.
   (2 half-shells and a cable connector barrel).
2. Slide the cable into the cable clamp.
3. Solder or crimp the wires in the corresponding contacts
   (For further information, refer to the „Wiring" document).
   Then, for connectors with removable contacts, take the cable connector barrel.
   Insert the wired contacts into the insert, according to your wiring diagram.
4. Take a half-shell and place the groove of the cable clamp and the groove of the cable connector barrel into it, in their respective seatings.
   See the diagram opposite. Tighten the screws on the cable clamp.
5. Then close the assembly with the other half-shell, using the screws.

Position of the groove of the cable clamp in the shell



Cable connector barrel positioned in the shell

**Assembly: Circular connectors (example)**



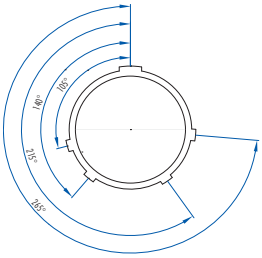
1. Separate by unscrewing the barrel of the cable connector from its body.
2. Slide the cable into the cable clamp, then into the body of the cable connector.
3. Take the rear of the cable connector barrel and solder the wires to the corresponding contacts, according to your wiring diagram.
   (For further information, refer to the „Wiring" document).
4. Assemble the barrel of the cable connector with its body, then assemble the cable clamp. Tighten the screws on the cable clamp.

## For the Miniature, Industrial, Marine and Robotic series

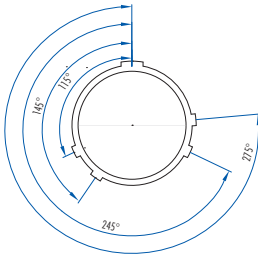
Each series is fitted with a polarisation system. This system ensures that when connecting, the correct cable connector is connected to the corresponding panel connector and that the contacts are correctly mated. 3 other polarisation systems are available to prevent mismating between identical connectors (same series and same contact arrangement, see explanation below). This ensures that the correct cable connector is connected to the panel connector corresponding to it.

Polarisation is provided by:
- either the position of the secondary keys in relation to the main key.
- or by the rotation of the insert in the housing (this rotation is performed in a clockwise direction for male connectors and anti-clockwise for female connectors).

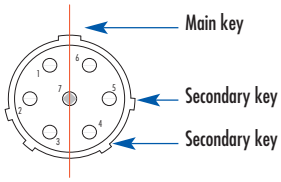
**Keying type A:**
Panel connector / Coupler connector



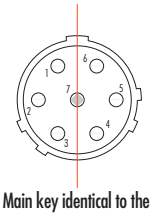

**Keying type B:**
Panel connector / Coupler connector




**„Normal" Type**
Panel connector / Coupler connector / Female

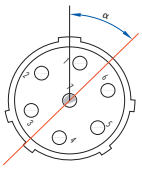



**Type „03"**
Panel connector / Coupler connector / Female



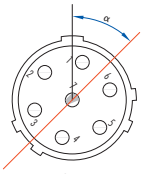
Main key identical to the „normal" type, angular offset of the secondary keys

**Type „02"**
Panel connector / Coupler connector / Female



Rotation of the insert in relation to the „normal" type

**Type „04"**
Panel connector / Coupler connector / Female



Rotation of the insert in relation to type „03"

α = 30° for connectors with 7 and 19 contacts  α = 45° for connectors with 4 contacts  α = 60° for connectors with 3, 12 and 27 contacts

To order types „02", „03" or „04", use the part numbers of our chosen „NORMAL" type connector, modifying it according to the model below.
Model: Male panel connector, part number: 630 603 006 „NORMAL" type
becomes 630 603 026 for a „02" type
becomes 630 603 036 for a „03" type
becomes 630 603 046 for a „04" type

To facilitate identification of the connectors when wiring and locking, the barrels of the panel connector, coupler connector and the locking ring are identified by the number corresponding to the type of polarisation selected: type 02, 03 or 04.

N.B. The protective cap for the cable connector is different for keying type A and keying type B. Consult us.

