

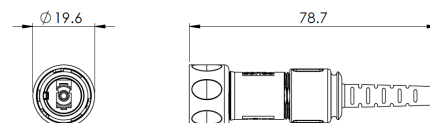


- Sealed to IP66 IP68 and IP69K when mated
- IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- Simplex LC-Type Interface
- Cabled Versions: 0S1, 0M1, 0M3
- Cable range from 5 to 450M
- Diameter over coupling ring 19.7mm
- Flex, Flex In-Line and Rear Panel
- Colour coded O-rings & washers for easy identification purposes
- Secure, proven locking system
- Flame Retardant moulding material - Polyamide UL94-V0
- Tamper proof construction
- Sealing caps available to maintain IP68 rating
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1



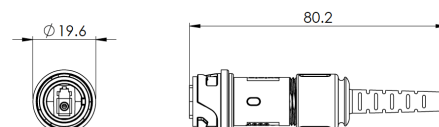
PXF4050XXX

- Patchcords with IP68 connectors
- Available in 5 - 450m lengths
- Supplied with LC fiber plug
- OS1, OM1 or OM3 cable options
- Termination options



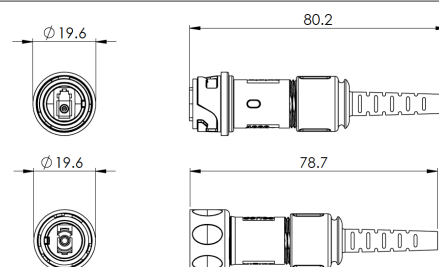
PXF4051XXX

- Patchcords with IP68 connectors
- Available in 5 - 450m lengths
- Supplied with LC fiber plug
- OS1, OM1 or OM3 cable options
- Termination options



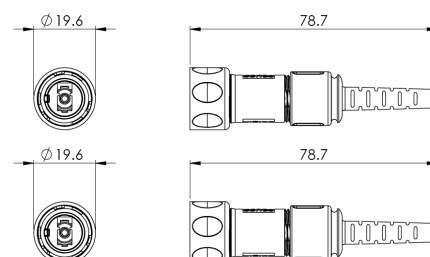
PXF4054XXX

- Patchcords with IP68 connectors
- Available in 5 - 450m lengths
- Supplied with LC fiber plug
- OS1, OM1 or OM3 cable options
- Termination options



PXF4055XXX

- Patchcords with IP68 connectors
- Available in 5 - 450m lengths
- Supplied with LC fiber plug
- OS1, OM1 or OM3 cable options
- Termination options

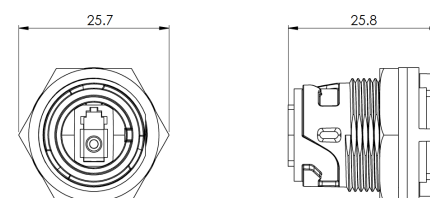


## Rear Panel Mounting Connector



PXF4053XXX

- LC fiber adapter
- Leaded with LC connector
- Socket variant mates with PXF4050 type cables



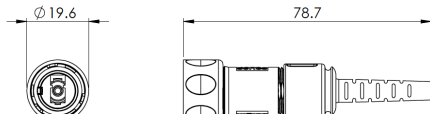
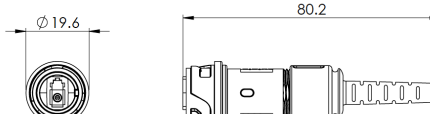
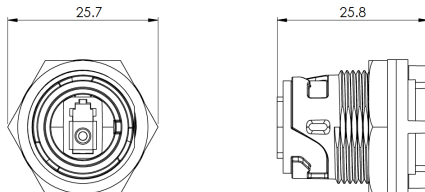
## Part no.

