

GEAG

Multi Loose Tube Cables
Universal – Indoor / Outdoor
A/I-DF(ZN)H

Ordering Information

Belden European Part Numbers

Fibre type / count	4	6	8	12	18	24	30	36
62.5/125-OM1	GEAG104	GEAG106	GEAG108	GEAG112	GEAG118	GEAG124	GEAG130	GEAG136
50/125-OM2 BW 600/1200	GEAG204	GEAG206	GEAG208	GEAG212	GEAG218	GEAG224	GEAG230	GEAG236
50/125-OM3	GEAG304	GEAG306	GEAG308	GEAG312	GEAG318	GEAG324	GEAG330	GEAG336
50/125-OM2e	GEAG404	GEAG406	GEAG408	GEAG412	GEAG418	GEAG424	GEAG430	GEAG436
50/125-OM2 BW 500/500	GEAG504	GEAG506	GEAG508	GEAG512	GEAG518	GEAG524	GEAG530	GEAG536
50/125-OM4	GEAG604	GEAG606	GEAG608	GEAG612	GEAG618	GEAG624	GEAG630	GEAG636
9/125 ITU G.655	GEAG704	GEAG706	GEAG708	GEAG712	GEAG718	GEAG724	GEAG730	GEAG736
9/125 ITU G.652D-OS2	GEAG804	GEAG806	GEAG808	GEAG812	GEAG818	GEAG824	GEAG830	GEAG836
Std. plywood reel (non-returnable)	Ø 1000 * 530 mm 18 kg							
Std. delivery length	2100 ± 100m							

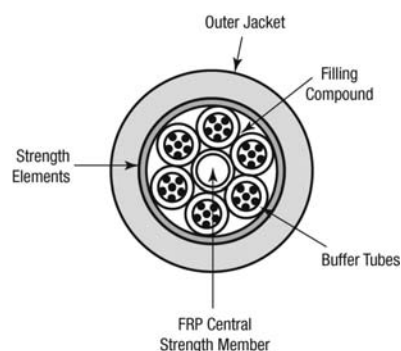
Applications

- For **outdoor and indoor** use in structured (data) wiring systems such as (**campus backbone**).
- For **outdoor and indoor** 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

- **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 ($\text{Ø } 250 \pm 15 \mu\text{m}$).
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. Black UV resistant FRNC/LSNH 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
Ø Central element (mm)	1.9
Ø Loose tube (mm)	1.9
Ø nom./max. (mm)	10.0 / 10.3
Energy of flame (kJ/m)	2400
Weight (kg/km)	103

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		-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		≤ 3000 N
Short term		≤ 6000 N
Bending radii for fibres and tubes		
Installation/operation		>25 mm
Watertightness according to IEC 60794-1-2-F5		Pass
Crush resistance according to IEC 60794-1-2-E3		
Cable		≤ 20 KN/m
Bending radii cable		
Static according to IEC 60794-1-2-E11		15 x Ø
Dynamic according to IEC 60794-1-2-E6		20 x Ø
Flame retardancy according to		
IEC 60332-3-22 (EN 50266-2-2)		Pass
IEC 61034 (EN 50268)		Pass
Halogen-free according to IEC 60754-2 (EN 50267-2-2)		
Corrosivity		pH ≥ 3.5 - µS/cm ≤ 100

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

Revision

Rev.	Description	Date	Init.
02	OS2 added	30/11/09	JW
03	Changed energy and weight	22/11/10	TvR
Date: 26/10/09		Page 1 of 1	
Orig.: SN		Review:	
			Part Number: GEAG