

## Fiber Types

### Tight Buffer Optical Characteristics

European Part Number Coding, Position 5	Fiber-Type	Mode-Field/ Cladding Diameter (μm)	Wave-length (nm)	Attenuation Average/max. (dB/km)	Dispersion (ps/nm-km)	PMD (ps/km)	Cable Cut-off Wave-length (nm)	Min. Bending Radius (mm)
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#### Characteristics (cabled) Single-Mode • Matched-Cladded Optical Fibers according to ITU

<b>A</b>	9/125 G.657A1 OS2	8,9 ± 0,4 125,0 ± 0,3	1310 1550 1625	0,35/0,4 0,21/0,3 0,24/0,4	≤ 3,5 ≤ 18,0	≤ 0,2 <sup>A</sup>	≤ 1260	10
<b>F</b>	9/125 G.657A2 OS2	8,9 ± 0,4 125,0 ± 0,3	1310 1550 1625	0,35/0,4 0,21/0,3 0,24/0,4	≤ 3,5 ≤ 18,0	≤ 0,2 <sup>A</sup>	≤ 1260	7,5
<b>I</b>	9/125 G.657B3 OS2	8,8 ± 0,4 125,0 ± 0,3	1310 1550 1625	0,35/0,4 0,22/0,3 0,24/0,4	≤ 3,5 ≤ 18,0	≤ 0,2 <sup>A</sup>	≤ 1260	5,0

Note A: Link design value

European Part Number Coding, Position 5	Fiber-Type	Core/Cladding Diameter (μm)	Wave-length (nm)	Attenuation Average/max. (dB/km)	Bandwidth (MHz/km)	Ethernet Performance (m)		Num. Apert. (μm)	Min. Bending Radius (mm)
						1 GBE	10 GBE		

#### Characteristics (cabled) Multi-Mode • Graded-Index Optical Fibers according to IEC 60793

<b>1</b>	62,5/125 OM1	62,5 ± 2,5 125,0 ± 1,0	850 1300	2,7/3,2 0,6/1,1	≥ 200 ≥ 600	275 550	33 300	0,275 ± 0,015	25
<b>2</b>	50/125 OM2	50,0 ± 2,5 125,0 ± 1,0	850 1300	2,4/3,0 0,7/1,0	≥ 500 ≥ 500	600 600	82 300	0,200 ± 0,015	25
<b>3</b>	50/125 OM3	50,0 ± 2,5 125,0 ± 1,0	850 1300	2,5/3,0 0,5/1,0	≥ 1500 ≥ 500	900 550	300 300	0,200 ± 0,015	25
<b>D</b>	50/125 OM3 Flex	50,0 ± 2,5 125,0 ± 1,0	850 1300	2,5/3,0 0,5/1,0	≥ 1500 ≥ 500	900 550	300 300	0,200 ± 0,015	7,5
<b>6</b>	50/125 OM4	50,0 ± 2,5 125,0 ± 1,0	850 1300	2,5/3,0 0,5/1,0	≥ 6000 ≥ 500	900 550	550 300	0,200 ± 0,015	25
<b>E</b>	50/125 OM4 Flex	50,0 ± 2,5 125,0 ± 1,0	850 1300	2,5/3,0 0,5/1,0	≥ 6000 ≥ 500	900 550	550 300	0,200 ± 0,015	7,5



## Fiber Types

### Loose Tube Optical Characteristics

European Part Number Coding, Position 5	Fiber-Type	Mode-Field/ Cladding Diameter (μm)	Wave-length (nm)	Attenuation average/max. (dB/km)	Dispersion (ps/nm-km)	PMD (ps/km)	Cable Cut-off Wave-length (nm)
<b>Characteristics (cabled) Single-Mode • Matched-Cladded Optical Fibers according to ITU</b>							
<b>8</b>	9/125 G.652D OS2	9,2 ± 0,4 125,0 ± 0,7	1310 1550	0,32/0,40 0,19/0,22	≤ 3,5 ≤ 18,0	≤ 0,2 <sup>A</sup>	≤ 1260
<b>7</b>	9/125 G.655 C & D	8,4 ± 0,6 125,0 ± 1,0	1550	0,25/0,30	3,5 – 8,5	≤ 0,1 <sup>A</sup>	≤ 1260

Note A: Link design value

European Part Number Coding, Position 5	Fiber-Type	Core/ Cladding Diameter (μm)	Wave-length (nm)	Attenuation average/max. (dB/km)	Bandwidth (MHz/km)	Ethernet Performance (m)		Num. Apert. (μm)	Refractive Index
						1 GBE	10 GBE		
<b>1</b>	62,5/125 OM1	62,5 ± 2,5 125,0 ± 1,0	850 1300	2,7/3,2 0,6/1,1	≥ 200 ≥ 600	275 550	33 300	0,275 ± 0,015	1,495 1,490
<b>2</b>	50/125 OM2	50,0 ± 2,5 125,0 ± 1,0	850 1300	2,4/3,0 0,7/1,0	≥ 500 ≥ 500	600 600	82 300	0,200 ± 0,015	1,481 1,476
<b>3</b>	50/125 OM3	50,0 ± 2,5 125,0 ± 1,0	850 1300	2,5/3,0 0,5/1,0	≥ 1500 ≥ 500	900 550	300 300	0,200 ± 0,015	1,482 1,477
<b>6</b>	50/125 OM4	50,0 ± 2,5 125,0 ± 1,0	850 1300	2,5/3,0 0,5/1,0	≥ 6000 ≥ 500	900 550	550 300	0,200 ± 0,015	1,482 1,477