# Wiring – Conductor stripping

## Standard, Rapid and Waterproof Series

**These non-removable contacts are to be soldered**

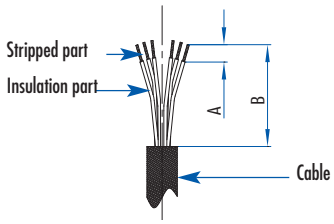
To avoid any error, the location of the contacts is identified by numbers on both sides of the panel connector, cable connector or coupler connector insert by numbers. For further information, refer to the „Contact arrangement" document.

1.
Remove the sheath from the cable over length B depending on the size of the housing (see table opposite).

| Housing | B: Sheath removed |
|---|---|
| 1 | 25 mm |
| 2 | 25 mm |
| 3 | 25 mm |
| 4 | 35 mm |
| 5 | 35 mm |

2.
Strip the wires over length A depending on the ø of the contacts (see table opposite). Before soldering, insert the stripped part of the wire into the shaft of the contact and ensure it is fully inserted and that the wire insulation is applied against the rear of the contact.

| ø Contact | A: Stripping length |
|---|---|
| 2 mm | 6 mm |
| 3 mm | 6 mm |
| 4 mm | 6 mm |




## Hermetic Series

**These non-removable contacts are to be soldered**

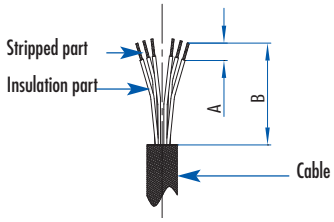
To avoid any error, the location of the contacts is identified by numbers on both sides of the panel connector and on both sides of the cable connector insert. For further information, refer to the „Contact arrangement" document.

1.
Remove the sheath from the cable over length B depending on the size of the housing of the panel connector and the cable connector (see table opposite).

| Housing | B: Sheath removed |
|---|---|
| 1 | 25 mm |
| 2 | 25 mm |
| 3 | 25 mm |
| 4 | 35 mm |
| 5 | 35 mm |

2.
Strip the wires over length A depending on the ø of the contacts (see table opposite). Before soldering, insert the stripped part of the wire into the shaft of the contact. Check it is fully inserted via the vent hole, and that the wire insulation is applied against the rear of the contact.

| ø Contact | A: Stripping length |
|---|---|
| 2 mm | 4,5 mm |
| 3 mm | 4,5 mm |
| 4 mm | 4,5 mm |



## Miniature, Atto and Natto Miniature Push-Pull, Industrial, Marine, Neptunox, Robotic and Minex Series

**These contacts are either to be soldered or crimped**

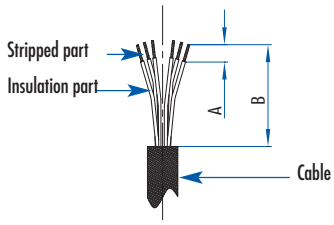
To avoid any error, the location of the contacts in the insert is identified by numbers.
For further information refer to the „Contact arrangement" document

| Housing | B: Sheath removed |
|---|---|
| 00 | 22 mm |
| 0 | 25 mm |
| 1 | 22 mm |
| 2 | 27 mm |
| 3 | 35 mm |

1.
Remove the sheath from the cable over length „B" depending on the size of the housing (see table opposite).

2.
Strip the wires over length „A" depending on the ø of the contacts (see table opposite).
Before soldering, insert the stripped part of the wire into the shaft of the contact.
Check it is fully inserted via the vent hole, and that the wire insulation is applied against the rear of the contact.

| ø Contact | A: Stripping length |
|---|---|
| 0,76 mm | 4 mm |
| 1 mm | 4 mm |
| 1,6 mm | 6 mm |
| 2,4 mm | 6 mm |




## Power Series Puissance

**These contacts are to be crimped**

To avoid any error, the location of the contacts in the insert is identified by numbers.
For further information refer to the „Contact arrangement" document

