

## GIPS\_\_1

### Interconnect Cables Indoor I-K(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	GIPS1A1	GIPS1B1	GIPS1C1	GIPS1H1	GIPS1D1	GIPS1E1	GIPS1F1
50/125-OM2 BW 600/1200	GIPS2A1	GIPS2B1	GIPS2C1	GIPS2H1	GIPS2D1	GIPS2E1	GIPS2F1
50/125-OM3	GIPS3A1	GIPS3B1	GIPS3C1	GIPS3H1	GIPS3D1	GIPS3E1	GIPS3F1
50/125-OM2e	GIPS4A1	GIPS4B1	GIPS4C1	GIPS4H1	GIPS4D1	GIPS4E1	GIPS4F1
50/125-OM2 BW 500/500	GIPS5A1	GIPS5B1	GIPS5C1	GIPS5H1	GIPS5D1	GIPS5E1	GIPS5F1
50/125-OM4	GIPS6A1	GIPS6B1	GIPS6C1	GIPS6H1	GIPS6D1	GIPS6E1	GIPS6F1
9/125 ITU G.655	GIPS7A1	GIPS7B1	GIPS7C1	GIPS7H1	GIPS7D1	GIPS7E1	GIPS7F1
9/125 ITU G.652D	GIPS8A1	GIPS8B1	GIPS8C1	GIPS8H1	GIPS8D1	GIPS8E1	GIPS8F1
9.125 ITU G.657A	GIPSAA1	GIPSAB1	GIPSAC1	GIPSAH1	GIPSAD1	GIPSAE1	GIPSAF1
Std. plastic reel (non-returnable)	Ø 500 * 265 mm weight 3.25 kg						
Std. delivery length	2100 ± 100m						

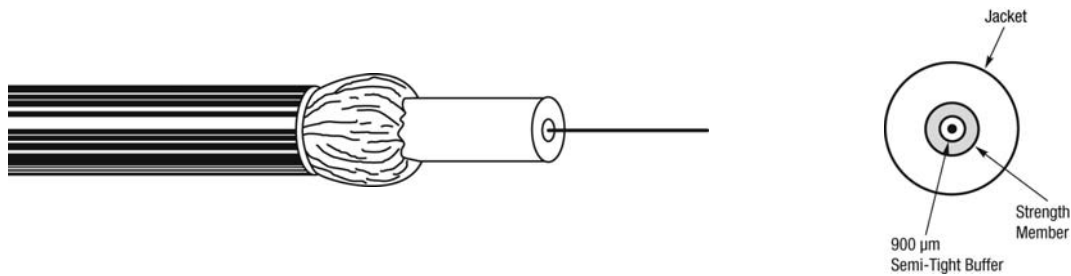
#### Applications

- **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

- 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 / LSNH)**
- **Predicted lifetime > 30 years**.

## Construction & Dimensions



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

1. Primary coated optical fibres:  $\varnothing 245 \pm 10 \mu\text{m}$ .
2. Dry FRNC / LSNH Semi-Tight buffer:  $\varnothing 0.90 \pm 0.1 \text{ mm}$ .
3. Aramid yarns as strength members.
4. **Yellow** (SM fibre) or **Orange** (MM fibre) halogen-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
$\varnothing$ nom, out (mm)	$1.6 \pm 0.2$	$1.8 \pm 0.2$	$2.0 \pm 0.2$	$2.1 \pm 0.2$	$2.4 \pm 0.2$	$2.8 \pm 0.2$	$3.0 \pm 0.2$
$\varnothing$ nom, in (mm)	$1.3 \pm 0.1$	$1.3 \pm 0.1$	$1.3 \pm 0.1$	$1.4 \pm 0.1$	$1.8 \pm 0.2$	$1.8 \pm 0.2$	$1.8 \pm 0.2$
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

## 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)
8	9/125 G.652D Patch cord quality	9.2 ± 0.4 125 ± 0.3	1310 1550	0.34 / 0.50 0.21 / 0.30	≤ 3.5 ≤ 18	≤ 0.2	≤ 1260
7	9/125 G.655	8.4 ± 0.6 125 ± 1	1550	0.25 / 0.30	3.5 – 8.5	≤ 0.1 <sup>A</sup>	≤ 1260
A	9/125 G.657A	8.9 ± 0.4 125 ± 0.3	1310 1550 1625	0.35 / 0.5 0.21 / 0.3 0.24 / 0.4	≤ 3.5 ≤ 18	≤ 0.2	≤ 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
5	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
2	50/125 OM2	50 ± 2.5 125 ± 1	850 1300	2.3 / 2.8 0.6 / 0.9	≥ 600 ≥ 1200	600 600	82 n.a.	0.20 ± 0.015
4	50/125 OM2e	50 ± 2.5 125 ± 1	850 1300	2.3 / 2.8 0.6 / 0.9	≥ 600 ≥ 1200	750 2000	110 na	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
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

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

## Mechanical, Physical and/or Environmental Characteristics

Requirements		
<b>Temperature range</b> according to IEC 60794-1-2-F1	Transport/storage	-30 to + 70 °C
	Installation	-5 to + 50 °C
	Operation	-5 to + 55 °C
<b>Pulling tension</b> according to IEC 60794-1-2-E1	Semi tight buffer	≤ 3 N
	Simplex cable	See table
<b>Bending radii for fibres and semi-tight buffers</b>		
Installation/operation		>25 mm
<b>Bending radii cable</b>		
Static according to IEC 60794-1-2-E11		15 x Ø
Dynamic according to IEC 60794-1-2-E6		20 x Ø
<b>Strippability</b>	Secondary coating only	≤ 30 cm
	Secondary + primary coating	≤ 10 mm
<b>Crush resistance</b> according to IEC 60794-1-2-E3	Semi-Tight Buffer	≤ 4000 N/ m
	Simplex cable	≤ 5000 N/m
<b>Halogen-free</b> according to IEC 60754-2 (EN 50267-2-2)	Corrosivity	pH ≥ 3.5 - µS/cm ≤ 100
<b>Flame retardancy</b> 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

- Tight Buffered fibres.
- 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
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