

## GIPS\_H

### Interconnect Cables Indoor – Heavy Duplex I-K(ZN)HH

#### 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	GIPS1AH	GIPS1BH	GIPS1CH	GIPS1HH	GIPS1DH	GIPS1EH	GIPS1FH
50/125-OM2 BW 600/1200	GIPS2AH	GIPS2BH	GIPS2CH	GIPS2HH	GIPS2DH	GIPS2EH	GIPS2FH
50/125-OM3	GIPS3AH	GIPS3BH	GIPS3CH	GIPS3HH	GIPS3DH	GIPS3EH	GIPS3FH
50/125-OM2e	GIPS4AH	GIPS4BH	GIPS4CH	GIPS4HH	GIPS4DH	GIPS4EH	GIPS4FH
50/125-OM2 BW 500/500	GIPS5AH	GIPS5BH	GIPS5CH	GIPS5HH	GIPS5DH	GIPS5EH	GIPS5FH
50/125-OM4	GIPS6AH	GIPS6BH	GIPS6CH	GIPS6HH	GIPS6DH	GIPS6EH	GIPS6FH
9/125 ITU G.655	GIPS7AH	GIPS7BH	GIPS7CH	GIPS7HH	GIPS7DH	GIPS7EH	GIPS7FH
9/125 ITU G.652D	GIPS8AH	GIPS8BH	GIPS8CH	GIPS8HH	GIPS8DH	GIPS8EH	GIPS8FH
9.125 ITU G.657A	GIPSAAH	GIPSABH	GIPSACH	GIPSAHH	GIPSADH	GIPSAEH	GIPSAFH
Std. plastic reel (non-returnable)	Ø 800 * 475 mm weight 14 kg						
Std. delivery length	2100 ± 100m						

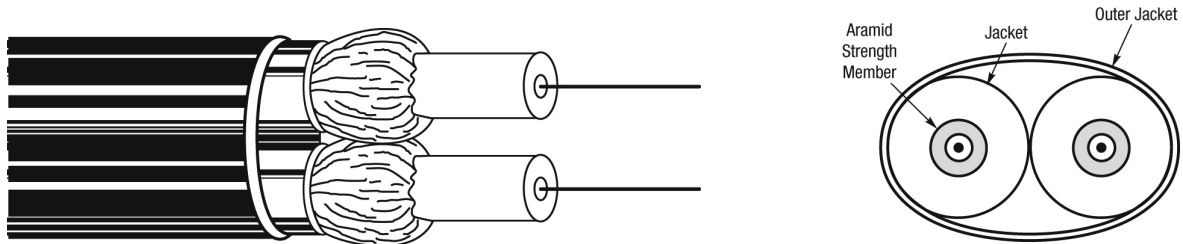
#### Applications

- **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) jacket.
5. **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. (mm)	2.6 x 4.3 $\pm 0.2$	2.8 x 4.7 $\pm 0.2$	3.0 x 5.1 $\pm 0.2$	3.1 x 5.3 $\pm 0.2$	3.4 x 5.9 $\pm 0.2$	3.8 x 6.7 $\pm 0.2$	4.0 x 7.1 $\pm 0.2$
Max. pulling tension (N)							
Long term	100	100	300	300	400	400	400
Short term	200	200	600	600	800	800	800
Energy of Flame (kJ/m)	365	370	379	395	422	455	487
Weight (kg/km)	17	18	21	24	29	34	39

## 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 Installation Operation	-30 to + 70 °C -5 to + 50 °C -5 to + 55 °C
<b>Pulling tension</b> according to IEC 60794-1-2-E1 Semi tight buffer Heavy Duplex cable	≤ 3 N See table Mechanical Data
<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 Dynamic according to IEC 60794-1-2-E6	10 x Ø 15 x Ø
<b>Strippability</b> Secondary coating only Secondary + primary coating	≤ 30 cm ≤ 10 mm
<b>Crush resistance</b> according to IEC 60794-1-2-E3 Semi-Tight Buffer Heavy Duplex cable	≤ 4000 N/ m ≤ 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 50265-2-1)	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
Date: 16/07/09		Page 1 of 1	
Orig.: SN		Review:	
		Part Number: <b>GIPS_H</b>	