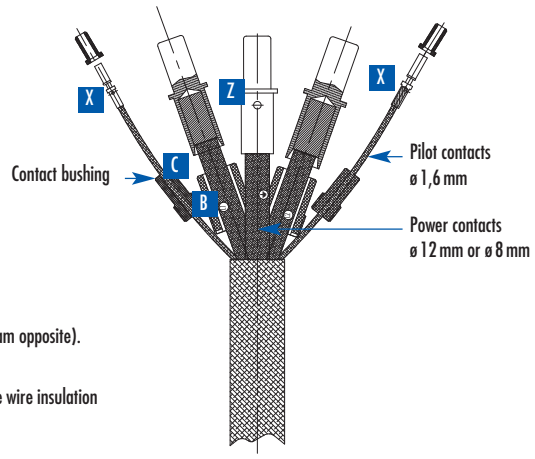
| Housing | B: Sheath removed |
|---|---|
| 5 | 80 mm |

1.
Remove the sheath from the cable over length „B" depending on the size of the housing (see table opposite).

| ø Contact | A: Stripping length |
|---|---|
| 12 mm | 23 mm |
| 8 mm | 14 mm |
| 1,6 mm | 6 mm |

2.
Wiring of „power" conductors ø 12mm or ø 8mm:
a) fit the bushings of the contacts marked „B" onto the wires L1, L2, making sure they are the right way round.
(see diagram opposite).
b) Strip the wires L1, L2 over length „A" depending on the ø of the contacts (see table opposite).
Before crimping, insert the stripped part of the wire into the shaft of the contact.
Check it is fully inserted via the vent hole „Z" and that the wire insulation is applied against the rear of the contact.

N.B. for cables of a smaller cross-section, remember to fit the reducer(s) in the contact shaft(s)




3.
Wiring of „pilot" conductors ø 1,6mm:
a) fit the bushings of the contacts marked „C" onto the wires 1 and 2, making sure they are the right way round. (see diagram opposite).
b) Strip the wires 1 and 2 over length A depending on the ø of the contacts (see table opposite). Before crimping,
insert the stripped part of the wire into the shaft of the contact. Check it is fully inserted via the vent hole „X" and that the wire insulation is applied against the rear of the contact.

# Wiring – Contact soldering

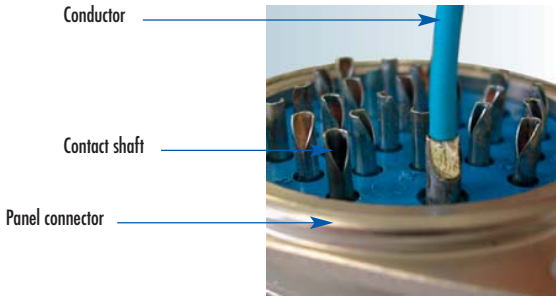
## All series

**Recommended equipment:**

We recommend a HF iron to avoid thermal shock

A screwdriver type soldering iron tip 2,4 mm wide at the end and 15 mm long.

In accordance with the RoHS directive, we recommend lead-free soldering.



## Contact soldering:

**Important**

To ensure the best possible solder, it is important to clean the tip before each operation using a damp sponge and carry out each operation quickly and accurately.

1.
Remove the sheath from the cable and then strip the wire. See explanation above.
Ensure that the strands of the wires in the stripped part are not separated.

2.
Tin the stripped part of the wire with a small amount of soldering material.
The solder metal must be evenly spread.

3.
The result must be smooth, shiny and covered with a thin film of flux (solder metal).

4.
To ensure heat transfer and stripping,
place a drop of solder metal on the end of the solder tip.

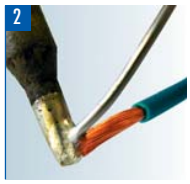
5.
Heat the contact shaft.

6.
Insert a sufficient amount of solder metal, but not too much, into the contact shaft.

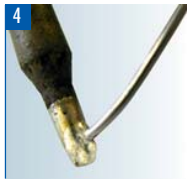
7.
Insert the pre-tinned wire into the shaft of the contact, then remove the tip and allow the soldering to cool.
(the parts must remain immobile while cooling)

**Warning**

do not leave the solder tip on the shaft of the contact for too long or you may distort the insert








## Atto and Natto Miniature Push-Pull, Miniature, Industrial, Marine, Robotic and Minex Series

### Small crimp tool


Selection knob:
Adjust the depth of crimping on the contact according to the wire cross-section. To adjust the selector, refer to instruction number 4 of the „adjusting the large crimp tool" part.


Information plate:
Gives all the information required to adjust the tool correctly.

Positioner: (unlocked position)
The positioner is designed for one contact ø. To crimp a contact of different ø, change the positioner.


