

## FIBRE OPTIC CONNECTOR SERIES

# JNR13 CONNECTOR



The JNR13 Connectors, featuring expanded beam technology, hermaphroditic connections, and rugged construction for field deployment and hybrid configurability, have been designed for harsh environment applications such as military tactical communications, avionics, offshore systems, outside broadcast, mining, and plants.

The expanded beam technology uses expanded and collimated beams to couple optical fibres without any contact. It could allow for optics to be used in areas that have been quite restrictive due to the presence of damage or contamination at the fibre end.

The hermaphroditic connector design enables fast deployment by daisy-chaining multiple cable segments. JNR13 connectors also enable the transfer of electrical signals or power using a hybrid insert configuration.



### FEATURES

- Advanced expanded beam technology
- Rugged field deployable fibre optic connector
- Hermaphroditic interconnection
- 2 and 4 optical channels
- Singlemode (SM) or Multimode (MM)
- Optical/electric hybrid configurations available
- Custom configurations available
- Environmental sealing (IPX8)
- Very high resistance to vibration, shock, environmental effects, dust, and debris
- Easy clean, no special tools
- No adaptors necessary
- Cables assemblies with plugs and bulkheads

### APPLICATIONS

- Military Communications
- Avionics, Marine
- Mining, Oil and Gas
- Rail, Transport
- Broadcast
- Telecommunications
- Medical
- Industrial

# FIBRE OPTIC CONNECTOR SERIES

## Specification

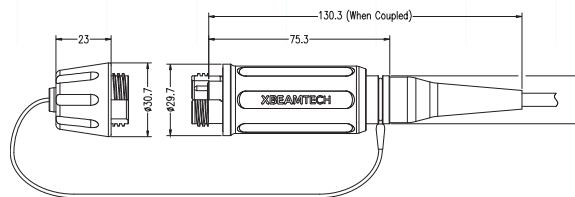
| OPTICAL PERFORMANCE    |                                      |                 |
|------------------------|--------------------------------------|-----------------|
| Insertion loss         | Typical 0.8 - 1.8 dB @ 1310, 1550 nm | Singlemode      |
|                        | Typical 0.5 - 1.0 dB @ 850, 1300 nm  | Multimode       |
| Return loss            | > 32 dB                              | Singlemode only |
| MECHANICAL PERFORMANCE |                                      |                 |
| Durability             | 3,000 mating cycles                  |                 |
| Operating temperature  | -40 °C to 85 °C                      |                 |
| Storage temperature    | -55 °C to 85 °C                      |                 |
| Water immersion        | Up to 15 m                           |                 |
| Free fall              | 500 falls @ 1.2 m                    |                 |
| Vibration              | 10 - 500 Hz, 3 axis, 0.75 mm, 10 g   |                 |
| Shock                  | 11 ms, 3 axis, 50 g                  |                 |

## Dimensions

### JNR13 Plug connector

#### JNR13 -PSD

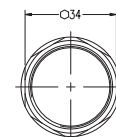
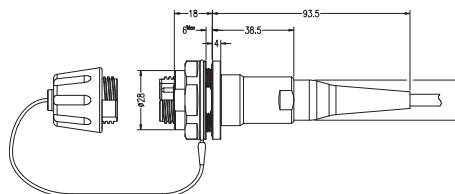
Standard Plug with Dust Cap



### JNR13 Jam nut receptacle

#### JNR13-RJS

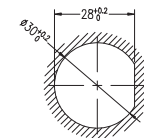
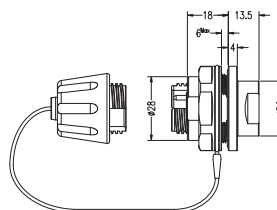
Receptacle, Jam Nut, Standard, Dust Cap



Flange Nut

#### JNR13-RJL

Receptacle, Jam Nut, Low Profile, Dust Cap



Panel Cut Out D-Hole Mount Data



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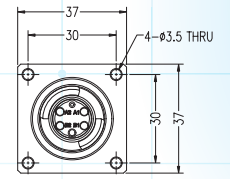
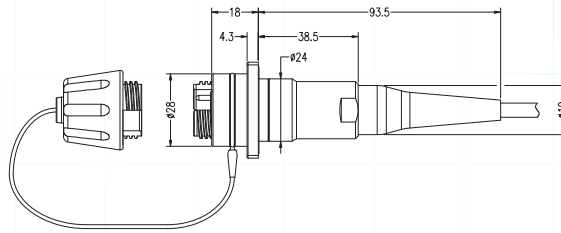
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# FIBRE OPTIC CONNECTOR SERIES

## JNR13 Square flange receptacle

### JNR13-RQS

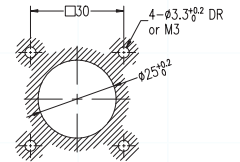
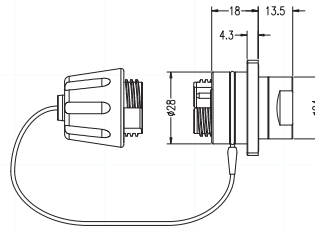
Receptacle, Square Flange, Standard, Dust Cap



