

JBX Push Pull Sealed IP68 (Mated)

SOURIAU



Environmentally Sealed JBX

The Solution for both Outdoor and Indoor waterproof applications

Secure for Outdoor applications



Waterproof, IP68 (Mated)

Reliable



Reliable & Easy Push Pull Locking Mechanism

High Density



Optimal design for utilization in high density applications

Flexible



Field Installable or Custom cable solutions

Confirmed Mating



Audible, Tactile, Visual

Space Savings



Small footprint, allows access in tight applications

Rugged



Metal shielding housing, high vibration and shock environments

Shielding



360° EMI Shielding

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JBX Push Pull



Description

- A rugged sealed IP68 connector for high vibration & shock environments for both indoor & outdoor applications
- Attractive & compact design enhances the overall appearance of the equipment and cable assemblies
- Sizes available today – size 0 (Consult factory for additional sizes)
- Contact layouts available today 2 to 8

Applications

- SOURIAU Push Pull Sealed connectors can be used in a variety of markets including Instrumentation, Medical, Broadcast Entertainment and Telecommunications.

Technical features

Materials

- Shell: Brass
- Shell Plating: Chrome over Nickel
- Insulator: PEEK with 15% Glass filled
- Contacts: Brass
- Contacts Plating: Gold over Nickel
- Sealing Gland: Silicon Rubber

Mechanical

- Endurance: 1000 mating/unmating
 - Vibration: 10 - 2000 HZ (per MIL STD 1344A)
 - Shock: 50g duration 6ms (per MIL STD 1344A)
 - Autoclaveable
- Please note: strain relief boot not to be used for autoclave applications

Electrical

- Current Rating: see chart
- Contact Resistance: see chart
- Insulation Resistance: 500 MΩ
- Dielectric Withstanding Voltage: see chart
- Operating Voltage: see chart

Environmental








- Operating Temperature: -55°C to + 125°C
- Salt Spray Resistance: 96 hours
- Sealing: IP68 (Mated) (please note: receptacle provides bulkhead sealing mated & unmated)
- RoHS Compliant

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Contact Layouts

| Shell size 0 | | | | | | | |
|---------------------------------|---|---|---|--|---|---|---|
| | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Male insulator wire side |  |  |  |  |  |  |  |
| Solder | S | S | S** | S** | S** | S** | S** |
| Crimp | C | C | C | C | | | |
| PCB straight tails* | P* | P* | P* | P* | P* | P* | P* |
| PCB right angles* | Q* | Q* | Q* | Q* | | | |
| Contact diameter mm | 0.9 | 0.9 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 |
| Solder Max. AWG | 24 | 24 | 26 | 26 | 28 | 28 | 28 |
| Crimp wire Max. AWG | 20 | 20 | 22 | 22 | | | |
| Max current rating | 10 | 8 | 7 | 6.5 | 2.5 | 2.5 | 2 |
| Dielectric Withstanding Voltage | 1400 | 1300 | 1350 | 800 | 680 | 680 | 680 |
| Operating Voltage (Vdc/Vrms) | 600/460 | 600/420 | 600/4205 | 400/220 | 320/220 | 320/220 | 320/220 |

** Inserts with fixed non removable contacts

* For receptacles with female contacts

Note : Contact numbering mating faces receptacle view: counterclockwise from key at position 1

Contact numbering mating faces plug view: clockwise from key at position 1

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Product Overview

Keying

Keying angles

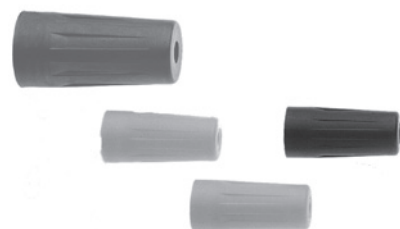
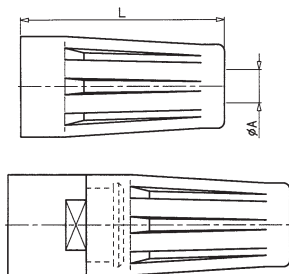
JBX Series are mechanically keyed to ensure correct alignment of the inserts before the contacts mate.

«G» : normal inserts ; 0° keying angle, plugs with pin contacts, receptacles with socket contacts

| | Single key way | | Dual key way | |
|--------------|----------------|-----|--------------|-----|
| Key | G | J | A | B |
| Keying angle | 0° | 45° | 30° | 60° |
| Plug | | | | |
| Receptacle | | | | |

Options

Strain Relief Boot



Each strain relief boot can accept diverse cable diameters.
Strain relief boot also available in various colors for color coding.
Please note: strain relief boot not to be used for autoclaveable applications.

| Part number | Shell size | Dimensions | | | |
|-------------|------------|------------|----|---------|-----|
| | | Ø A | L | Ø Cable | |
| | | | | Min | Max |
| JBX 0 MP* | 0 | 2.2 | 20 | 1.5 | 5.5 |

* Color code - see chart below

| Color Code | Colors |
|------------|--------|
| A | blue |
| B | white |
| G | grey |
| J | yellow |
| M | brown |
| N | black |
| R | red |
| V | green |
| O | orange |

Material :
ELASTOLLAN (PUR)

Working temperature :
- 40°C ; + 80°C
- 40°F ; + 176°F

Strain relief boots are ordered separately. When ordering a strain relief boot please add an M in the suffix of the part number.

