



- 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: OS1, OM1, OM3
- Cable range from 5 to 450m
- Diameter over coupling ring 19.7mm
- Flex, Inline 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

## Flex to LC Fiber Cable



PXF4050XXX

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



## Inline to LC Fiber Cable



PXF4051XXX

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

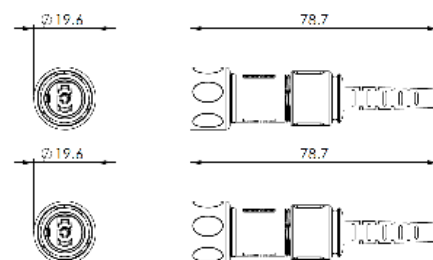


## Flex to Flex Fiber Cable



PXF4054XXX

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

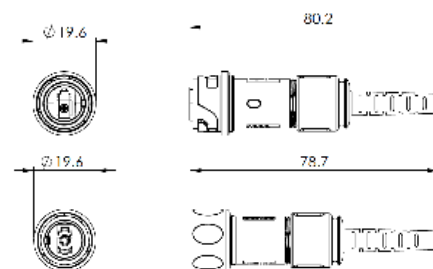


## Flex to Inline Fiber Cable



PXF4055XXX

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

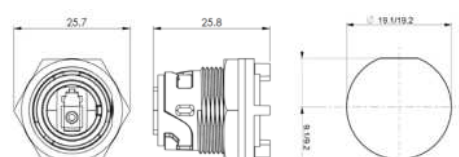


## Rear Panel Mounting Connector



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. |
|---------|--------------------------------------------------------------|

# CIRCULAR FIBER CONNECTORS

## 4000 Series - Simplex LC Fiber Buccaneer



### Flex Cable Connector



PXF4050

- Mates with Inline or Panel mounting versions PXF4051, PXF4053
- 30° turn locking ring
- Supplied without LC Connector



### Inline Cable Connector



PXF4051

- Mates with Flex Cable connector PXF4050
- For Inline connection
- Supplied without LC Connector

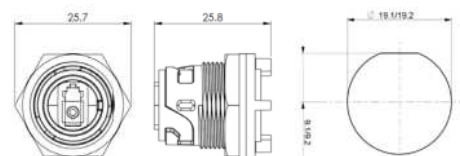


### Rear Panel Mounting Connector



PXF4053

- Mates with Flex Cable connector PXF4050
- Rear Panel Mounting
- Single hole fixing
- Supplied without LC Connector



### Sealing Caps



- Sealing caps to maintain IP rating when connectors are not in use

| 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/YL | Yellow coloured O-ring and washer pack |
| PXP4089/BL | Blue coloured O-ring and washer pack   |
| PXP4089/RD | Red coloured O-ring and washer pack    |
| PXP4089/WH | White coloured O-ring and washer pack  |
| PXP4089/GN | Green coloured O-ring and washer pack  |

# CIRCULAR FIBER CONNECTORS

## 4000 Series - Simplex LC Fiber Buccaneer



### 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>Operating temperature:<br>-25°C to +70°C<br>Salt Mist:<br>EN60068-2-52 Test Kb Salt Mist<br>(Cyclic) Marine Severity Level 1 |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Optical

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

#### Material:

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

|          |          |
|----------|----------|
| O Rings: | Silicone |
|----------|----------|

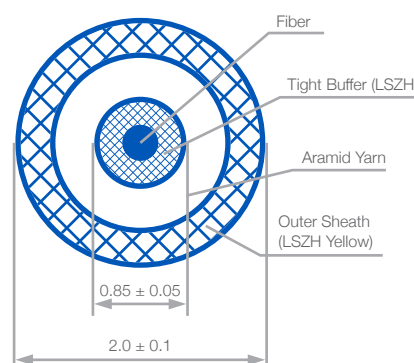
|                       |          |
|-----------------------|----------|
| Panel Sealing O Ring: | Silicone |
|-----------------------|----------|

