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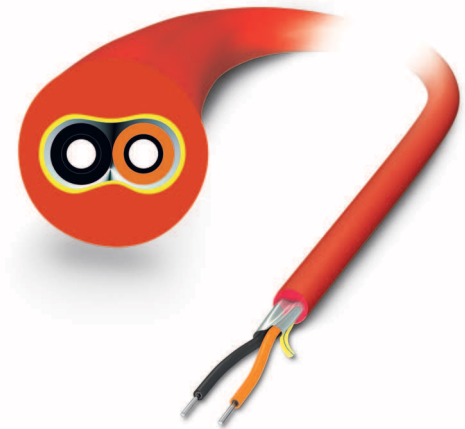
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# PSM-LWL-KDHEAVY-980/1000

**Polymer fiber cable, duplex 980/1000 µm,  
medium-weight version for fixed indoor installation**



Data sheet  
100330\_en\_02

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## 1 Description

The **PSM-LWL-KDHEAVY-980/100** fiber optic cable is a medium-weight round cable for fixed indoor installation.

### 1.1 Properties

- Universal installation cable for fixed indoor installation
- Polyurethane (PUR) outer sheath
- 2.2 mm single wires made from extremely hard-wearing polyamide (PA)
- Halogen-free, ozone and UV resistant

## 1.2 Structure

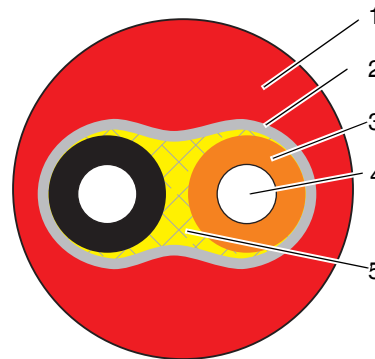


Figure 1 Cross section drawing

- 1 PUR outer sheath
- 2 PA sheath
- 3 Fibers
- 4 Separator (aluminum foil)
- 5 Strain relief



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This data sheet is valid for all products listed on the following page:

## 2 Ordering data

### Cables

| Description  | Type                      | Order No. | Pcs. / Pkt. |
|--|---------------------------|-----------|-------------|
| Polymer fiber cable, duplex, 980 µm/1000 µm, medium-weight version for fixed indoor installation, by the meter without plug                  | PSM-LWL-KDHEAVY-980/1000  | 2744319   | 1           |
| <b>Polymer fiber cable</b> , duplex 980/1000 µm, medium-weight version for fixed indoor installation, assembled with plugs (IP20 heads only) | FOC-KDHEAVY-1011/IP20/... | 2901553   | 1           |
| <b>Polymer fiber cable</b> , duplex 980/1000 µm, medium-weight version for fixed indoor installation, assembled with plugs                   | FOC-KDHEAVY-1011/...      | 1402188   | 1           |

### Accessories

| Description   | Type                       | Order No. | Pcs. / Pkt. |
|---|----------------------------|-----------|-------------|
| Fiber optic plug-in connector, SCRJ plug set for polymer fibers, consisting of two duplex quick mounting plugs with bend protection   | PSM-SET-SCRJ-DUP/2-POF     | 2708656   | 1           |
| <b>Fiber optic plug-in connector</b> , F-SMA plug set, for polymer fibers, consisting of four quick mounting plugs with bend protection   | PSM-SET-FSMA/4-KT          | 2799720   | 1           |
| <b>Polymer fiber assembly kit</b> , consisting of: stripping blade, stripping pliers, polishing wheels for F-SMA and SCRJ quick mounting plugs, polishing pad, and emery paper  | PSM-POF-KONFTOOL           | 2744131   | 1           |
| <b>Polymer fiber polishing set</b> , for F-SMA quick mounting plugs   | PSM-SET-FSMA-POLISH        | 2799348   | 1           |
| <b>Refilling set</b> , for VS-SCRJ-POF-POLISH, consisting of two polishing discs and a polisher   | VS-SCRJ-POF-POLISH         | 1656673   | 1           |
| <b>Stripping tool</b> , for removing cables (especially fiber optic cables) of Ø 4 mm ... 16 mm   | WIREFOX-D 16               | 1212173   | 1           |
| <b>Fiber optic measuring case</b> , consisting of an optical power meter, F-SMA and B-FOC adapters, reference fibers, and operating instructions  | PSM-FO-POWERMETER          | 2799539   | 1           |
| <b>Fiber optic measuring case supplementary set</b> , for devices with SCRJ interface, consisting of one-meter polymer reference fiber (SC Simplex to F-SMA plug), one-meter HCS GI reference fiber (SC Simplex to B-FOC plug), and SCRJ coupling | PSM-FO-POWERMETER SCRJ-SET | 2901560   | 1           |

