BELDEN
SENDING ALL THE RIGHT SIGNALS

Technical Data Sheet

GOWN

Central Loose Tube Cables
Outdoor, Steel Wire Armor (SWA)
A-DQ(ZN)2YB2Y

Full Rodent Protection

Ordering Information

Belden European Part Numbers

Fibre type / count	2	4	6	8	12	16	24
62.5/125-OM1	GOWN102	GOWN104	GOWN106	GOWN108	GOWN112	GOWN116	GOWN124
50/125-OM2 BW	GOWN202	GOWN204	GOWN206	GOWN208	GOWN212	GOWN216	GOWN224
50/125-OM3	GOWN302	GOWN304	GOWN306	GOWN308	GOWN312	GOWN316	GOWN324
50/125-OM2e	GOWN402	GOWN404	GOWN406	GOWN408	GOWN412	GOWN416	GOWN424
50/125-OM2 BW 500/500	GOWN502	GOWN504	GOWN506	GOWN508	GOWN512	GOWN516	GOWN524
50/125-OM4	GOWN602	GOWN604	GOWN606	GOWN608	GOWN612	GOWN616	GOWN624
9/125 ITU G.655	GOWN702	GOWN704	GOWN706	GOWN708	GOWN712	GOWN716	GOWN724
9/125 ITU G.652D-OS2	GOWN802	GOWN804	GOWN806	GOWN808	GOWN812	GOWN816	GOWN824
Std. plywood reel (non-returnable)	Wooden reel Ø 1000 * 588 mm, 50 kg Wooden reel Ø 1400 * 900mm, 120 kg						
Std. delivery length	2100 ± 100m 4100 ± 100m						

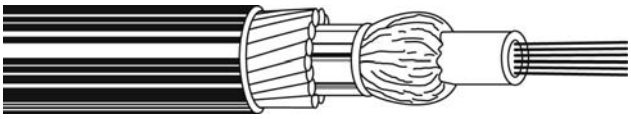
Applications

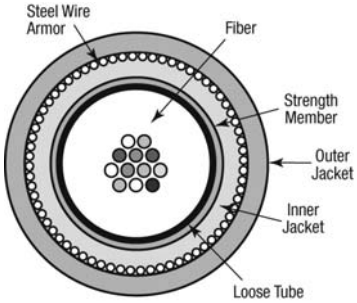
- For **outdoor** use in structured (data) wiring systems such as **industrial backbone,** campus backbone, building backbone (riser) and/or horizontal cabling..
- For **outdoor** use in networks for **industrial**, telecom, cable TV and/or broadcast.
- Suitable for **direct burial** and / or in ducts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

Features & Benefits

- **High mechanical and full rodent protection** provided by Steel Wire **Armor (SWA).**
- A simple (central tube) cable construction and consequently **more cost-effective up to 24** fibres then multi-tube cables with a Steel Wire Armouring.
- **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. PE inner jacket.
5. Steel Wire Armouring (SWA): helically stranded galvanized steel wires of Ø 0.6 mm
6. 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
Ø Inner jacket, nom./max. (mm)	5.8 / 6.1
Ø Outer jacket, nom./max. (mm)	9.6 / 9.9
Energy of flame (kJ/m)	2503
Weight (kg/km)	200

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	≤1400 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	≤ 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.
2.0	OM3+ changed to OM4	12/10/09	JW
3.0	OS2 added	25/11/09	JW
4.0	Extended description watertightness	22/03/10	SN

Date: 17/02/09	Page 1 of 1	Part Number:
Orig.: SN	Review:	**GOWN**