## Description

PXF4053

IP-Sealed LC Type, Rear Panel Mounted, LC Connector at Rear.



| <div>Flex Cable Connector</div> <div></div> <div>PXF4050</div>            | <div><ul style="list-style-type: none"><li>○ Mates with Flex In-Line or Panel mounting versions PXF4051, PXF4053</li><li>○ 30° turn locking ring</li><li>○ Supplied without LC Connector</li></ul></div> | <div></div>                                                                                                                                                                                     |          |             |         |                                    |         |                                  |         |                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|---------|------------------------------------|---------|----------------------------------|---------|------------------------------------|
| <div>In-Line Flex Cable Connector</div> <div></div> <div>PXF4051</div>    | <div><ul style="list-style-type: none"><li>○ Mates with Flex Cable connector PXF4050</li><li>○ For In-Line connection</li><li>○ Supplied without LC Connector</li></ul></div>                            | <div></div>                                                                                                                                                                                     |          |             |         |                                    |         |                                  |         |                                    |
| <div>Rear Panel Mounting Connector</div> <div></div> <div>PXF4053</div> | <div><ul style="list-style-type: none"><li>○ Mates with Flex Cable connector PXF4050</li><li>○ Rear Panel Mounting</li><li>○ Single hole fixing</li><li>○ Supplied without LC Connector</li></ul></div>  | <div></div>                                                                                                                                                                                    |          |             |         |                                    |         |                                  |         |                                    |
| <div>Accessories</div> <div></div>                                      | <div><ul style="list-style-type: none"><li>○ Sealing caps to maintain IP rating when connectors are not in use</li></ul></div>                                                                           | <div><table><tr><th>Part no.</th><th>Description</th></tr><tr><td>PXP4081</td><td>Sealing cap for use with PXF4050's</td></tr><tr><td>PXP4082</td><td>Sealing cap for use with PXF4051</td></tr><tr><td>PXP4083</td><td>Sealing cap for use with PXF4053's</td></tr></table></div> | Part no. | Description | PXP4081 | Sealing cap for use with PXF4050's | PXP4082 | Sealing cap for use with PXF4051 | PXP4083 | Sealing cap for use with PXF4053's |
| Part no.                                                                                                                                                   | Description                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                    |          |             |         |                                    |         |                                  |         |                                    |
| PXP4081                                                                                                                                                    | Sealing cap for use with PXF4050's                                                                                                                                                                       |                                                                                                                                                                                                                                                                                    |          |             |         |                                    |         |                                  |         |                                    |
| PXP4082                                                                                                                                                    | Sealing cap for use with PXF4051                                                                                                                                                                         |                                                                                                                                                                                                                                                                                    |          |             |         |                                    |         |                                  |         |                                    |
| PXP4083                                                                                                                                                    | Sealing cap for use with PXF4053's                                                                                                                                                                       |                                                                                                                                                                                                                                                                                    |          |             |         |                                    |         |                                  |         |                                    |

O-ring & washer pack



| Part no.   | Description                            |
|------------|----------------------------------------|
| PXP4089/WH | White coloured O-ring and washer pack  |
| PXP4089/RD | Red coloured O-ring and washer pack    |
| PXP4089/BL | Blue coloured O-ring and washer pack   |
| PXP4089/YL | Yellow coloured O-ring and washer pack |
| PXP4089/GN | Green coloured O-ring and washer pack  |

## Cables & connectors

### Mechanical

|                       |                                                                                                                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sealing               | IP69K, DIN40050-9<br>IP68, EN60529:1992+A2:2013<br>(10m depth for 2 weeks)<br>IP66, EN60529:1992+A2:2013<br>1.0 - 1.1NM (91lb.in)<br>-25°C to +70°C<br>EN60068-2-52 Test Kb Salt Mist<br>(Cyclic) Marine Severity Level 1 |
| Panel Mount Nut       |                                                                                                                                                                                                                           |
| Operating temperature |                                                                                                                                                                                                                           |
| Salt Mist             |                                                                                                                                                                                                                           |

### Optical

|                    |                     |
|--------------------|---------------------|
| IEC 61753-1        |                     |
| Max Insertion Loss | 0.2db } single mode |
| AVG Insertion Loss | 0.1db } single mode |

### Material:

|                       |                   |
|-----------------------|-------------------|
| Flex and panel types: |                   |
| Body Mouldings:       | Polyamide         |
| Flammability Rating:  | UL94v-0           |
| UV Resistance:        | To EN 500021:1999 |

