

## Application

- Structured (premises) wiring systems: building backbone (riser) and/or **horizontal cabling (Fibre To The Desk)**.
- Support all computer network applications such as **FDDI, Gigabit Ethernet and ATM**.

## Key features

- These cables are **halogen-free** = FRNC (Flame-Retardant, Non Corrosive) and LSNH (Low Smoke, Non Halogen).
- These cables are **all dielectric** and therefore immune to lightning and electromagnetic interference (EMC-safe), spark-free and require no earthing.
- **Predicted lifetime > 30 years**.

## Construction & dimensions



### Cable specifications (construction in accordance with IEC 60794)

1. Primary coated optical fibres:  $\text{Ø } 280 \pm 15 \mu\text{m}$ .
2. Tight buffered fibres:  $\text{Ø } 0.9 \pm 0.1 \text{ mm}$ .  
Colour coding of the buffered fibres:  
white – red – blue – yellow – green – violet – brown – black – orange – turquoise – pink – grey  
of the fibres 1 – 12 the **secondary coating** is coloured  
of the fibres 13 – 24 the **primary coating is coloured** and the secondary coating is transparent.
3. Reinforced yarns as common strength members.
4. **Orange** halogen-free (FRNC/LSNH) outer jacket.  
Identification: BELDEN OFC – “cable type” – “number x type of fibre” + date-, meter- and P/N-marking.

### Mechanical data

No. of fibres	2	4	6	8	12	16	24
Ø nom. (mm)	4.0	4.8	5.3	5.3	7.0	8.0	9.0
Max. pulling tension (N)	400	400	450	450	500	500	600
Energy of flame (kJ/m)	227	294	339	351	619	886	1044
Weight (kg/km)	16	19	23	25	40	49	57

## Options

- Indoor Mini-Breakout cables with excellent strippable dry semi-tight buffered fibres.
- Intex Mini-Breakout cables for internal and external use.
- **Non-standard cable constructions**, colours, details and/or additional information regarding specifications are available on request.

## Optical Characteristics

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

Fibre-type	Size ( $\mu\text{m}$ )	Wavelength (nm)	Attenuation average/max. (dB/km)	Bandwidth (MHz $\cdot$ km)	Ethernet Performance (m)		Refractive Index
					1GbE	10Gbe	
<b>62.5/125</b> <b>OM1</b>	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
<b>50/125</b> <b>OM2</b>	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
<b>50/125</b> <b>OM2e</b>	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
<b>50/125</b> <b>OM3</b>	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

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

## Mechanical, physical and/or environmental

### Temperature range according to IEC 60794-1-2-F1

Transport/storage	- 30 to + 70 °C
Installation	- 5 to + 50 °C
Operation	- 5 to + 55 °C

### Strippability

Secondary coating only	$\leq$ 10 cm
Secondary + primary coating	$\leq$ 10 mm

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

See table with dimensions

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

Tight buffer	$\leq$ 4000 N/m
Cable	$\leq$ 4000 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 $\emptyset$

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

Corrosivity	pH $\geq$ 3.5 - $\mu\text{S/cm} \leq$ 100
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### Flame retardancy according to IEC 60332-2

## Guide to installation and handling

- When laying and installing optical fibre cables **it is vitally important not to exceed the specified values** set for pulling tension, bending radii and temperature. The installation methods have to be in accordance with the common standards.
- To ease insertion certified lubricants (e.g. paraffin) may be used.  
The use of soap or similar substances as lubricants is strictly prohibited.
- If a cable needs to be fastened, constrictions  $\geq$  0.3 mm must be prevented.

## Ordering information

### Belden European Part Numbers

Fibre-type/-count	<b>2</b>	<b>4</b>
62.5/125-OM1	GIMT102	GIMT104
50/125-OM2	GIMT202	GIMT204
50/125-OM2e	GIMT402	GIMT404
50/125-OM3	GIMT302	GIMT304
Std. reel (non-returnable)	plywood reel $\varnothing$ 560 * 336 mm, weight 4.25 kg	
Std. del. length	2100 $\pm$ 100 m	

Fibre-type/-count	<b>6</b>	<b>8</b>	<b>12</b>
62.5/125-OM1	GIMT106	GIMT108	GIMT112
50/125-OM2	GIMT206	GIMT208	GIMT212
50/125-OM2e	GIMT406	GIMT408	GIMT412
50/125-OM3	GIMT306	GIMT308	GIMT312
Std. reel (non-returnable)	plywood reel $\varnothing$ 800 * 475 mm, weight 7.65 kg		
Std. del. length	2100 $\pm$ 100 m		

Fibre-type/-count	<b>16</b>	<b>24</b>
62.5/125-OM1	GIMT116	GIMT124
50/125-OM2	GIMT216	GIMT224
50/125-OM2e	GIMT416	GIMT424
50/125-OM3	GIMT316	GIMT324
Std. reel (non-returnable)	plywood reel $\varnothing$ 1000 * 530 mm, weight 18 kg	
Std. del. length	2100 $\pm$ 100 m	