GIPT__1

Interconnect Cables
Indoor
I-V(ZN)H

Ordering Information

Belden European Part Numbers

Fibre type / diameter	1.6	1.8	2.0	2.1	2.4	2.8	3.0
62.5/125-OM1	GIPT1A1	GIPT1B1	GIPT1C1	GIPT1H1	GIPT1D1	GIPT1E1	GIPT1F1
50/125-OM2 BW 500/500	GIPT2A1	GIPT2B1	GIPT2C1	GIPT2H1	GIPT2D1	GIPT2E1	GIPT2F1
50/125-OM3	GIPT3A1	GIPT3B1	GIPT3C1	GIPT3H1	GIPT3D1	GIPT3E1	GIPT3F1
50/125-OM3 BI	GIPTDA1	GIPTDB1	GIPTDC1	GIPTDH1	GIPTDD1	GIPTDE1	GIPTDF1
50/125-OM4	GIPT6A1	GIPT6B1	GIPT6C1	GIPT6H1	GIPT6D1	GIPT6E1	GIPT6F1
50/125-OM4 BI	GIPTEA1	GIPTEB1	GIPTEC1	GIPTEH1	GIPTED1	GIPTEE1	GIPTEF1
9/125 ITU G.655	GIPT7A1	GIPT7B1	GIPT7C1	GIPT7H1	GIPT7D1	GIPT7E1	GIPT7F1
9/125 ITU G.657A1	GIPTAA1	GIPTAB1	GIPTAC1	GIPTAH1	GIPTAD1	GIPTAE1	GIPTAF1
9/125 ITU G.657A2	GIPTFA1	GIPTFB1	GIPTFC1	GIPTFH1	GIPTFD1	GIPTFE1	GIPTFF1
9/125 ITU G.657B3 (G652D compatible)	GIPTIA1	GIPTIB1	GIPTIC1	GIPTIH1	GIPTID1	GIPTIE1	GIPTIF1
Std. plastic reel (non-returnable)	∅ 500 * 265 mm weight 3.25 kg						
Std. delivery length	2100 ± 100m						

Applications

- **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.

Features & Benefits

- **All dielectric** (metal-free) optical fibre leads permitting **direct (detensioned) termination with connectors.**
- These cables are **halogen free (FRNC / LSNH)**
- **Predicted lifetime > 30 years**.

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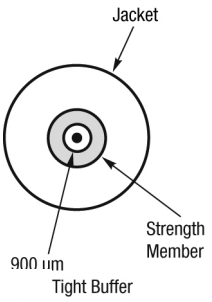
Construction & Dimensions



Cable Specifications (construction in accordance with IEC 60794)

1. Primary coated optical fibres: Ø 280 ± 15 µm.
2. FRNC / LSNH Tight buffer: Ø 0.90 ± 0.05 mm.
3. Aramid yarns as strength members.
4. **H**alogen-free (FRNC/LSNH) outer jacket.
   Identification: BELDEN OFC – ”cable type”– ”number x type of fibre” + date-, meter-and P/N-marking.

Mechanical Data

Diameter	1.6	1.8	2.0	2.1	2.4	2.8	3.0
Ø nom, out (mm)	1.6 ± 0.2	1.8 ± 0.2	2.0 ± 0.2	2.1 ± 0.2	2.4 ± 0.2	2 .8 ± 0.2	3.0 ± 0.2
Ø nom, in (mm)	1.3 ± 0.1	1.3 ± 0.1	1.3 ± 0.1	1.4 ± 0.1	1.8 ± 0.2	1 .8 ± 0.2	1.8 ± 0.2
Max. pulling tension (N)							
Long term	70	70	70	100	100	100	100
Short term	140	140	140	200	200	200	200
Weight (kg/km)	2.9	3.2	4.3	4.4	5.6	7.2	9.1
Energy of Flame (kJ/m)	53	57	64	69	78	93	104

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Optical Characteristics

Characteristics (cabled) Single-Mode – Matched-Cladded optical fibres according to ITU.

European Partnumber Coding, Position 5	Fibre-Type	Mode-Field /Cladding Diameter (um)	Wave-length (nm)	Attenuation average/ max. (dB/km)	Dispersion (ps/(nm-km)	PMD (ps/km)	Cable Cut-off Wave-length (nm)
7	**9/125 G.655**	8.4 ± 0.6 125 ± 1	1550	0.25 / 0.30	3.5 – 8.5	≤ 0.1[A]	≤ 1260
A	**9/125 G.657A1**	8.9 ± 0.4 124.8 ± 0.3	1310 1550 1625	0.35 / 0.5 0.21 / 0.3 0.24 / 0.4	≤ 3.5 ≤ 18	≤ 0.2	≤ 1260
F	**9/125 G.657A2**	8.9 ± 0.4 124.8 ± 0.3	1310 1550 1625	0.35 / 0.5 0.21 / 0.3 0.24 / 0.4	≤ 3.5 ≤ 18	≤ 0.2	≤ 1260
I	**9/125 G.657B3**	8.8 ± 0.4 125 ± 0.4	1310 1550 1625	0.35 / 0.5 0.22 / 0.3 0.24 / 0.4	≤ 3.5 ≤ 18	≤ 0.06	≤ 1260

