

GORN

Central Loose Tube Cables

Outdoor

A-DQ(ZN)B2Y

Improved Rodent Protection, 1750N Permanent Load

Ordering Information

Belden European Part Numbers

Fibre type / count	2	4	6	8	12	16	24
62.5/125-OM1	GORN102	GORN104	GORN106	GORN108	GORN112	GORN116	GORN124
50/125-OM2 BW	GORN202	GORN204	GORN206	GORN208	GORN212	GORN216	GORN224
50/125-OM3	GORN302	GORN304	GORN306	GORN308	GORN312	GORN316	GORN324
50/125-OM2e	GORN402	GORN404	GORN406	GORN408	GORN412	GORN416	GORN424
50/125-OM2 BW 500/500	GORN502	GORN504	GORN506	GORN508	GORN512	GORN516	GORN524
50/125-OM4	GORN602	GORN604	GORN606	GORN608	GORN612	GORN616	GORN624
9/125 ITU G.655	GORN702	GORN704	GORN706	GORN708	GORN712	GORN716	GORN724
9/125 ITU G.652D	GORN802	GORN804	GORN806	GORN808	GORN812	GORN816	GORN824
Std. plywood reel (non-returnable)	Ø800*475mm 7.65 kg Ø1000*530mm 18.0 kg						
Std. delivery length	2100m ± 100m 4100m ± 100m						

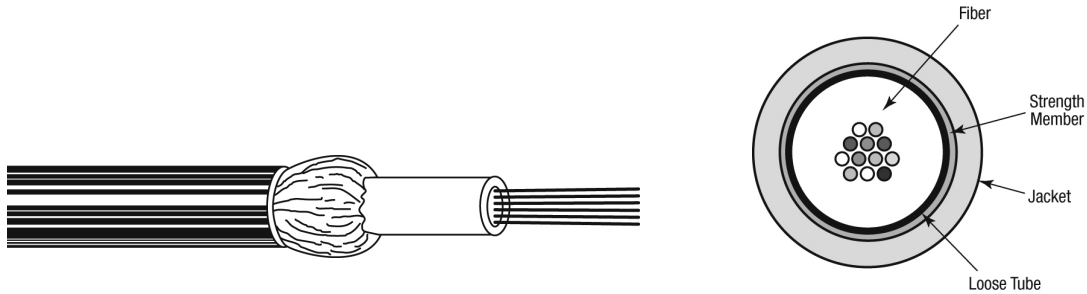
Applications

- 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** than 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: $\varnothing 250 \pm 15 \mu\text{m}$.
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 and the **improved rodent protection**.
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
\varnothing Central tube (mm)	3.3
nom./max. (mm)	7.1 / 7.4
Energy of flame (kJ/m)	1056
Weight (kg/km)	44

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	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 OM3+	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 Transport/storage Installation Operation	-30 to + 70 °C -5 to + 50 °C -30 to + 70 °C
Pulling tension according to IEC 60794-1-2-E1 Long term Short term	≤ 1750 N ≤ 3500 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	≤ 10000 N/m
Bending radii cable Static according to IEC 60794-1-2-E11 Dynamic according to IEC 60794-1-2-E6	10 x Ø 15 x Ø

Guide to installation and handling

- When laying and installing optical fibre cables it is **vitaly 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.
2.0	Change diameter of tube	22/11/2010	TvR
Date: 23/06/09		Page 1 of 1	
Orig.: SN		Review:	
		Part Number: GORN	