

JBX SERIES



# SOURIAU

Push-Pull Coupling Mechanism

## Typical Applications



Medical



Robotics - Machine tools



Building Automation & Control



Instrumentation / Measurement



Off road - Mining - Railway



Telecom - Data infrastructure

## Features & Benefits

### WATER PROOF

#### IP68 in Mated and Unmated Conditions

Ideal for outdoor applications with temporary or continuous water immersion and dust protection.

### SIGNAL INTEGRITY

#### 360° EMI Shielded

Less than 5mΩ: Qualified and Compatible to be used in electromagnetic radiation areas and ensures proper signal integrity and transmission.

### SPACE SAVING

#### High Density Layouts

Ideal for compact devices due to small footprint. The use of 0.5mm contacts along with miniature housing makes it suitable for tight applications.

### RELIABLE MATING

#### Push Pull Locking Mechanism

Only requires two fingers to mate/unmate securely with an audible, tactile and visual confirmed mating over 1,000 times.

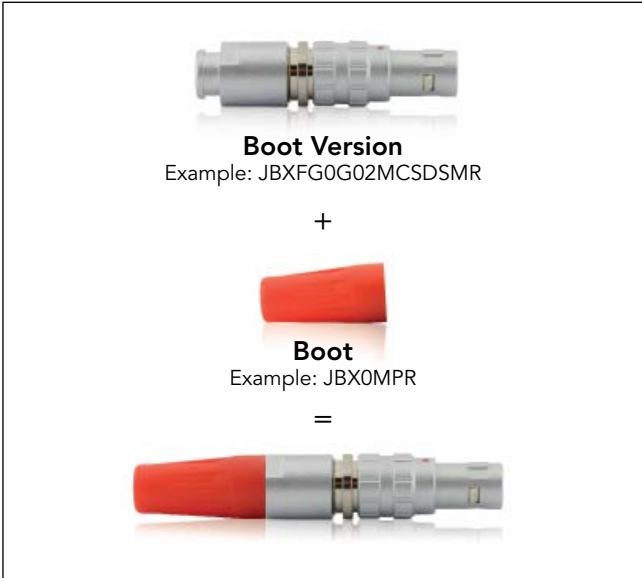
### COST SAVINGS

#### Mixed Power & Signal Layouts

Power supply and transmission can be combined in a unique interconnection solution to reduce system complexity and minimize component/installation costs.



- Choice of Contact termination**
- Crimp
  - Solder



**Plug**



FC: Right Angle Plug



FD: Straight Plug



FG: Breakaway Plug



FF: Straight Plug no Latch with Black Boot



FN: Straight Plug with Lanyard



FM: Right Angle Plug with Lanyard

## Range Overview

### Receptacle



EA: Double Nut Receptacle\*



ED: Protuding Front Mount



EP: Rear Mount Receptacle\*



ER: Front Mount Receptacle



EZ: Rear Mount Receptacle with Mounting Pins



PC: In Line Cable Receptacle



SA: Rear Mount Cable Receptacle



SR: Front Mount Cable Receptacle

### Choice of Contact termination

- Crimp
- Solder
- Straight PCB Tails
- 90° PCB Tails

### Protective Boot



\* available with 90° PCB tails

**Protective Boot**



**Choice of Contact termination**

- Crimp
- Solder

**Plug**  
(Available in size 0 and 2)



FH: Straight Plug



**Boot Version**

Example: JBXFH0G02FSSDSMR

+



**Boot**

Example: JBX0MPR

=



## Range Overview

### Receptacle (Available in size 0 and 2)



HC: Rear Mount Receptacle\*  
Available size 0



HD: Protuding Front Mount Receptacle  
Available size 0



HH: Front Mount Extended Receptacle  
Available size 0 & 2



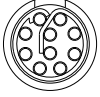
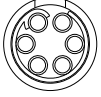
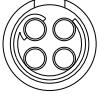
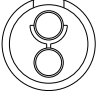
EC: Double Nut, Front or Rear Mount Receptacle \*  
Available size 2

### Choice of Contact termination

- Crimp
- Solder
- Straight PCB Tails
- 90° PCB Tails

\* available with 90° PCB tails

## Layouts (Electrical parameter according to UL1977)

| Shell size | Contact Ø 0.5                                                                                                                                                                                                                                                                                                                                 | Contact Ø 0.7                                                                                                                                                                                                                                                                                                                                | Contact Ø 0.9                                                                                                                                                                                                                 | Contact Ø 01.3                                                                                                                                                                                                                   | Contact Ø 1.6 | Contact Ø 2.0 |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|
| 00         | 2 contacts<br>2A 500V<br><br>4 contacts<br>2A 500V<br>                                                                                                                      |                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                  |               |               |
| 0          | 6 contacts<br>2.5A 320V<br><br>7 contacts<br>2.5A 320V<br><br>8 contacts<br>2A 190V<br> | 4 contacts<br>7A 660V<br><br>5 contacts<br>6.5A 400V<br>                                                                                                                  | 2 contacts<br>10A 660V<br><br>3 contacts<br>8A 600V<br>    |                                                                                                                                                                                                                                  |               |               |
| 1          | 10 contacts<br>2.5A 300V<br><br>12 contacts<br>2.5A 170V<br>                                                                                                            | 6 contacts<br>7A 660V<br><br>7 contacts<br>7A 660V<br><br>8 contacts<br>5A 600V<br> | 4 contacts<br>10A 900V<br><br>5 contacts<br>9A 660V<br> | 2 contacts<br>15A 760V<br><br>3 contacts<br>12A 600V<br> |               |               |

Note: Contacts are numbered counter clock wise in the plug and clock wise in the receptacle.