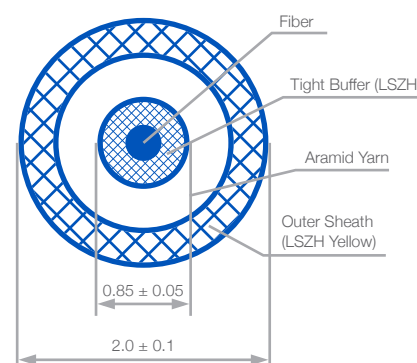
O Rings: Silicone

Panel Sealing O Ring: Silicone

**RoHS** Compliant

## Fiber Specification - SECTION OSI

| Item                                 | Detail                                                                      | Specification                                                              |
|--------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Fiber type                           | /                                                                           | G.657A2 (OS1)                                                              |
| Mode field diameter                  | Wavelength<br>Range of nominal values<br>Tolerance                          | 1310nm<br>8.6µm -9.5µm<br>±0.4 µm                                          |
| Cladding diameter                    | Nominal<br>Tolerance                                                        | 125.0µm<br>±0.7 µm                                                         |
| Core concentricity error             |                                                                             | ≤0.5µm                                                                     |
| Cladding non-circularity             |                                                                             | ≤1%                                                                        |
| Coating diameter                     | Nominal<br>Tolerance                                                        | 245µm<br>±10µm                                                             |
| Coating-cladding concentricity error |                                                                             | ≤12.5µm                                                                    |
| Cut-off wavelength                   |                                                                             | ≤1260 nm                                                                   |
| Uncabled fiber macrobending loss     | Radius(mm)<br>Number of turns<br>Max. at 1550nm(dB)<br>Max. at 1625 nm (dB) | 15    10    7.5<br>10    1    1<br>0.03    0.1    0.5<br>0.1    0.2    1.0 |
| Min. proof stress                    |                                                                             | 0.69 GPa                                                                   |
| Dynamic fatigue parameter            |                                                                             | ≥20                                                                        |
| Chromatic dispersion coefficient     | λ0min<br>λ0max<br>S0max                                                     | 1300 nm<br>1324 nm<br>0.092 ps/nm2 ×km                                     |
| Other parameters meet standard       | ITU-T G.657                                                                 |                                                                            |



## Optical Cable Specification

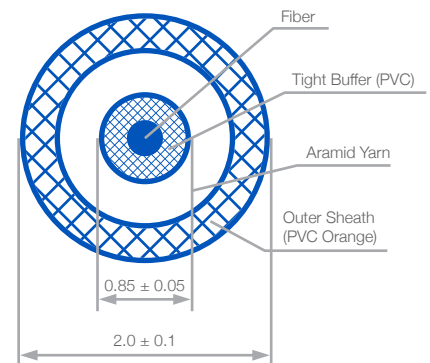
| Structure Parameter      |                                                                              |                                                                            |
|--------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Tight buffer             | Material                                                                     | LSZH                                                                       |
|                          | Outer diameter                                                               | 0.85mm±0.05mm                                                              |
| Strength member          | Material                                                                     | Aramid yarn                                                                |
| Outer sheath             | Sheath material                                                              | LSZH                                                                       |
|                          | Sheath color                                                                 | Yellow(Pantone 136C) Chromatic aberration E: ≤4.0                          |
|                          | Min. sheath thickness                                                        | 0.3mm                                                                      |
|                          | Dimension                                                                    | 2.0mm±0.1mm                                                                |
| Transmission Performance |                                                                              |                                                                            |
| Attenuation coefficient  | Wavelength 1310nm~1625nm<br>Maximum at 1383 nm ±3 nm<br>Wavelength 1550nm    | ≤0.4 dB/km<br>≤0.4 dB/km<br>≤0.3 dB/km                                     |
| Macrobending loss        | Radius(mm)<br>Number of turns<br>Max. at 1550 nm(dB)<br>Max. at 1625 nm (dB) | 15    10    7.5<br>10    1    1<br>0.03    0.1    0.5<br>0.1    0.2    1.0 |

### Other performances

|                               |                                        |
|-------------------------------|----------------------------------------|
| Min. bending radius of work   | 10mm                                   |
| Other parameter meet standard | IEC60794-2-50, YD/T1258.2, ITU-T G.657 |

