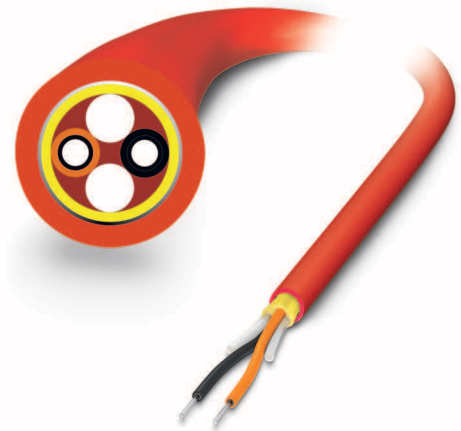


# PSM-LWL-RUGGED-980/1000

**Polymer fiber cable, duplex 980/1000  $\mu\text{m}$ , heavy version for fixed indoor installation**



Data sheet  
100331\_en\_02

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## 1 Description

The **PSM-LWL-RUGGED-980/100** fiber optic cable is a heavy round cable for fixed indoor installation.

### 1.1 Properties

- Robust installation cable for fixed indoor installation
- Designed to meet increased requirements in terms of tensile and lateral loads
- 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

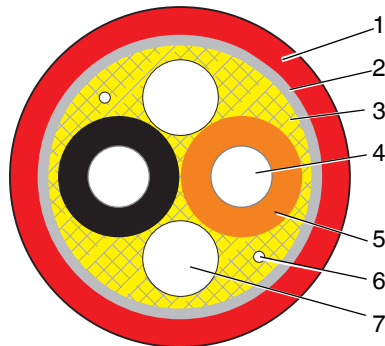


Figure 1 Cross section drawing

- 1 PUR outer sheath
- 2 Separator foil
- 3 Strain relief
- 4 Fibers
- 5 PA sheath
- 6 Tearing wire
- 7 Blind element



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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.
<b>Polymer fiber cable</b> , duplex 980/1000 µm, medium-weight version for fixed indoor installation, by the meter without plug	PSM-LWL-RUGGED-980/1000	2744322	1
<b>Polymer fiber cable</b> , duplex 980/1000 µm, medium-weight version for fixed indoor installation, assembled with plugs (IP20 heads only)	FOC-RUGGED-1012/IP20/...	2901548	1
<b>Polymer fiber cable</b> , duplex 980/1000 µm, medium-weight version for fixed indoor installation, assembled with plugs	FOC-RUGGED-1012/..	1402185	1

### Accessories

Description	Type	Order No.	Pcs. / Pkt.
<b>Fiber optic plug-in connector</b> , 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, 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	54 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 and two blind elements stranded and wrapped in fleece

**Outer sheath**

Material	Polyurethane (PUR)
Color	Red
Diameter	8 mm ±0.5 mm
Strain relief elements	Non-metallic, aramide yarn
Imprint	PHOENIX CONTACT FIBER OPTIC CABLE J-V11Y 4Y2P 980/1000 160A 10 RUGGED and running length specification in m, date of manufacture
Tearing wire	Two tearing wires beneath outer sheath

**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 65 mm
		Permanent	At least 65 mm
Tensile strength	Method E1	Temporary	Maximum 1000 N
		Permanent	Maximum 100 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	1.62 MJ/m (0.39 kWh/m)
RoHS conformance	Cable meets EU directive 2002/95/EC