Small crimp tool

**Part numbers of the small crimp tool** (Standard: M 22520-2/01 and M 22520-2/02)

| ø Contacts | Tool + Positioner | Tool | Positioner |
|---|---|---|---|
| ø 0,76 mm | – | 630 180 006 | 769 100 006 |
| ø 1 mm | 579 316 006 | 630 180 006 | 630 181 006 |

### Large crimp tool


Indexing mark

Selection knob:
Adjust the depth of the locator on the crimp tool according to the wire section

Information plate:
Gives all the information required to adjust the tool correctly

Marque d'indexation

Positioner: (unlocked position)
Identifies the ø of the contact to be crimped

Trigger:
Unlocks the positioner

**References of the large crimp tool** (Standard: M 22520-1/01 and M 22520-1/02)

| ø Contacts | Tool + Positioner | Tool | Positioner |
|---|---|---|---|
| ø 1 mm | 579 481 006 | 630 190 006 | 630 191 006 |
| ø 1,6 mm | 579 481 006 | 630 190 006 | 630 191 006 |
| ø 2,4 mm | 579 481 006 | 630 190 006 | 630 191 006 |


Large crimp tool

### Adjusting the large crimp tool:

**Important:** To adjust the positioner and the crimp tool selection knob, it must be in the open position.

1.

Press the trigger to unlock the positioner.

2.

Turn the positioner to bring the chosen colour opposite the indexing mark. (To know which colour to chose, use the table opposite or the information plate on the crimp tool.)

3.

Press on the positioner to lock your choice.

4.


Remove the safety pin. Lift the selector knob and turn it to bring the selected number opposite the indexing mark. (To know which number to choose, use the table opposite or the information plate on the crimp tool.)

5.


Refit the safety pin.

Repeat the operation each time the ø of the wire or the contact changes.

### Crimping a contact:

6.

After removing the sheath from the cable and stripping the wires (refer to the „stripping the contacts" part) and adjusting the crimp tool (refer to the „adjusting the crimp tool" part), insert the stripped part of the wire into the shaft of a contact. Ensure that it is fully inserted using the vent hole. Fully open the crimp tool. Fully insert the contact and wire assembly into the orifice on the back of the tool.

7.



Crimped contact

Then crimp by closing the two arms of the tool completely until it reopens again. Check by looking that the contact is correctly crimped: the wire must be visible through the vent hole and the insulation on the wire must be applied against the rear of the contact.

**Instruction table**

| ø Contacts | Wire | | Large crimp tool | | Small crimp tool |
|---|---|---|---|---|---|
| | AWG | Cross section in mm² | Positioner: Colours index | Position of the selection knob | Position of the selection knob |
| ø 0,76 mm | 26 | 0,15 | – | | 3 |
| ø 0,76 mm | 24 | 0,21 – 0,24 | – | | 4 |
| ø 0,76 mm | 22 | 0,34 – 0,38 | – | | 5 |
| ø 1 mm | 26 | 0,15 | Red | 1 | 4 |
| ø 1 mm | 24 | 0,21 – 0,24 | Red | 2 | 5 |
| ø 1 mm | 22 | 0,34 – 0,38 | Red | 3 | 6 |
| ø 1 mm | 20 | 0,6 | Red | 4 | 7 |
| ø 1 mm | 18 | 0,93 | Red | 5 | 8 |
| ø 1,6 mm | 20 | 0,6 | Blue | 4 | |
| ø 1,6 mm | 18 | 0,93 | Blue | 5 | |
| ø 1,6 mm | 16 | 1,23 – 1,34 | Blue | 6 | |
| ø 1,6 mm | 14 | 1,82 – 1,93 | Blue | 7 | |
| ø 2,4 mm | 16 | 1,23 – 1,34 | Yellow | 6 | |
| ø 2,4 mm | 14 | 1,82 – 1,93 | Yellow | 7 | |
| ø 2,4 mm | 12 | 2,98 – 3,18 | Yellow | 8 | |

