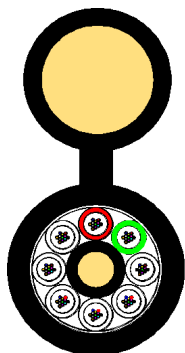


## Optical fibre cables for aerial installation

### Cable Design

Acc. to IEC 60794-3-10



- not to scale -

- **Central Strength Member (CSM):** glass fibre reinforced plastic rod (FRP), with plastic oversheathing when needed.
- **Loose Tube:** thermoplastic material, containing fibres and filled with a suitable water tightness compound.
- **Stranding:** loose tubes (and fillers), SZ stranded around the CSM.
- **Longitudinal Water Tightness:** the cable core is flooded with filling compound.
- **Outer Sheath:** PE, 1 ripcord beneath.
- **Suspension Element:** glass fibre reinforced plastic rod (FRP), nominal diameter: 9 mm, nominal diameter over PE covered element: 12 mm.
- **Web:** nominal dimensions: height: 3.0 mm, width 2.5 mm.

### Technical data

No. of Fibres		4	8	12	24	36	48	72	96	
Design		1 x 4	1 x 8	1 x 12	2 x 12	3 x 12	4 x 12	6 x 12	8 x 12	
Loose Tube / Filler - Ø	mm	2.8								
CSM - Ø	mm	3.0								
CSM - Oversheathing - Ø	mm	-								
Outer Sheath Thickness	mm	1.5								
Cable Diameter	mm	12.1 x 27.1								
Cable Weight	kg / km	305								
Minimum Bending Radius	mm	Without Tension 15 x Cable-Ø				Under Maximum Tension 20 x Cable-Ø				
Temperature Range	°C	Installation - 15 to + 60			Transport & Storage - 40 to + 70			Operation - 40 to + 70		

Please refer to our General Installation, Safety & Handling recommendations before handling.

### Main characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Max. Installation Tension	IEC 60794-1-2-E1	25000 N	$\Delta\alpha$ reversible
Max. Operation Tension	IEC 60794-1-2-E1	20000 N	$\Delta\alpha \leq 0.05$ dB/100m
Crush	IEC 60794-1-2-E3	2000 N / 100 mm, max. 15 min	$\Delta\alpha \leq 0.05$ dB, no damage
Impact	IEC 60794-1-2-E4	15 Nm, 1 impact, R= 300 mm	$\Delta\alpha \leq 0.05$ dB after the test
Torsion	IEC 60794-1-2-E7	100N, +/- 180°, 10 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20x D, 100N, 1000 cycles	no damage
Cable Bend	IEC 60794-1-2-E11	R=20x D, 5 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Temperature Cycling	IEC 60794-1-2-F1	-40°C to +70°C	$\Delta\alpha \leq 0.05$ dB/km
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water column=1m	no water leakage in 24h

All optical measurements at 1550 nm.

### Optical Characteristics

See the attached cabled optical fibre data sheet.

## Identification

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### Fibre Colours

No.	1	2	3	4	5	6	7	8	9	10	11	12
Color	white	red	yellow	green	blue	grey	brown	black	violet	acqua	orange	pink

### Buffer Tube Colours

Tube	1	2	3	4	5	6	7	8
Colour	red	green	white	white	white	white	white	white

### Sheath Colour:

The outer sheath colour is black.

### Sheath Marking:

The outer sheath is marked in 1 meter intervals as follows:

**<Manufacturer> Part No. <art. no.> <cable code> PE Optical Cable <fibre type>**  
**Batch no. <batch no.> <producer id> <year and week of manufacture>**  
**<length marking in meter>m**

## Logistic

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### Packing:

Wooden drums with protection.

### Delivery Lengths:

Standard delivery lengths are 2 km, 4 km, 6 km with a tolerance of - 1% / + 3%

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