RoHS Compliant

### Fiber Specification - SECTION OSI

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

#### Cable Construction (in mm):



### Optical Cable Specification

#### Structure Parameter

|                  |                       |                                                   |
|------------------|-----------------------|---------------------------------------------------|
| Tight buffer:    | Material              | LSZH (Low-Smoke Zero-Halogen)                     |
|                  | Outer diameter        | 0.85mm±0.05mm                                     |
| Strength member: | Material              | Aramid yarn                                       |
| Outer sheath:    | Sheath material       | LSZH (Low-Smoke Zero-Halogen)                     |
|                  | Sheath color          | Yellow(Pantone 136C) Chromatic aberration E: ≤4.0 |
|                  | Min. sheath thickness | 0.3mm                                             |
|                  | Dimension             | 2.0mm±0.1mm                                       |

#### Transmission Performance

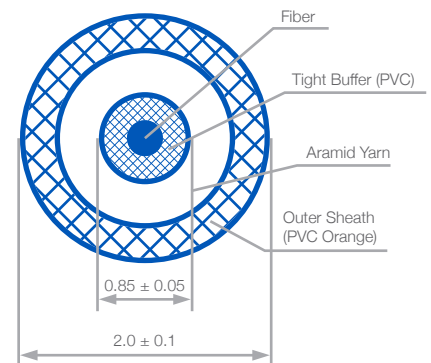
|                          |                                                                           |                                                                            |
|--------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Attenuation coefficient: | Wavelength 1310nm~1625nm<br>Maximum at 1383nm ±3nm<br>Wavelength 1550nm   | ≤0.4dB/km<br>≤0.4dB/km<br>≤0.3dB/km                                        |
| Macrobending loss        | Radius(mm)<br>Number of turns<br>Max. at 1550nm(dB)<br>Max. at 1625nm(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**

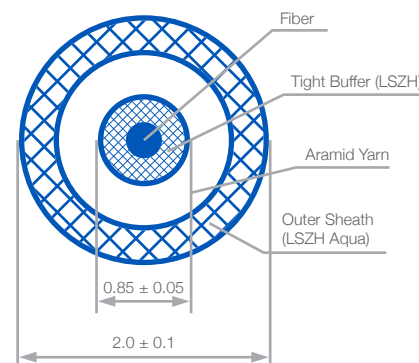
| Item                                            | Detail                                           | Specification                 |
|-------------------------------------------------|--------------------------------------------------|-------------------------------|
| Fiber type:                                     | /                                                | 62.5/125(A1b) (OM1)           |
| Core diameter:                                  | Dimension                                        | 62.5 $\mu$ m $\pm$ 3 $\mu$ m  |
| Cladding diameter:                              | Dimension                                        | 125.0 $\mu$ m $\pm$ 2 $\mu$ m |
| Core-cladding concentricity error:              |                                                  | $\leq$ 3 $\mu$ m              |
| Cladding non-circularity:                       |                                                  | $\leq$ 2%                     |
| Core non-circularity:                           |                                                  | $\leq$ 6%                     |
| Primary coating diameter (uncoloured):          | Dimension                                        | 245 $\mu$ m $\pm$ 10 $\mu$ m  |
| Primary coating-cladding : concentricity error: | Radius(mm)                                       | $\leq$ 12.5 $\mu$ m<br>37.5   |
| Uncabled fiber macrobending loss:               | Number of turns<br>At wavelengths 850nm & 1310nm | 100<br>0.5(dB)                |
| Min. proof stress:                              |                                                  | 0.69GPa                       |
| Dynamic fatigue parameter:                      |                                                  | $\geq$ 20                     |
| Minimum modal bandwidth- length:                | Wavelength 850nm                                 | 200MHzkm                      |
| Product for overfilled launch:                  | Wavelength 1310nm                                | 500MHzkm                      |
| Other parameters meet standard:                 | IEC 60793-2-10                                   |                               |