## Power Series Puissance

### Crimp tools

| ø Crimp tool without hexagonal die | Hexagonal die WG | ø Contact | Wire | | |
|---|---|---|---|---|---|
| | | | Cross section | max. sheath ø | Stripping |
| 809 835 006 | 809 908 006 | 8 mm | 16 mm² | 7 mm | 14 mm |
| 809 835 006 | 809 908 006 | 8 mm | 25 mm² | 7 mm | 14 mm |
| 809 835 006 | 809 909 006 | 8 mm | 35 mm² | 9,3 mm | 14 mm |
| 809 875 006 | 809 912 006 | 12 mm | 70 mm² | 13,8 mm | 23 mm |
| 809 875 006 | 809 912 006 | 12 mm | 95 mm² | 13,8 mm | 23 mm |

ø 8 mm, ø 12 mm

| ø Contacts | Wire | | Lare crimp tool 579 481 006 | |
|---|---|---|---|---|
| | USA rating AWG | Cross-section in mm² | Positioner: Colours index | Position of the selection knob |
| ø 1,6 mm | 20 | 0,6 | blue | 4 |
| ø 1,6 mm | 18 | 0,93 | blue | 5 |
| ø 1,6 mm | 16 | 1,23 – 1,34 | blue | 6 |
| ø 1,6 mm | 14 | 1,82 – 1,93 | blue | 7 |

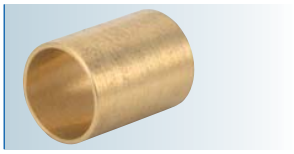
ø 1,6 mm

**Reference of the large crimp tool**

| ø Contacts | Tool + Positioner | Tool | Positioner |
|---|---|---|---|
| ø 1 mm | 579 481 006 | 630 190 006 | 630 191 006 |
| ø 1,6 mm | 579 481 006 | 630 190 006 | 630 191 006 |
| ø 2,4 mm | 579 481 006 | 630 190 006 | 630 191 006 |

### Reducers

| | | |
|---|---|---|
| Pack of 3 reducers | 25 mm² → 16 mm² | 860 250 006 |
| Pack of 9 reducers | 35 mm² classe 6 → 35 mm² classe 5 | 849 606 006 |
| Pack of 1 reducer | 95 mm² → 70 mm² | 849 603 006 |



### Tool for fitting and removing contacts

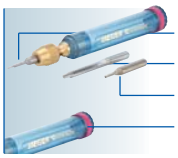
| ø Contacts | Part Numbers |
|---|---|
| 1,6 mm | 806 903 006 |
| 8 mm | 806 903 006 |
| 12 mm | 896 903 006 |

End for screwing the bushing to fit the ø 8 mm contacts.

End for screwing the bushing to fit the ø 1,6 mm contacts.

End for screwing the bushing to fit the ø 12 mm contacts.

## Fitting the contacts



No. 1: tool for removing the sockets
No. 2: tool for fitting the pins and sockets
No. 3: tool for removing the pins
Identification ring

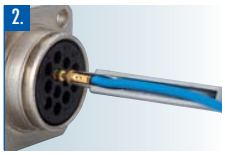
Tool for fitting and removing contacts

**Part numbers of tools for fitting and removing contacts**

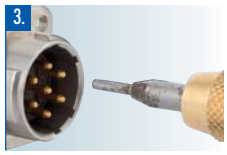
| ø Contacts | Part Number | Identification ring |
|---|---|---|
| ø 0,76 mm | 769 131 006 | White |
| ø 1 mm | 597 104 006 | Red |
| ø 1,6 mm | 577 454 006 | Blue |
| ø 2,4 mm | 577 458 006 | Yellow |
| MINEX | 597 104 106 | |
| 17 mixed contacts | 597 104 206 | |


Fitting the contacts

1. Fit blade No.2 in the handle of the tool




2. Position the wire and the contact in the channel on this blade. Insert the assembly from the rear of the panel connector or the cable connector, starting from the centre of the insert and working towards the outside, in the slot intended for the contact, according to your wiring diagram. Push the blade in as far as it will go. Withdraw the blade. Check that the contacts are correctly fitted by gently pulling on each wire.




Removing the contacts

3. Position blade No. 1 or No. 3 from the front of the panel connector or the cable connector in line with the socket or the pin depending on the blade used. Then exert axial pressure until the pin or the socket is released from the insert.

## Numerical Index – Technical guides