Note A- Link design value

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

European Partnumber Coding, Position 5	Fibre-Type	Core/ Cladding Diameter (um)	Wave-length (nm)	Attenuation average/ max. (dB/km)	Bandwidth (MHz•km)	Ethernet Performance (m)		Num. Apert. (µm)
						1GBE	10 GBE	
1	**62.5/125 OM1**	62.5 ± 2.5 125 ± 1	850 1300	2.7 / 3.2 0.6 / 1.1	≥ 200 ≥ 600	275 550	33 n.a.	0.275 ± 0.015
2	**50/125 OM2**	50 ± 2.5 125 ± 1	850 1300	2.4 / 3.0 0.7 / 1.0	≥ 500 ≥ 500	600 600	82 n.a.	0.20 ± 0.015
3	**50/125 OM3**	50 ± 2.5 125 ± 1	850 1300	2.5 / 3.0 0.5 / 1.0	≥ 1500 ≥ 500	900 550	300 n.a.	0.20 ± 0.015
D	**50/125 OM3 Flex**	50 ± 2.5 125 ± 1	850 1300	2.5 / 3.0 0.5 / 1.0	≥ 1500 ≥ 500	900 550	300 n.a.	0.20 ± 0.015
6	**50/125 OM4**	50 ± 2.5 125 ± 1	850 1300	2.5 / 3.0 0.5 / 1.0	≥ 6000 ≥ 500	900 550	550 n.a.	0.20 ± 0.015
E	**50/125 OM4 Flex**	50 ± 2.5 125 ± 1	850 1300	2.5 / 3.0 0.5 / 1.0	≥ 6000 ≥ 500	900 550	550 n.a.	0.20 ± 0.015

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

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Maximum attenuation increase for Bend Insensitive Single Mode fibers in dB

European Partnumber Coding, Position 5	Fibre-Type	Wave-length (nm)	Attenuation increase max. @ 10 turns | 15mm radius (dB)	Attenuation increase max. @ 1 turn | 10mm radius (dB)	Attenuation increase max. @ 1 turn | 7.5mm radius (dB)	Attenuation increase max. @ 1 turn | 5mm radius (dB)
A	**9/125 G.657A1**	1550 1625	0.25 1.00	0.75 1.50		
F	**9/125 G.657A2**	1550 1625	0.03 0.10	0.10 0.20	0.50 1.00	
I	**9/125 G.657B3**	1550 1625		0.03 0.10	0.08 0.25	0.15 0.45

Maximum attenuation increase for Bend Insensitive Multi Mode fibers in dB

European Partnumber Coding, Position 5	Fibre-Type	Wave-length (nm)	Attenuation increase max. @ 2 turns | 15mm radius (dB)	Attenuation increase max. @ 2 turn | 7.5mm radius (dB)
D	**50/125 OM3 Flex**	850 1300	0.10 0.30	0.20 0.50
E	**50/125 OM4 Flex**	850 1300	0.10 0.30	0.20 0.50

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Mechanical, Physical and/or Environmental Characteristics

Requirements	
Temperature range according to IEC 60794-1-2-F1 Transport/storage Installation Operation	 -40 to + 70 ˚C -15 to + 50 ˚C -40 to + 70 ˚C
Pulling tension according to IEC 60794-1-2-E1 Tight buffer Simplex cable	 ≤ 3 N See table
Bending radii for fibres and tight buffers Installation/operation For Bend Insensitive fibres	 >25 mm see Optical Characteristics
Bending radii cable Static according to IEC 60794-1-2-E11 Dynamic according to IEC 60794-1-2-E6 For Bend Insensitive fibers:	 15 x Ø 20 x Ø See Optical Characteristics
Strippability Secondary coating only Secondary + primary coating	 ≤ 10 cm ≤ 10 mm
Crush resistance according to IEC 60794-1-2-E3 Tight Buffer Simplex cable	 ≤ 4000 N/ m ≤ 5000 N/m
Halogen-free according to IEC 60754-2 (EN 50267-2-2) Corrosivity	 pH ≥ 3.5 - µS/cm ≤ 100
Flame retardancy according to IEC 60332-1 (EN 60332-1)	Pass

Guide to installation and handling

- It is vitally important to not exceed the specified values.
- Interconnection optical fibre cables have been designed for short distance (≤ 10 m) applications inside buildings.

Options

- Semi-Tight Buffered fibres with excellent strippabillity.
- Non standard colours.

Revision

Rev.	Description	Date	Init.
02	Bending radii cable added	16/07/09	SN
03	OM3+ changed to OM4	12/10/09	JW
04	Inner diameter added	21/01/11	SN
05	Add 1383 and 1625 nm wavelength “8” fiber	07/08/12	SN
06	Updated with G.657A2 and G.657B3 fiber	10/10/13	TvR
07	Change temp.range	17/04/14	SN
08	Deleted G652D fiber; added bending radii for BI fibers	31/07/14	TvR

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