## Outdoor Multi Loose Tube Cable with All Dielectric Self Supporting, Single Jacket

GAAG, GAAD, GAAE, GAAF

A-DQ(ZN)2Y(T)



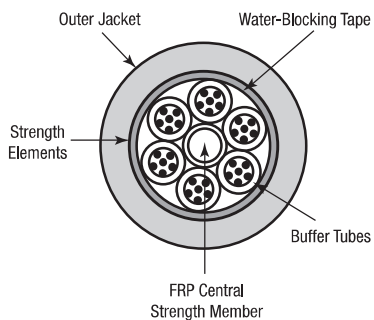
### Applications

- All Dielectric Self Supporting cable (ADSS) for Outdoor use
- Suitable for installation between poles with a maximum span of 150 meters for GAAG, GAAD and GAAE, and 110 meter for GAAF
- Initial sag at 20°C: 1% of span

### Features & Benefits

- Available in sizes from 6 to 144 fibers
- Jelly filled (non-dripping and silicon-free) loose tubes with primary coated optical fibres ( $\varnothing 250 \pm 15 \mu\text{m}$ )
- Full dielectric construction, no grounding required
- Aramid yarns for tensile strength
- Installation-friendly because of the cable core kept free of grease (dry interstices)
- Length marking in meters for easy

### Cross Section



### Specifications

IEC 60794-1-2	
Crush Resistance (E3):	20 kN/m
Min. Bend Radius dynamic (E6):	20 x $\varnothing$
Min. Bend Radius static (E11):	15 x $\varnothing$
Min. Bend Radius fibers:	25 mm
Temperature Range (F1):	
– Transport/Storage	-30°C to +70°C
– Installation	-5°C to +50°C
– Operation	-30°C to +70°C
Watertightness (F5):	Pass



### Characteristics

Loose Tube	Fiber Count	Diameter Tube (mm)	Max. Fibers per Tube	Water Tightness in Core	Diameter (mm)	Weight (kg/km)	Tensile Strength (short term) N	Tensile Strength (permanent) N	Fire Load (kJ/m)
IEC 60794-1-2							E1	E1	
GAAG*xx	6 to 36	1,9	6	Dry	10,3	72	6000	3000	3000
GAAD*xx	12 to 72	2,5	12	Dry	12,2	99	7000	3500	4000
GAAE*xx	84 to 96	2,5	12	Dry	13,8	132	8000	4000	4400
GAAF*xx	108 to 144	2,5	12	Dry	17,0	192	8000	4000	8000

### Ordering Information

Fiber Type/Count	Dry Core				
	6	12	18	24	36
62.5/125-OM1	GAAG106	GAAG112	GAAG118	GAAG124	GAAG136
50/125-OM2 BW 600/1200	GAAG206	GAAG212	GAAG218	GAAG224	GAAG236
50/125-OM3	GAAG306	GAAG312	GAAG318	GAAG324	GAAG336
50/125-OM4	GAAG606	GAAG612	GAAG618	GAAG624	GAAG636
9/125 ITU G.652D	GAAG806	GAAG812	GAAG818	GAAG824	GAAG836
9/125 ITU G.655 C&D	GAAG706	GAAG712	GAAG718	GAAG724	GAAG736
Std. plywood reel (non-returnable)	Ø 1250 x 688 mm, Weight 93,0 kg				
Std. delivery length	2100 ± 100 m				

Fiber Type/Count	Dry Core					
	12	24	36	48	60	72
62.5/125-OM1	GAAD112	GAAD124	GAAD136	GAAD148	GAAD160	GAAD172
50/125-OM2 BW 600/1200	GAAD212	GAAD224	GAAD236	GAAD248	GAAD260	GAAD272
50/125-OM3	GAAD312	GAAD324	GAAD336	GAAD348	GAAD360	GAAD372
50/125-OM4	GAAD612	GAAD624	GAAD636	GAAD648	GAAD660	GAAD672
9/125 ITU G.652D	GAAD812	GAAD824	GAAD836	GAAD848	GAAD860	GAAD872
9/125 ITU G.655 C & D	GAAD712	GAAD724	GAAD736	GAAD748	GAAD760	GAAD772
Std. plywood reel (non-returnable)	Ø 1250 x 688 mm, Weight 93,0 kg					
Std. delivery length	2100 ± 100 m					

Fiber Type/Count	Dry Core					
	84	96	108	120	132	144
62.5/125-OM1	GAAE184	GAAE196	GAAF108	GAAF120	GAAF132	GAAF144
50/125-OM2 BW 600/1200	GAAE284	GAAE296	GAAF208	GAAF220	GAAF232	GAAF244
50/125-OM3	GAAE384	GAAE396	GAAF308	GAAF320	GAAF332	GAAF344
50/125-OM4	GAAE684	GAAE696	GAAF608	GAAF620	GAAF632	GAAF644
9/125 ITU G.652D	GAAE884	GAAE896	GAAF808	GAAF820	GAAF832	GAAF844
9/125 ITU G.655 C & D	GAAE784	GAAE796	GAAF708	GAAF720	GAAF732	GAAF744
Std. plywood reel (non-returnable)	Ø 1400 x 900 mm, Weight 120,0 kg					
Std. delivery length	2100 ± 100 m					

### Fiber Color Coding

No.	
1	Red
2	Green
3	Blue

No.	
4	Yellow
5	Violet
6	Pink

No.	
7	Orange
8	Black
9	Grey

No.	
10	Brown
11	White
12	Aqua

### Tube Color Coding

No.	
1	Red
2	Green
3-12	White