**Fiber Specification - SECTION OMI**

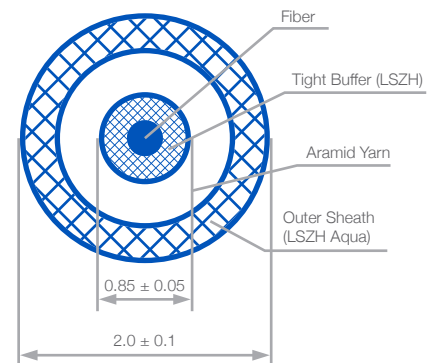
| Item                                                          | Detail                                                                 | Specification                              |
|---------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------|
| Fiber type                                                    | /                                                                      | 62.5/125(A1b) (OM1)                        |
| Core diameter                                                 | Normal value<br>Tolerance                                              | 62.5 $\mu\text{m}$<br>$\pm 3 \mu\text{m}$  |
| Cladding diameter                                             | Nominal<br>Tolerance                                                   | 125.0 $\mu\text{m}$<br>$\pm 2 \mu\text{m}$ |
| Core-cladding concentricity error                             |                                                                        | $\leq 3 \mu\text{m}$                       |
| Cladding non-circularity                                      |                                                                        | $\leq 2\%$                                 |
| Core non-circularity                                          |                                                                        | $\leq 6\%$                                 |
| Primary coating diameter (uncoloured)                         | Nominal<br>Tolerance                                                   | 245 $\mu\text{m}$<br>$\pm 10 \mu\text{m}$  |
| Primary coating-cladding concentricity error                  |                                                                        | $\leq 12.5 \mu\text{m}$                    |
| Uncabled fiber macrobending loss                              | Radius(mm)<br>Number of turns<br>At wavelengths 850 nm and 1300nm (dB) | 37.5<br>100<br>0.5                         |
| Min. proof stress                                             |                                                                        | 0.69 GPa                                   |
| Dynamic fatigue parameter                                     |                                                                        | $\geq 20$                                  |
| Minimum modal bandwidth- length Product for overfilled launch | Wavelength 850 nm<br>Wavelength 1300 nm                                | 200 MHzkm<br>500 MHzkm                     |
| Other parameters meet standard                                | IEC 60793-2-10                                                         |                                            |

**Optical Cable Specification**

| Item                            | Specification                                                                                                                                                         |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Structure Parameter</b>      |                                                                                                                                                                       |
| Tight buffer                    | Material<br>PVC                                                                                                                                                       |
| Strength member                 | Outer diameter<br>0.85mm $\pm$ 0.05mm<br>Material<br>Aramid yarn                                                                                                      |
| Outer sheath                    | Sheath material<br>PVC<br>Sheath color<br>Orange(Pantone 164C) Chromatic aberration E: $\leq 4.0$<br>Min. sheath thickness<br>0.3mm<br>Dimension<br>2.0mm $\pm$ 0.1mm |
| <b>Transmission Performance</b> |                                                                                                                                                                       |
| Attenuation coefficient         | Wavelength 850m<br>$\leq 3.5 \text{ dB/km}$<br>Wavelength 1300nm<br>$\leq 1.5 \text{ dB/km}$                                                                          |
| <b>Other performances</b>       |                                                                                                                                                                       |
| Min. bending radius of work     | 30mm                                                                                                                                                                  |
| Other parameter meet standard   | IEC60794-2-50, YD/T1258.2                                                                                                                                             |

