

Application

- **Flexible terminating leads** such as pigtails, patchcords and test leads.
- Support all computer network applications such as **FDDI, Gigabit Ethernet and ATM.**
- 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. Semi-tight buffer: $\varnothing 0.9 \pm 0.1 \text{ mm}$.
3. Aramid yarns as strength members.
4. Halogen-free (FRNC/LSNH) outer jacket.
Identification: BELDEN OFC – "cable type" – "number x type of fibre" + date-, meter-and P/N-marking.

Mechanical data

Cable-type	Simplex 2.1 mm	Simplex 2.4 mm	Simplex 2.8 mm
No. of fibres	1	1	1
\varnothing nominal (mm)	2.1 ± 0.2	2.4 ± 0.2	2.8 ± 0.2
Energy of flame (kJ/m)	76	83	128
Weight (kg/km)	4.2	4.5	7.1

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 2.1 mm					YE00126
Simplex 2.4 mm	YE00045				YE00023
Simplex 2.8 mm	GIPS101	GIPS201	GIPS401	GIPS301	GIPS901
Std. reel (non-returnable)	plywood reel $\varnothing 500 * 261 \text{ mm}$, weight 3.25kg				
Std. del. length	$2100 \pm 100 \text{ m}$				

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/ $\sqrt{\text{km}}$)	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 °C
Installation	- 5 to + 50 °C
Operation	- 5 to + 55 °C

Strippability

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

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

Semi-tight buffer	\leq 3 N
Simplex cable 2.1 mm	\leq 150 N
2.4/2.8 mm	\leq 200 N

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

Semi-tight buffer	\leq 4000 N/m
Simplex cable 2.1/2.4 mm	\leq 5000 N/m
2.8 mm	\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	$- 15 \times \varnothing$
Dynamic according to IEC 60794-1-2-E6	$- 20 \times \varnothing$

Halogen-free according to IEC 60754-2 (HD 602)

Corrosivity	$\text{pH} \geq 3.5 - \mu\text{S/cm} \leq 100$
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Flame retardancy according to IEC 60332-1

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.
- The primary and secondary coating are separated by means of a very thin layer of jelly. Consequently the strippability is very good. If necessary the jelly can be removed using a tissue soaked in turpentine, for example.
- 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.