GUMT

Mini-Breakout Cables (Distribution)
Universal – Indoor/ Outdoor
A/I-VQ(ZN)H
Standard Rodent Protection

Ordering Information

Belden European Part Numbers

| Fibre type / count	4	6	8	12	16	24
62.5/125-OM1	GUMT104	GUMT106	GUMT108	GUMT112	GUMT116	GUMT124
50/125-OM2 BW 600/1200	GUMT204	GUMT206	GUMT208	GUMT212	GUMT216	GUMT224
50/125-OM3	GUMT304	GUMT306	GUMT308	GUMT312	GUMT316	GUMT324
50/125-OM2e	GUMT404	GUMT406	GUMT408	GUMT412	GUMT416	GUMT424
50/125-OM2 BW 500/500	GUMT504	GUMT506	GUMT508	GUMT512	GUMT516	GUMT524
50/125-OM4	GUMT604	GUMT606	GUMT608	GUMT612	GUMT616	GUMT624
9/125 ITU G.655	GUMT704	GUMT706	GUMT708	GUMT712	GUMT716	GUMT724
9/125 ITU G.652D	GUMT804	GUMT806	GUMT808	GUMT812	GUMT816	GUMT824
9.125 ITU G.657A	GUMTA04	GUMTA06	GUMTA08	GUMTA12	GUMTA16	GUMTA24
Std. plywood reel (non-returnable)	Ø560*336mm 4.25 kg	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.**
- These cables are all **dielectric** (metal-free).
- **Predicted lifetime > 30 years.**

Construction & Dimensions
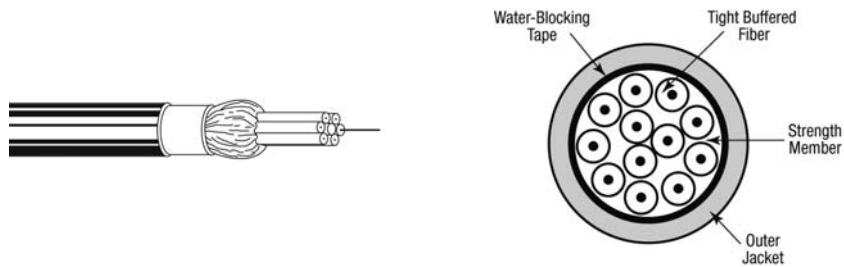
Cable Specifications (construction in accordance with IEC 60794)

1. Swellable reinforced yarns as common strength members and for the longitudinal watertightness.

2. Primary coated optical fibres: Ø 280 ± 15 um.

3. Tight buffered fibres: Ø 0.9 ± 0.1 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 tape.

5. Halogen-free (FRNC/LSNH) outer jacket.
   Identification: BELDEN OFC – "cable type" – "number x type of fibre" +date-, meter- and P/N-marking.

Mechanical Data

No. of fibres	4	6	8	12	16	24
Ø nom. (mm)	5.4	5.9	5.9	7.6	8.6	9.6
Max. pulling tension (N)						
Long term	400	450	450	500	500	600
Short term	800	900	900	1000	1000	1200
Energy of flame (kJ/m)	296	347	371	622	845	1082
Weight (kg/km)	26	30	32	45	53	65

Optical Characteristics

Characteristics (cabled) Single-Mode – Matched-Cladded optical fibres according to ITU.

European Partnumber Coding, Position 5	Fibre-Type	Mode-Field /CladdingDiameter (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. (µm)
						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	
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	See table with dimensions
Bending radii for fibres and tubes	
Installation/operation	>25 mm
Strippability	
Secondary coating only	≤ 10 cm
Secondary + primary coating	≤ 10 mm
Watertightness according to IEC 60794-1-2-F5	Yes
Crush resistance according to IEC 60794-1-2-E3	
Tight buffer	≤ 4000 N/ m
Cable	≤ 4000 N/ 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 60332-2 (EN 50265-2-2)	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 **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 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

- Indoor Mini-Breakout cables with tight buffered fibres or with excellent strippable dry semi-tight buffered fibres.
- Non-standard cable constructions with improved rodent protection, colours, details and/or additional information regarding specifications are available on request.

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Revision

Rev.	Description	Date	Init.
02	OM3+ changed to OM4	12/10/09	JW
03	Deleted jacket colour	24/08/10	TvR

Date: 07/07/08	Page 1 of 1	Part Number:
Orig.: SN	Review:	**GUMT**