BELDEN
SENDING ALL THE RIGHT SIGNALS

Technical Data Sheet

GOSN

Central Loose Tube Cables
Outdoor
A-DQ(ZN)B2Y

Standard Rodent Protection

Ordering Information

Belden European Part Numbers

Fibre type / count	2	4	6	8	12	16	24
62.5/125-OM1	GOSN102	GOSN104	GOSN106	GOSN108	GOSN112	GOSN116	GOSN124
50/125-OM2 BW	GOSN202	GOSN204	GOSN206	GOSN208	GOSN212	GOSN216	GOSN224
50/125-OM3	GOSN302	GOSN304	GOSN306	GOSN308	GOSN312	GOSN316	GOSN324
50/125-OM2e	GOSN402	GOSN404	GOSN406	GOSN408	GOSN412	GOSN416	GOSN424
50/125-OM2 BW 500/500	GOSN502	GOSN504	GOSN506	GOSN508	GOSN512	GOSN516	GOSN524
50/125-OM4	GOSN602	GOSN604	GOSN606	GOSN608	GOSN612	GOSN616	GOSN624
9/125 ITU G.655	GOSN702	GOSN704	GOSN706	GOSN708	GOSN712	GOSN716	GOSN724
9/125 ITU G.652D-OS2	GOSN802	GOSN804	GOSN806	GOSN808	GOSN812	GOSN816	GOSN824
Std. plywood reel (non-returnable)	Ø800*475mm 7.65 kg Ø1000*530mm 18.0 kg						
Std. delivery length	2100m ± 100m 4100m ± 100m						

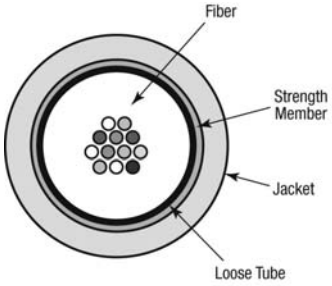
Applications

- For **outdoor** use in structured (data) wiring systems (**campus backbone)**
- For **outdoor** use in networks for telecom, cable TV and/or broadcast.
- Suitable for **direct burial**.
- Easy to install in ducts, tunnels and trenches.

Features & Benefits

- A simple cable construction and consequently **more cost-effective up to 24 fibres** then multi-tube cables. With standard or improved rodent protection.
- 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: 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 yarns as strength members and for the **longitudinal watertightness.**
4. 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)	3.2
nom./max. (mm)	5.8 / 6.1
Energy of flame (kJ/m)	762
Weight (kg/km)	28

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	Mode-Field 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	≤ 700 N
Short term	≤ 1500 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	
Central tube and cable	≤ 15000 N/m
Bending radii cable	10 x Ø
Static according to IEC 60794-1-2-E11	15 x Ø
Dynamic according to IEC 60794-1-2-E6	

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.
- If a cable needs to be fastened, constrictions > 0.3 mm must be prevented.
- 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

- Universal (halogen-free) cables for outdoor and/or indoor use.
- **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
04	Crush resistance increased	29/03/10	SN

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Orig.: SN	Review:	**GOSN**