**Cable Construction (in mm):****Optical Cable Specification**

| Item                            | Specification                                                                                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Structure Parameter</b>      |                                                                                                                                                               |
| Tight buffer:                   | Material: PVC                                                                                                                                                 |
| Strength member:                | Outer diameter: 0.85mm $\pm$ 0.05mm<br>Material: Aramid yarn                                                                                                  |
| Outer sheath:                   | Sheath material: PVC<br>Sheath color: Orange(Pantone 164C) 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 850m: $\leq$ 3.5dB/km<br>Wavelength 1300nm: $\leq$ 1.5dB/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:                               | Dimension                                       | 50 $\mu$ m $\pm$ 2.5 $\mu$ m                           |     |
| Cladding diameter:                           | Dimension                                       | 125.0 $\mu$ m $\pm$ 2 $\mu$ m                          |     |
| Core-cladding concentricity error:           |                                                 | $\leq$ 3 $\mu$ m                                       |     |
| Cladding non-circularity:                    |                                                 | $\leq$ 2%                                              |     |
| Core non-circularity:                        |                                                 | $\leq$ 6%                                              |     |
| Primary coating diameter (uncoloured):       | Dimension                                       | 245 $\mu$ m $\pm$ 10 $\mu$ m                           |     |
| Primary coating-cladding concentricity error |                                                 | $\leq$ 12.5 $\mu$ m                                    |     |
| Uncabled fiber macrobending loss             | Radius(mm)                                      | 15                                                     | 7.5 |
|                                              | Number of turns                                 | 2                                                      | 2   |
|                                              | Max. at 850nm(dB)                               | 0.1                                                    | 0.2 |
|                                              | Max. at 1310nm(dB)                              | 0.3                                                    | 0.5 |
| Min. mode bandwidth:                         | Overfilled launch bandwidth at 850nm            | 1500MHz.km                                             |     |
|                                              | Overfilled launch bandwidth at 1310nm           | 500MHz.km                                              |     |
|                                              | Effective laser launch bandwidth at 850nm       | 2000MHz.km                                             |     |
| Min. proof stress:                           |                                                 | 0.69GPa                                                |     |
| Dynamic fatigue parameter:                   |                                                 | $\leq$ 20                                              |     |
| Chromatic dispersion coefficient:            | $\lambda$ 0min                                  | 1295nm                                                 |     |
|                                              | $\lambda$ 0max                                  | 1340nm                                                 |     |
|                                              | S0max(from1295nm $\leq\lambda$ 0 $\leq$ 1310nm) | 0.105ps/nm <sup>2</sup> ×km                            |     |
|                                              | S0max(from1310nm $\leq\lambda$ 0 $\leq$ 1340nm) | 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             |                                                  |     |
|--------------------------------|---------------------------|--------------------------------------------------|-----|
| Structure Parameter            |                           |                                                  |     |
| Tight buffer:                  | Material                  | LSZH                                             |     |
|                                | Outer diameter            | 0.85mm±0.05mm                                    |     |
| Strength member:               | Material                  | Aramid yarn                                      |     |
| Outer sheath:                  | Sheath material           | LSZH                                             |     |
|                                | Sheath color              | Aqua(Pantone 3248C) Chromatic aberration E: ≤4.0 |     |
|                                | Min. sheath thickness     | 0.3mm                                            |     |
|                                | Dimension                 | 2.0mm±0.1mm                                      |     |
| Transmission Performance       |                           |                                                  |     |
| Attenuation coefficient:       | Wavelength 850nm          | ≤3.5dB/km                                        |     |
|                                | Wavelength 1300nm         | ≤1.5dB/km                                        |     |
| Macrobending loss:             | Radius (mm)               | 15                                               | 7.5 |
|                                | Number of turns           | 2                                                | 2   |
|                                | Max. at 850nm(dB)         | 0.1                                              | 0.2 |
|                                | Max. at 1310nm(dB)        | 0.3                                              | 0.5 |
| Other performances             |                           |                                                  |     |
| Min. bending radius of work:   | 10mm                      |                                                  |     |
| Other parameter meet standard: | IEC60794-2-50, YD/T1258.2 |                                                  |     |

| PXF405 x                                            | / | X                                                                                      | / | XX                                                                                                                                                                        |
|-----------------------------------------------------|---|----------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body Styles                                         |   | Cable Type                                                                             |   | Cable Length (m)                                                                                                                                                          |
| 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<br>(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