Contacts Ø 0.5:  
Solder wire: 30 maxi

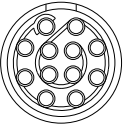
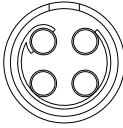
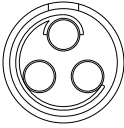
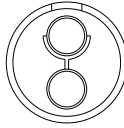
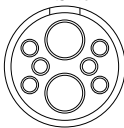
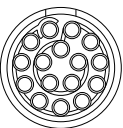
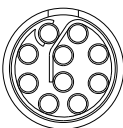
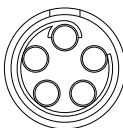
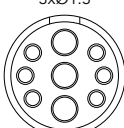
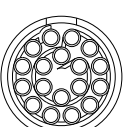
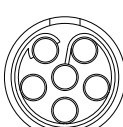
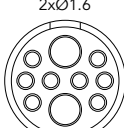
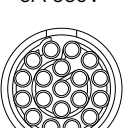
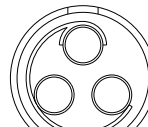
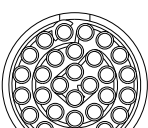
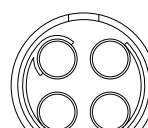
Contacts Ø 0.7:  
Solder wire: 26 maxi  
Crimp wire: 22-24-26

Contacts Ø 0.9:  
Solder wire: 24 maxi  
Crimp wire: 20-22-24

Contacts Ø 1.3:  
Solder wire: 20 maxi  
Crimp wire: 18-20-22

Contacts Ø 1.6:  
Solder wire: 18 maxi  
Crimp wire: 14-16-18

Contacts Ø 2.0:  
Solder wire: 16 maxi  
Crimp wire: 12-14-16

| Shell size | Contact Ø 0.7                                                                                                   | Contact Ø 0.9                                                                                                 | Contact Ø 01.3                                                                                                 | Contact Ø 1.6                                                                                                   | Contact Ø 2.0                                                                                                    | Mixed Contact                                                                                                                       |
|------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 2          | 12 contacts<br>7A 830V<br>     | 8 contacts<br>10A 830V<br>   | 4 contacts<br>15A 1000V<br>   | 3 contacts<br>17A 830V<br>    | 2 contacts<br>30A 1000V<br>   | 8 contacts<br>26A 700V<br>6xØ1.3<br>2xØ2.0<br>   |
|            | 16 contacts<br>6A 730V<br>     | 10 contacts<br>8A 830V<br>   | 5 contacts<br>14A 900V<br>    |                                                                                                                 |                                                                                                                  | 9 contacts<br>26A 700V<br>6xØ0.7<br>3xØ1.3<br>   |
|            | 18 contacts<br>5.5A 660V<br>  |                                                                                                               | 6 contacts<br>12A 900V<br>   |                                                                                                                 |                                                                                                                  | 10 contacts<br>17A 700V<br>8xØ0.7<br>2xØ1.6<br> |
|            | 19 contacts<br>5A 660V<br>   |                                                                                                               | 7 contacts<br>11A 730V<br>  |                                                                                                                 |                                                                                                                  |                                                                                                                                     |
| 3          | 22 contacts<br>5.5A 560V<br> | 14 contacts<br>9A 830V<br> | 8 contacts<br>12A 830V<br>  | 7 contacts<br>15A 1000V<br> | 3 contacts<br>25A 1600V<br> |                                                                                                                                     |
|            | 30 contacts<br>3.5A 400V<br> | 18 contacts<br>7A 660V<br> | 10 contacts<br>12A 600V<br> |                                                                                                                 | 4 contacts<br>25A 1100V<br> |                                                                                                                                     |

All dimensions are in mm

## General Technical Characteristics



### Materials

- **Outer shell and collet nut:** Brass
- **Latching sleeve:** Brass
- **Shielding ring:** Brass
- **Nut:** Brass
- **Half bushes:** Brass
- **Clip:** Beryllium copper
- **Insert:** PEEK
- **Collet:** PA 6/6 + MoS2
- **Cable grommet:** Silicon rubber
- **Contacts:** Gold thickness as per MIL-G-45204C type 1, class 00
- **Halogen free**
- **Oring (IP68 version):** NBR

### Environmental

- **Operating temperature:**  
from -40°C to +125°C
- **Flammability rating:**  
UL94 V-0
- **Salt spray:**  
per MIL-STD-1344 method 1001.1  
- 48 h (standard version)  
- 96 h (Black Chrome over Nickel)
- **Sealing:**  
Per IEC 60529  
- Non sealed: IP40  
- Sealed: IP68 (mated / unmated)
- **Shielding effectiveness:**  
55 dB at 100 MHz

### Electrical



- **In accordance with:**
  - UL 1977: Certificate ECBT2  
File number: E118235
  - CSA C22.2: Certificate ECBT8  
File number E238675

### Mechanical

- **Durability:**  
> 1000 cycles (except for 0.7 mm contacts for which endurance is limited to 500 cycles)
- **Vibration resistance:**  
10 - 2000 Hz, acceleration 15 g, contact Ø 0.7 mm and 0.9 mm  
10 - 2000 Hz, acceleration 20 g, contact Ø 1.3 mm - 1.6 mm and 2 mm
- **Thermal shock:**  
5 cycles 1 hour from -40°C to 80°C  
per MIL-STD-1344 method 1001.1
- **Mechanical shock:**  
50 g, duration 6 ms ; contact Ø 0.7 mm and 0.9 mm  
100 g, duration 6 ms ; contact Ø 1.3 mm - 1.6 mm and 2 mm





Your local contact



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