Please note: strain relief boot not to be used for autoclaveable applications.

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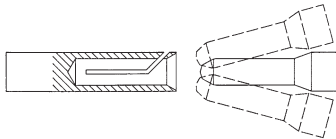


Wiring & assembly instructions

Removable contacts

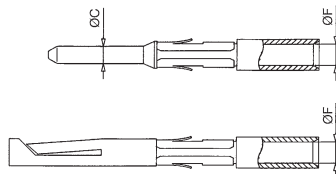
Removable contacts

Reliable design



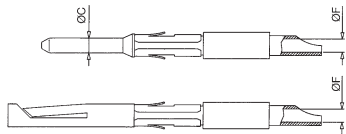
- Conical entry with chamfered edge on the socket contact and smooth slope on the pin contact ensure perfect concentric mating even when handled carelessly.
- The pressure spring of the socket contact maintains a constant force on the pin contact when mated.

Crimp contacts



| Contact | | Usable cables | | | Max. current rating (A) | Contact resistance (mΩ) | Endurance (number of cycles) |
|---------|------|---------------------------------|-------|----------|-------------------------|-------------------------|------------------------------|
| Ø C | Ø F | Core section (mm ²) | | AWG | | | |
| 0.7 | 0.85 | Min | Max. | 22-24-26 | 7 | 5 | 500 Max. |
| 0.9 | 1.1 | 0.129 | 0.326 | 20-22-24 | 10 | 3.5 | 1000 |

Solder contacts

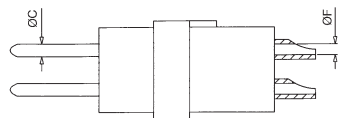


| Contact | | Usable cables | | | Max. current rating (A) | Contact resistance (mΩ) | Endurance (number of cycles) |
|---------|-----|---------------------------------|------|-----|-------------------------|-------------------------|------------------------------|
| Ø C | Ø F | Core section (mm ²) | | AWG | | | |
| 0.7 | 0.7 | Min | Max. | 26 | 7 | 5 | 500 Max. |
| 0.9 | 0.8 | - | 0.30 | 24 | 10 | 3.5 | 1000 |

The conductor bucket on the solder contacts is designed with an angle to form a cup into which the solder can flow easily.

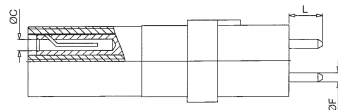
Fixed contacts

Solder contacts



| Contact | | Shell size | Usable cables | | Max. current rating (A) | Contact resistance (mΩ) | Endurance (number of cycles) |
|---------|------|------------|---------------------------------|-----|-------------------------|-------------------------|------------------------------|
| Ø C | Ø F | | Core section (mm ²) | AWG | | | |
| 0.5 | 0.5 | 0 | 0.096 | 28 | 5 | 10 | 1000 |
| 0.7 | 0.63 | 0 | 0.15 | 26 | 7 | 5 | 1000 |

Contacts for PCB



| Contacts for PCB | | Contact length dimensions "L" |
|--------------------------------------|--|-------------------------------|
| PCB tail length size 0 | | dimension "L" 5.5 mm |
| 0.7 mm female PCB tail length size 0 | | dimension "L" 3.5 mm |
| 0.9 mm female PCB tail length size 0 | | dimension "L" 3.5 mm |

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Ordering Information

| BASIC SERIES | | JBX | FH | 0 | G | 07 | M | S | S | D | P | M |
|-------------------------|--|-----|----|---|---|----|---|---|---|---|---|---|
| Shell type - Receptacle | HD - Protruding Front Mount IP68 | | | | | | | | | | | |
| Shell type - Plug | FH - Straight Plug IP68 | | | | | | | | | | | |
| Shell size | 0 | | | | | | | | | | | |
| Keying | G - J - A - B | | | | | | | | | | | |
| Contact layout | 2, 3, 4, 5, 6, 7, 8 position | | | | | | | | | | | |
| Contact type | M: Male F: Female | | | | | | | | | | | |
| Contact termination | S: Solder C: Crimp (not available in positions 6, 7 & 8) P*: PCB Straight Q*: PCB Right Angle (not available in position 6,7 & 8) | | | | | | | | | | | |
| Surface plating | S: Chrome over Nickel N: Black Chrome over Nickel | | | | | | | | | | | |
| Obligatory Suffix | D: For all part numbers Standard Sealing Gland Tree (Cable OD - 1.5mm to 5.5mm) | | | | | | | | | | | |
| Insert | P: PEEK material | | | | | | | | | | | |
| Cable Backnut Option | M: Connector with backnut for strain relief boot (order boot separately on page 4) | | | | | | | | | | | |
| Mate Identification | R: Red Dot for Shells: FH and HD | | | | | | | | | | | |

* For receptacles only

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Markets

**Telecom
Datacom**



**Broadcast / Entertainment
Stage Light & Sound**



**Building Automation
& Controls**



Medical



Instrumentation & Measurement



Energy Power