**Fiber Specification - SECTION OM3**

| Item                                         | Detail                                                                                                                       | Specification                                                                          |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Fiber type                                   | /                                                                                                                            | 50/125(OM3)                                                                            |
| Core diameter                                | Normal value<br>Tolerance                                                                                                    | 50 $\mu\text{m}$<br>$\pm 2.5 \mu\text{m}$                                              |
| Cladding diameter                            | Nominal<br>Tolerance                                                                                                         | 125.0 $\mu\text{m}$<br>$\pm 2 \mu\text{m}$                                             |
| Core-cladding concentricity error            |                                                                                                                              | $\leq 3 \mu\text{m}$                                                                   |
| Cladding non-circularity                     |                                                                                                                              | $\leq 2\%$                                                                             |
| Core non-circularity                         |                                                                                                                              | $\leq 6\%$                                                                             |
| Primary coating diameter (uncoloured)        | Nominal<br>Tolerance                                                                                                         | 245 $\mu\text{m}$<br>$\pm 10 \mu\text{m}$                                              |
| Primary coating-cladding concentricity error |                                                                                                                              | $\leq 12.5 \mu\text{m}$                                                                |
| Uncabled fiber macrobending loss             | Radius(mm)<br>Number of turns<br>Max. at 850 nm (dB)<br>Max. at 1300 nm (dB)                                                 | 15      7.5<br>2      2<br>0.1      0.2<br>0.3      0.5                                |
| Min. mode bandwidth                          | Overfilled launch bandwidth at 850nm<br>Overfilled launch bandwidth at 1300nm<br>Effective laser launch bandwidth at 850nm   | 1500 MHz. km<br>500 MHz. km<br>2000 MHz. km                                            |
| Min. proof stress                            |                                                                                                                              | 0.69 GPa                                                                               |
| Dynamic fatigue parameter                    |                                                                                                                              | $\leq 20$                                                                              |
|                                              | $\lambda_{0\text{min}}$<br>$\lambda_{0\text{max}}$                                                                           | 1295 nm<br>1340 nm                                                                     |
| Chromatic dispersion coefficient             | $S_{0\text{max}}$ (from 1295nm $\leq \lambda_0 \leq$ 1310nm)<br>$S_{0\text{max}}$ (from 1310nm $\leq \lambda_0 \leq$ 1340nm) | 0.105 ps/nm <sup>2</sup> ×km<br>0.000375(1590- $\lambda_0$ )<br>ps/nm <sup>2</sup> ×km |
| Other parameters meet standard               | IEC 60793-2-10                                                                                                               |                                                                                        |

**Optical Cable Specification**

| Item                            | Specification                                                                                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Structure Parameter</b>      |                                                                                                                                                               |
| Tight buffer                    | Material: LSZH<br>Outer diameter: 0.85mm $\pm$ 0.05mm                                                                                                         |
| Strength member                 | Material: Aramid yarn                                                                                                                                         |
| Outer sheath                    | Sheath material: LSZH<br>Sheath color: Aqua(Pantone 3248C) Chromatic aberration E: $\leq 4.0$<br>Min. sheath thickness: 0.3mm<br>Dimension: 2.0mm $\pm$ 0.1mm |
| <b>Transmission Performance</b> |                                                                                                                                                               |
| Attenuation coefficient         | Wavelength 850nm: $\leq 3.5$ dB/km<br>Wavelength 1300nm: $\leq 1.5$ dB/km                                                                                     |
| Macrobending loss               | Radius (mm): 15      7.5<br>Number of turns: 2      2<br>Max. at 850 nm (dB): 0.1      0.2<br>Max. at 1300 nm (dB): 0.3      0.5                              |
| <b>Other performances</b>       |                                                                                                                                                               |
| Min. bending radius of work     | 10mm                                                                                                                                                          |
| Other parameter meet standard   | IEC60794-2-50, YD/T1258.2                                                                                                                                     |



| PXF405 xx                                           | / | X                                                                                      | / | XX                                                                                                                                                                     |
|-----------------------------------------------------|---|----------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body Styles                                         |   | Cable Type                                                                             |   | Contact Type                                                                                                                                                           |
| PXF4050<br>PXF4051<br>PXF4053<br>PXF4054<br>PXF4055 |   | Blank = No cable<br>A = OS1 (Singlemode)<br>B = OM1 (Multimode)<br>C = OM3 (Multimode) |   | Blank = No cable<br>AA = 1 (1M on chassis version only PXF4053)<br>AA = 5<br>AB = 10<br>AC = 25<br>AD = 50<br>AE = 100<br>AF = 150<br>AG = 200<br>AH = 300<br>AJ = 450 |

Examples:

PXF4050 = Flex connector, no cable

PXF4050AAA = Flex connector, OS1 single mode cable, 5 metre length to LC type connector

PXF4053BAA = Panel mount connector, OM1 multi mode cable, 1 metre length to LC type connector