

GDDG

Multi Loose Tube Cables
Outdoor - Corrugated Steel Tape Armor (CST)
A-DF(ZN)2Y(SR)2Y
Full Rodent Protection

Ordering Information

Belden European Part Numbers

Fibre type / count	4	6	8	12	18	24	30	36
62.5/125-OM1	GDDG104	GDDG106	GDDG108	GDDG112	GDDG118	GDDG124	GDDG130	GDDG136
50/125-OM2 BW 600/1200	GDDG204	GDDG206	GDDG208	GDDG212	GDDG218	GDDG224	GDDG230	GDDG236
50/125-OM3	GDDG304	GDDG306	GDDG308	GDDG312	GDDG318	GDDG324	GDDG330	GDDG336
50/125-OM2e	GDDG404	GDDG406	GDDG408	GDDG412	GDDG418	GDDG424	GDDG430	GDDG436
50/125-OM2 BW 500/500	GDDG504	GDDG506	GDDG508	GDDG512	GDDG518	GDDG524	GDDG530	GDDG536
50/125-OM4	GDDG604	GDDG606	GDDG608	GDDG612	GDDG618	GDDG624	GDDG630	GDDG636
9/125 ITU G.655	GDDG704	GDDG706	GDDG708	GDDG712	GDDG718	GDDG724	GDDG730	GDDG736
9/125 ITU G.652D-OS2	GDDG804	GDDG806	GDDG808	GDDG812	GDDG818	GDDG824	GDDG830	GDDG836
Std. plywood reel (non-returnable)	Ø 1250 * 688 mm 93 kg							
Std. delivery length	2100 ± 100m							

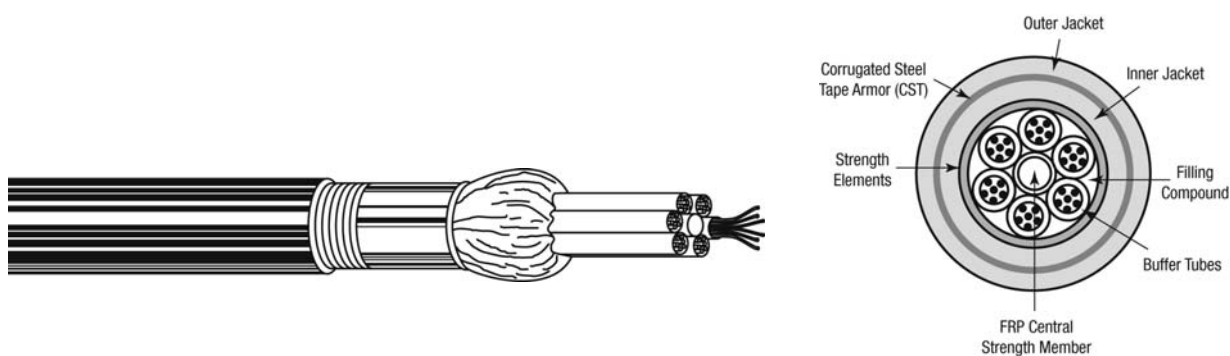
Applications

- For **outdoor** use in structured (data) wiring systems such as (**campus backbone**).
- For **outdoor** use in networks for telecom, cable TV and/or broadcast.
- Easy to install in ducts, tunnels and trenches by means of compressed air or pulling wire.
- Suitable for direct burial.

Features & Benefits

- **High mechanical and full rodent protection** provided by corrugated steel tape (**CST**) armor.
- **Predicted lifetime > 30 years.**

Construction & Dimensions



Cable Specifications (construction in accordance with IEC 60794)

1. Dielectric central element of glass reinforced plastic (GRP), also as protection against kinks.
2. Jelly filled (non-dripping and silicon-free) loose tubes with primary coated optical fibres ($\varnothing 250 \pm 15 \mu\text{m}$). Individually colour coded optical fibres: red – green – blue – yellow – violet – pink.
3. The loose tubes are stranded around the central element, if necessary with fillers (PE-natural).
Colour coding of the loose tubes: 1. red – 2. green – rest white.
4. Jelly filling compound between interstices, and PET foil over cable core.
5. Swellable (for the longitudinal watertightness) aramid yarns as strength members.
6. PE inner jacket.
7. Corrugated Steel Tape Armoring (CST): longitudinally applied steel tape (0.155 mm).
8. Black UV resistant PE outer jacket.
Identification: BELDEN OFC – “cable type” – “number x fibre type” + date-, meter- and P/N marking.

Mechanical Data

No. of fibres	Max. 36
Cable core	6 tubes
\varnothing Central element (mm)	2.0
\varnothing Loose tube (mm)	1.9
\varnothing nom./max. (mm)	13.0 / 13.3
Energy of flame (kJ/m)	4900
Weight (kg/km)	160

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 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	≤ 3000 N ≤ 4000 N
Bending radii for fibres and tubes Installation/operation	>25 mm
Watertightness (core + inner jacket) according to IEC 60794-1-2-F5	Yes
Crush resistance according to IEC 60794-1-2-E3 Armoured Central Loose Tube Cable	≤ 50 KN/m
Bending radii cable Static according to IEC 60794-1-2-E11 Dynamic according to IEC 60794-1-2-E6	15 x Ø 20 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

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

Revision

Rev.	Description	Date	Init.
02	Extended description watertightness, adjust max. Pulling tension (short-term)	22/03/10	SN
03	Changed energy and weight	22/11/10	TvR
Date: 03/02/10		Page 1 of 1	
Orig.: SN		Review:	
			Part Number: GDDG