BELDEN
SENDING ALL THE RIGHT SIGNALS

Technical Data Sheet

GOFB

Central Loose Tube Cables
Outdoor, Fiber Reinforced Plastic Armor (FRP)
A-DQB2Y

Full Rodent Protection

Ordering Information

Belden European Part Numbers

Fibre type / count	4	6	8	12	16	24
62.5/125-OM1	GOFB104	GOFB106	GOFB108	GOFB112	GOFB116	GOFB124
50/125-OM2 BW 600/1200	GOFB204	GOFB206	GOFB208	GOFB212	GOFB216	GOFB224
50/125-OM3	GOFB304	GOFB306	GOFB308	GOFB312	GOFB316	GOFB324
50/125-OM2e	GOFB404	GOFB406	GOFB408	GOFB412	GOFB416	GOFB424
50/125-OM2 BW 500/500	GOFB504	GOFB506	GOFB508	GOFB512	GOFB516	GOFB524
50/125-OM4	GOFB604	GOFB606	GOFB608	GOFB612	GOFB616	GOFB624
9/125 ITU G.655	GOFB704	GOFB706	GOFB708	GOFB712	GOFB716	GOFB724
9/125 ITU G.652D-OS2	GOFB804	GOFB806	GOFB808	GOFB812	GOFB816	GOFB824
Std. plywood reel (non-returnable)	Ø 1000 * 530mm 18 kg					
Std. delivery length	2100 ± 100m					

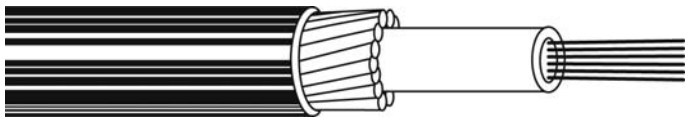
Applications

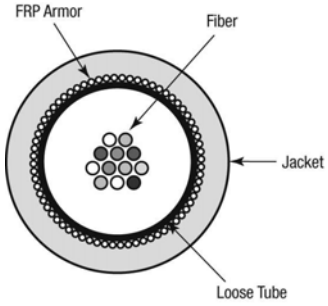
- For **outdoor** use in structured (data) wiring systems such as **industrial backbone,** campus backbone, building backbone (riser) and/or horizontal cabling.
- For **outdoor** use in networks for **industrial**, telecom, cable TV and/or broadcast.
- Suitable for **direct burial** and / or in ducts and trenches.

Features & Benefits

- **High mechanical and full rodent protection** provided by non-metallic Fiber Reinforced Plastic **(FRP)**
- These cables are **all dielectric** and therefore immune to lightning and electromagnetic interference (EMC-safe), spark-free and require no earthing.
- A simple (central tube) cable construction and consequently **more cost-effective up to 24** fibres then multi-tube cables with a Fiber reinforced plastic armor.
- **Predicted lifetime > 30 years.**

Construction & Dimensions





Cable Specifications (construction in accordance with IEC 60794)

1. Primary coated optical fibres: Ø 250 ± 15 um.
2. Central tube, jelly filled **(non-dripping and silicon-free)** with **up to 24 fibres.**
   Individually colour coded optical fibres:
   1 – 12: red – natural – yellow – blue – green – violet – brown – black – orange - turquoise – pink and white.
   13 – 24: red – natural – yellow – blue – green – violet – brown – grey – orange – turquoise – pink and white with rings.
3. Swellable tape for the **longitudinal watertightness.**
4. Fiber Reinforced Plastic armouring: helically stranded FRP of Ø 1.0 mm
5. Black UV resistant PE outer jacket.
   Identification: BELDEN OFC – "cable type" – number x type of fibre + date-, meter- and P/N marking.

Mechanical Data

No. of fibres	Max. 24
Ø Central tube (mm)	4.0
Ø Outer jacket, nom./max. (mm)	9.0 / 9.3
Energy of flame (kJ/m)	1108
Weight (kg/km)	76

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 OS2**	9.2 ± 0.4 125 ± 0.7	1310 1550	0.32 / 0.40 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[A]	≤ 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)	Refr. Index
						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	1.495 1.490
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	1.481 1.476
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	1.481 1.476
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	1,481 1,476
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	1.482 1.477
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	1.482 1.477

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

Mechanical, Physical and/or Environmental Characteristics

Requirements	
Temperature range according to IEC 60794-1-2-F1	
Tansport/storage	-30 to + 70 ˚C
Installation	-5 to + 50 ˚C
Operation	-30 to + 70 ˚C
Pulling tension according to IEC 60794-1-2-E1	
Long term	≤ 4000 N
Short term	≤ 8000 N
Bending radii for fibres and tubes	
Installation/operation	>25 mm
Watertightness according to IEC 60794-1-2-F5	Yes
Crush resistance according to IEC 60794-1-2-E3	≤ 30000 N/m
Bending radii cable	
Static according to IEC 60794-1-2-E11	10 x Ø
Dynamic according to IEC 60794-1-2-E6	20 x Ø

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 into tubes by means of compressed air or pulling wire, certified lubricants (e.g. paraffin) may be used. The use of soap or similar substances as lubricants is strictly prohibited.
- The jelly filling inside the tubes can be removed using a tissue soaked in turpentine.
- It is advisable to cap the cable-ends during storage.

Options

- **Non-standard cable constructions**, colours, details and/or additional information regarding specifications are available on request.

Revision

Rev.	Description	Date	Init.
02	OM3+ changed to OM4	12/10/09	JW
03	OS2 added	25/11/09	JW

Date: 15/08/08	Page 1 of 1	Part Number:
Orig.:	Review:	**GOFB**