



fiber optic cable series

POF Duplex 980/1000 μm

POF Duplex Polymer Optical Fibre Industrial Patch Cable

980/1000 μm PMMA Polymer Optical Fibre (POF) industrial duplex & drag-chain cable

980/1000 μm PMMA POF

Ø 2.2 mm Sub-Units

PUR Drag-Chain / Cabinet

Application

HITRONIC POF DUPLEX Polymer Optical Fibre Industrial Patch Cable with two 980/1000 μm step-index PMMA cores in Ø 2.2 mm PE sub-units, aramid yarn strain relief, and PUR or LSZH outer sheath for short-range (up to 70 m) PROFINET,.

Typical uses: CNC Machine Tool & SERCOS Motion Buses, PROFINET & Profibus Optical Patching, IGBT Power Stack & VFD Gate Isolation, Switchgear & Wind Turbine Control Panels, Automated Assembly & Robotics Cells

Construction



Cross-section, not to scale

- 1 980/1000 μm PMMA polymer optical fibre

IEC 60793-2-40 Category
A4a.2 step-index POF

- 2 Ø 2.2 mm colour-coded sub-unit buffers

- 3 Aramid yarn tensile reinforcement

Up to 400–600 N pulling
load protection

- 4 Outer PUR / LSZH jacket (or twin zipcord)

Technical data

Typical values

Galvanic isolation	100 % non-conductive polymer waveguide	Numerical aperture (NA)	0.50 (30° acceptance half-angle for 650 nm LEDs)
Max. link length	50 m (PROFINET 100 Mbps) · 70 m (Profibus / HFBR)	Operating temp (fixed)	-40 °C to +70 °C (+85 °C sub-unit short-term)
Operating temp (flexing)	-20 °C to +70 °C	Storage temperature	-40 °C to +80 °C
Core / cladding / buffer Ø	980 µm / 1000 µm / 2.2 mm ± 0.07 mm	Max. tensile load	120 N (zipcord) · 500 N (PUR/LSZH sheathed)
Crush resistance	600 N (zipcord) · 1,200 N/100 mm (PUR round)	Min. bend radius	25 mm (sub-unit) · 10 × OD (round jacket)
Attenuation @ 650 nm	≤ 160 dB/km (0.16 dB/m) at 25 °C	Bandwidth @ 650 nm	≥ 40 MHz × 100 m (step-index PMMA)
Operating wavelength	650 nm visible red (visual continuity check)	Oil & lubricant resistance	EN 60811-404 resistant on PUR outer jacket
Flame retardancy	IEC 60332-1-2 (PUR/LSZH)	Ambient light block	Carbon-pigmented Ø 2.2 mm sub-units prevent crosstalk
Standards	IEC 60793-2-40 Category A4a.2 (980/1000 POF)		

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Profile & jacket material	Outer Ø / W mm	Weight ≈ kg/km	Max. pull N	Min. bend R mm
980/1000 µm PMMA POF Duplex Cables 3 sizes					
☐ HITRONIC POF DUPLEX ZIP-PE	2×980/1000 POF · 2.2×4.4 mm PE Zipcord	4.4	8	120	25
☐ HITRONIC POF DUPLEX FD-PUR	2×980/1000 POF · Ø 6.8 mm Drag-Chain PUR	6.8	42	500	68
☐ HITRONIC POF DUPLEX PN-LSZH	2×980/1000 POF · Ø 6.8 mm Flame-Retardant LSZH	6.8	46	500	68

– Terminates with tool-free SC-RJ POF clamp plugs, HFBR-4501/4511 snap-in plugs, or FSMA connectors.

Standards and approvals

- ✓ IEC 60793-2-40 (980/1000 POF)
- ✓ PROFINET & SERCOS Compliant
- ✓ RoHS 2 & REACH Compliant

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/hitronic-pof-duplex-polymer-optical-fibre-industrial-patch-cable



Typical values for this cable type, based on IEC 60793-2-40 (A4a.2 POF) / IEC 61784-5-3. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.