

GUXW

Mini-Breakout Cables (Distribution)
Universal – Indoor/ Outdoor, Steel Wire Armor (SWA)
A/I-VQ(ZN)HBH
 Full Rodent Protection

Ordering Information

Belden European Part Numbers

Fibre type / count	4	6	8	12	16	24
62.5/125-OM1	GUXW104	GUXW106	GUXW108	GUXW112	GUXW116	GUXW124
50/125-OM2 BW 600/1200	GUXW204	GUXW206	GUXW208	GUXW212	GUXW216	GUXW224
50/125-OM3	GUXW304	GUXW306	GUXW308	GUXW312	GUXW316	GUXW324
50/125-OM2e	GUXW404	GUXW406	GUXW408	GUXW412	GUXW416	GUXW424
50/125-OM2 BW 500/500	GUXW504	GUXW506	GUXW508	GUXW512	GUXW516	GUXW524
50/125-OM4	GUXW604	GUXW606	GUXW608	GUXW612	GUXW616	GUXW624
9/125 ITU G.655	GUXW704	GUXW706	GUXW708	GUXW712	GUXW716	GUXW724
9/125 ITU G.652D	GUXW804	GUXW806	GUXW808	GUXW812	GUXW816	GUXW824
9.125 ITU G.657A	GUXWA04	GUXWA06	GUXWA08	GUXWA12	GUXWA16	GUXWA24
Std. plywood reel (non-returnable)	Ø800*475mm 7.65 kg			Ø1000*530mm 18 kg		
Std. delivery length	2100 ± 100m					

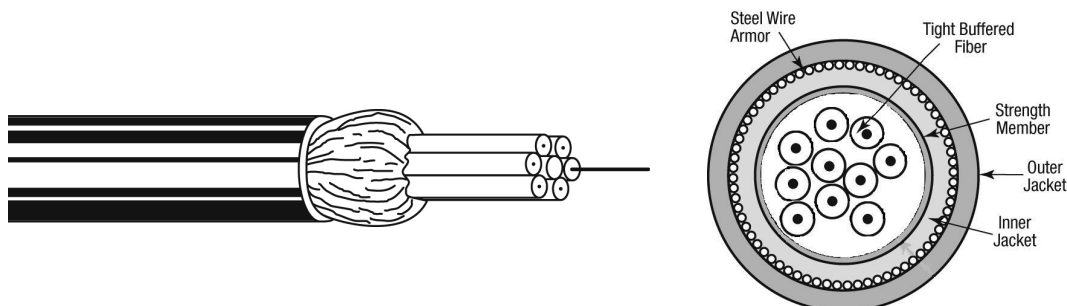
Applications

- Structured (premises) wiring systems: **campus and/or building backbone** (riser) and/or horizontal cabling.
- Support all computer network applications such as **FDDI, Gigabit Ethernet and ATM**.
- Easy to install** in ducts, tunnels and trenches. Not recommended for direct burial.

Features & Benefits

- These cables **are halogen-free** (= FRNC and LSNH) and watertight and therefore suitable for internal and external use. Consequently splicing can be avoided and the installation gets **more cost-effective**.
- High mechanical and full rodent protection provided by **Steel Wire Armor (SWA)**.
- Predicted lifetime > 30 years**.

Construction & Dimensions



Cable Specifications (construction in accordance with IEC 60794)

1. Swellable reinforced glassyarns as common strength members and for the longitudinal watertightness.
 2. Primary coated optical fibres: $\varnothing 280 \pm 15 \text{ um}$.
 3. Tight buffered fibres: $\varnothing 0.9 \pm 0.1 \text{ mm}$. Colour coding of the buffered fibres:
white – red – blue – yellow – green – violet – brown – black – orange – turquoise – pink – grey
The fibres 13 – 24 are ringmarked.
 4. Swellable glassyarns for longitudinal watertightness.
 5. Halogen-free inner jacket.
 6. Steel Wire Armouring (SWA): helical stranded galvanized steel wires of $\varnothing 0.9 \text{ mm}$
 7. Black halogen-free (FRNC/LSNH) outer jacket.
- Identification: BELDEN OFC – “cable type” – number x type of fibre + date-, meter- and P/N.

Mechanical Data

No. of fibres	4	6	8	12	16	24
$\varnothing \text{ nom. (mm)}$	10.8	11.1	11.1	13.4	14.0	14.6
Max. pulling tension (N)						
Long term	2000	2000	2000	3000	3500	4000
Short term	4000	4000	4000	6000	7000	8000
Energy of flame (kJ/m)	1052	1150	1177	1746	2082	2272
Weight (kg/km)	232	246	251	323	352	394

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 Patch cord quality	9.2 ± 0.4 125 ± 0.3	1310 1550	0.34 / 0.50 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
A	9/125 G.657A	8.9 ± 0.4 125 ± 0.3	1310 1550 1625	0.35 / 0.5 0.21 / 0.3 0.24 / 0.4	≤ 3.5 ≤ 18	≤ 0.2	≤ 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	Core/ Cladding Diameter (um)	Wave-length (nm)	Attenuation average/ max. (dB/km)	Bandwidth (MHz•km)	Ethernet Performance (m)		Num. Apert. (um)
						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
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
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
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
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
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

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	See table with dimensions
Bending radii for fibres and tubes Installation/operation	>25 mm
Strippability Secondary coating only Secondary + primary coating	≤ 10 cm ≤ 10 mm
Watertightness (core + inner jacket) according to IEC 60794-1-2-F5	Yes
Crush resistance according to IEC 60794-1-2-E3 Tight buffer Cable	≤ 4 kN/ m ≤ 30 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
Flame retardancy according to: IEC 60332-1 (EN 50265-2-1)	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 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.
- It is advisable to cap the cable-ends during storage.

Options

- Non-standard cable constructions with standard rodent protection, colours, details and/or additional information regarding specifications are available on request.

Revision

Rev.	Description	Date	Init.
Date: 08/09/11		Page 1 of 1	
Orig.: SN		Review:	
		Part Number: GUXW	