## 3 Technical data

| General data             |                                 |
|--------------------------|---------------------------------|
| Cable type               | Polymer fiber, 980/1000 µm      |
| Cable abbreviation       | J-V11Y 4Y2P 980/1000 160A 10    |
| Cable length             | Free input (0.4 ... 100.0 m)    |
| Weight                   | 33 kg/km                        |
| Temperature range        |                                 |
| Installation             | -5°C ... +50°C                  |
| Operation                | -20°C ... +70°C                 |
| Storage                  | -40°C ... +80°C                 |
| Altitude                 | 5000 m                          |
| Fibers                   |                                 |
| Type                     | 980/1000 µm, step index profile |
| Material                 | PMMA                            |
| Attenuation              |                                 |
| At 650 nm                | ≤ 170 dB/km (monochromatic)     |
| At 660 nm                | ≤ 230 dB/km (LED)               |
| Bandwidth length product |                                 |
| At 650 nm                | ≥ 10 MHz x 100 m                |
| Numerical aperture       | 0.50                            |

**Single wires**

|               |  |
|---------------|--|
| Material      | Polyamide (PA)                               |
| Color         | Black and orange                             |
| Wire diameter | 2.2 mm ±0.07 mm                              |
| Stranding     | Two single elements wrapped in aluminum foil |

**Outer sheath**

|                        |  |
|------------------------|--|
| Material               | Polyurethane (PUR)   |
| Color                  | Red  |
| Diameter               | 6 mm ±0.5 mm   |
| Strain relief elements | Non-metallic, aramide yarn   |
| Imprint                | PHOENIX CONTACT FIBER OPTIC CABLE<br>J-V11Y 4Y2P 980/1000 160A 10 HEAVY<br>and running length specification in m,<br>date of manufacture |

**Mechanical properties according to IEC 60794-1-2**

|                            |                         | <b>Cables</b>  |                  | <b>Single wires</b>               |                |
|----------------------------|-------------------------|--|------------------|-----------------------------------|----------------|
| Bending radius             | Method E11, test type A | Temporary  | At least 30 mm   | Temporary                         | At least 30 mm |
|                            |                         | Permanent  | At least 30 mm   | Permanent                         | At least 20 mm |
| Tensile strength           | Method E1               | Temporary  | Maximum 600 N    | Temporary                         | Maximum 60 N   |
|                            |                         | Permanent  | Maximum 100 N    | Permanent                         | Maximum 10 N   |
| Lateral strength           | Method E3               | Temporary  | Maximum 200 N/cm |                                   |                |
|                            |                         | Permanent  | Maximum 20 N/cm  |                                   |                |
| Impact strength            | Method E4               | At least 2 Nm, 10°impacts                                    |                  |                                   |                |
| Resistance to abrasion     | Method E2, test type A  | At least 5000 cycles, 0.45 mm radius of the steel point, 7 N |                  |                                   |                |
| Roller change bending test | Method E8               |  |                  | At least 50,000 cycles, r = 20 mm |                |

**Material properties**

|                          |  |
|--------------------------|--|
| Resistance to oil        | IRM 902 100°C according to DIN VDE 0473-811-2-1  |
| Paint or varnish coating | Free from substances that would ruin a paint or varnish coating according to central standard P-VW 3.10.757 65 0 of VW, Audi, Seat |
| Halogen-free             | According to IEC 60754-2 A1  |
| Resistance to ozone      | According to DIN VDE 0472-805, test type B   |
| UV resistance            | According to DIN EN ISO 4892-2, method A   |
| Fire load                | 1.02 MJ/m (0.24 kWh/m)   |
| RoHS conformance         | Cable meets EU directive 2002/95/EC  |