

Application

- **Flexible terminating leads** such as pigtails, patchcords and test leads.
- Short distance applications for indoor use.

Key features

- These cables are based on excellent strippable semi-tight buffered optical fibres.
- All dielectric (metal-free) optical fibre leads permitting direct (detensioned) termination with connectors.
- These cables are halogen-free = FRNC (Flame-Retardant, Non Corrosive) and LSNH (Low Smoke, Non Halogen).
- **Predicted lifetime > 30 years.**

Construction & dimensions



Cable specifications (construction in accordance with IEC 60794)

1. Primary coated optical fibres: $\varnothing 250 \pm 15 \mu\text{m}$.
2. Dry Semi-tight buffer: $\varnothing 0.9 \pm 0.1 \text{ mm}$.
3. Aramid yarns as strength members.
4. **Yellow** halogen-free (FRNC/LSNH), **low-shrinkage** outer jacket.
Identification: to Diamonds specification + date-, meter-and P/N-marking.

Mechanical data

Cable-type	Simplex-DST (dry semi-tight)	
No. of fibres	1	
\varnothing nominal (mm)	2.8 ± 0.2	2.4 ± 0.2
Energy of flame (kJ/m)	95	81
Weight (kg/km)	5.5	4.5

Ordering information

Belden European Part Numbers

Fibre-type / Cable-type	62.5/125-OM1	50/125-OM2	50/125-OM2e	50/125-OM3	9/125-OS1
Std. colour	orange	orange	orange	orange	yellow
Simplex 2.4 mm					YE00026
Simplex 2.8 mm					YE00024
Std. reel (non-returnable)	plywood reel $\varnothing 500 * 261 \text{ mm}$, weight 3.25kg				
Std. del. length	2100 \pm 100 m				

Optical characteristics

Characteristics (cabled) Multi-Mode - Graded-Index optical fibres according to IEC 60793

Fibre-type	Size (μm)	Wavelength (nm)	Attenuation average/max. (dB/km)	Bandwidth (MHz \cdot km)	Ethernet Performance (m)		Refractive Index
					1GbE	10Gbe	
62.5/125 OM1	62.5 \pm 2.5	850	3.0 / 3.2	\geq 200	275	33	1.495
	125 \pm 1	1300	0.7 / 0.9	\geq 600	550	n.a.	1.490
50/125 OM2	50 \pm 2.5	850	2.6 / 2.8	\geq 600	550	82	1.481
	125 \pm 1	1300	0.6 / 0.9	\geq 1200	550	n.a.	1.476
50/125 OM2e	50 \pm 2.5	850	2,6 / 2,8	\geq 600	750	110	1,481
	125 \pm 1	1300	0,6 / 0,9	\geq 1200	2000	n.a.	1,476
50/125 OM3	50 \pm 2.5	850	2.6 / 2.8	\geq 1500	900	300	1.482
	125 \pm 1	1300	0.6 / 0.9	\geq 500	550	n.a.	1.477

Characteristics (cabled) Single-Mode - Matched-Cladded optical fibres according to ITU-G.652B

Fibre-type	Size (μm)	Wavelength (nm)	Attenuation average/max. (dB/km)	Dispersion (ps/(nm \cdot km))	PMD (ps/ \sqrt km)	Refractive Index
9/125-OS1 patchcord quality	9.2 \pm 0.4	1310	0.35 / 0.5	\leq 3.5		1.467
	125 \pm 1	1550	0.21 / 0.3	\leq 18	\leq 0.2	1.467

A test report (attenuation) is supplied with each delivery.

Mechanical, physical and/or environmental

Temperature range (for lengths \leq 100 m)

Transport/storage	- 30 to + 70 $^{\circ}\text{C}$
Installation	- 5 to + 50 $^{\circ}\text{C}$
Operation	- 5 to + 55 $^{\circ}\text{C}$

Strippability

Secondary coating only	\geq 100 cm
Secondary + primary coating	\geq 25 mm

Pulling tension according to IEC 60794-1-2-E1

Semi-tight buffer	\leq 3 N
Simplex cable	\leq 200 N
Duplex cable	\leq 400 N

Crush resistance according to IEC 60794-1-2-E3

Semi-tight buffer	\leq 4000 N/m
Simplex cable	\leq 5000 N/m
Duplex cable	\leq 10000 N/m

Bending radii for fibres and tight buffers

Installation/operation	$>$ 25 mm
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Bending radii cable

Static according to IEC 60794-1-2-E11	– 15 x \emptyset
Dynamic according to IEC 60794-1-2-E6	– 20 x \emptyset

Shrinkage according to IEC 60811-1-3: 0.7 %

Flame retardancy according to IEC 332-1

Halogen-free according to HD 602 (IEC 754-2)	
Corrosivity	pH \geq 3.5 - $\mu\text{S/cm}$ \leq 100

Guide to installation and handling

- When using Interconnection optical fibre cables it is vitally important not to exceed the specified values set for pulling tension, bending radii and temperature. The installation and termination methods have to be in accordance with the common standards.
- Interconnection optical fibre cables have been designed for short distance applications (tens of meters) inside buildings.

Options

- Non-standard cable constructions**, colours, details and/or additional information regarding specifications are available on request.