Square Flange

### JNR13-RQL

Receptacle, Square Flange, Low Profile, Dust Cap



Panel Cut Out  
Square Flange Mount Data

## MODELS

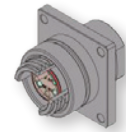
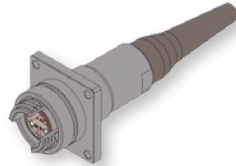
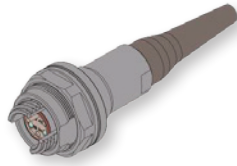
**JNR13-PSD**  
Standard Plug

**JNR13-RJS**  
Receptacle,  
Jam Nut Standard

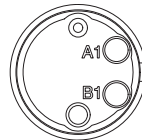
**JNR13-RQS**  
Receptacle, Square  
Flange Standard

**JNR13-RJL**  
Receptacle,  
Jam Nut Low Profile

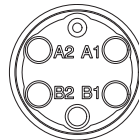
**JNR13-RQL**  
Receptacle, Square  
Flange Low Profile



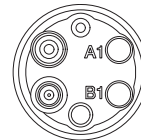
## Insert arrangements



O2  
2CH OPTICAL



O4  
4CH OPTICAL



I2  
2CH OPTICAL  
2CH AWG20

## JNR Connector series



JNR 15

JNR 13

JNR 11  
Insert



JNR 15

JNR 13

JNR 11



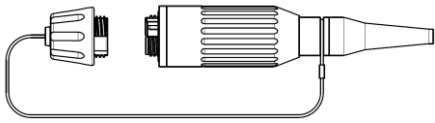
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# FIBRE OPTIC CONNECTOR SERIES

## Ordering Information

### Connector only:



#### Connector A

- PSD : Plug with dust cap
- RJS : Receptacle, jam nut, standard, dust cap
- RJL : Receptacle, jam nut, low profile, dust cap
- RQS : Receptacle, square flange, standard, dust cap
- RQL : Receptacle, square flange, low profile, dust cap
- CXX : Customised connector

#### Arrangement

- O2 : 2 CH OPTICAL
- O4 : 4 CH OPTICAL
- I2 : 2 CH OPTICAL, 2 CH AWG20

#### Cable diameter

- S09 :  $\varnothing$  0.9 mm buffered fibre  
– RJL, RQL
- S20 :  $\varnothing$  2.0 mm jacketed cable  
– RJS, RQS
- D55 :  $\varnothing$  5.5 mm outdoor cable  
– PSD, RJS, RQS
- DXX : Others

**JNR13-PSD-B-O4-M1-D55\_(C03)**

#### Shell material & finish

- B : Aluminum alloy, black hard anodized
- X : Others

#### Fibre type

- S1 : SM – 9  $\mu$ m core Singlemode fibre
- M1 : OM1 – 62.5  $\mu$ m core Multimode fibre
- M2 : OM2 – 50  $\mu$ m core Multimode fibre
- M3 : OM3 – 50  $\mu$ m core Multimode fibre

Note. Other configurations, materials and finishes available upon request



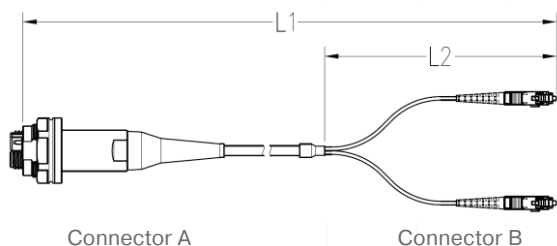
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# FIBRE OPTIC CONNECTOR SERIES

## Ordering Information

### Cable assembly:



#### Connector A

- PSD : Plug with dust cap
- RJS : Receptacle, jam nut, standard, dust cap
- RJL : Receptacle, jam nut, low profile, dust cap
- RQS : Receptacle, square flange, standard, dust cap
- RQL : Receptacle, square flange, low profile, dust cap
- CXX : Customised connector

#### Arrangement

- O2 : 2 CH OPTICAL
- O4 : 4 CH OPTICAL
- I2 : 2 CH OPTICAL, 2 CH AWG20

#### Cable diameter

- S09 :  $\varnothing$  0.9 mm buffered fibre – RJL, RQL
- S20 :  $\varnothing$  2.0 mm jacketed cable – RJS, RQS
- D55 :  $\varnothing$  5.5 mm outdoor cable – PSD, RJS, RQS
- DXX : Others

#### Cable length

- L1/L2 : Total length (m)/distribution length (cm)  
eg. 100 : Total 100 m
- 020/30B : Total 20 m/distribution 30 cm breakout cable
- 020/30D : Total 20 m/distribution 30 cm distribution cable

**JNR13AS-RJS-B-O4-M1-S20-LC-020/30D\_(C03)**

#### Shell material and finish

- B : Aluminum alloy, black hard anodized
- X : Others

#### Fibre type

- S1 : SM – 9  $\mu$ m core Singlemode fibre
- M1 : OM1 – 62.5  $\mu$ m core Multimode fibre
- M2 : OM2 – 50  $\mu$ m core Multimode fibre
- M3 : OM3 – 50  $\mu$ m core Multimode fibre

#### Connector B

- SA : Same as connector A
- SC : SC connector
- LC : LC connector
- ST : ST connector
- CX : Customised connector

Note. Other configurations, materials and finishes available upon request



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