

OUTDOOR - FvP Sheath

MICRO BLOWN FIBRE-OPTIC CABLES

DESCRIPTION AND APPLICATION

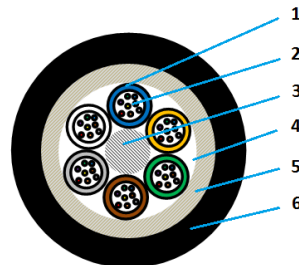
"Loose Tube" type fibre-optic cables with fibreglass yarns and polyethylene sheath. This cable is recommended for outdoor installations and can also be installed in underground ducts (by blowing or pulling). To be used in medium or long-distance networks.

CONSTRUCTION

1. Jelly-filled PBT loose tubes.
2. Optical fibres.
3. Dielectric fibreglass-reinforced central element.
4. Water-blocking yarns and/or tapes.
5. Fibreglass yarns.
6. Polyethylene outer sheath.

Markings:

CABLESCOM / Year / Number of fibres / Type of fibre / Type of sheath / Length markings



PRODUCT INFORMATION

Code	Num. Fibres	Fibres per tube	Active Tubes	Passive Tubes	Nominal weight (kg/km)	Nominal OD (mm)	Max. Installation Tensile strength (N)	Max. Operation Tensile strength (N)
EE2103E0000160WN	16	8	2	4	70	9.9	3100	2000
EE2103E0000240WN	24	8	3	3	70	9.9	3100	2000
EE2103E0000320WN	32	8	4	2	70	9.9	3100	2000
EE2103E0000480WN	48	8	6	0	70	9.5	3100	2000
EE2103E0000640WN	64	8	8	0	90	10.8	2500	1700

Mechanical characteristics	Standard	Test conditions
Installation Maximum Tensile Strength ($\epsilon_f < 0.50\%$, $\Delta\alpha$ reversible)	UNE-EN 60794-1-2, Met. E1	See table above
Operation Maximum Tensile Strength ($\epsilon_f < 0.20\%$, $\Delta\alpha$ reversible)	UNE-EN 60794-1-2, Met. E1	See table above
Impact resistance ($\Delta\alpha$ reversible)	UNE-EN 60794-1-2, Met. E4	5 J, $r = 300$ mm, 3 impacts
Curvature ($\Delta\alpha < 0.05$ dB)	UNE-EN 60794-1-2, Met. 11	$D = 15 \times \varnothing$ cable, 4 turns, 3 cycles
Repeated bending ($\Delta\alpha < 0.05$ dB)	UNE-EN 60794-1-2, Met. 6	$D = 20 \times \varnothing$ cable, 25 cycles, 100N
Operating temperature ($\Delta\alpha < 0.05$ dB)	UNE-EN 60794-1-2, Met. F1	-20°C / 60°C
Water penetration	UNE-EN 60794-1-2, Met. F5C	$LP_{water} \leq 3$ m (8 hours)
Crush resistance ($\Delta\alpha$ reversible)	UNE-EN 60794-1-2, Met. E3	1600 N, 100 mm
Torsion	UNE-EN 60794-1-2, Met. E7	25 N, 20 cycles, $\pm 180^\circ$

Fibre colour code: Green – Red – Blue – Yellow – Grey – Violet – Brown – Orange.

Tube colour code: White – Red – Blue – Green.

Other colours on request

Parameters of optical fibres used in these cables meet the ITU-T recommendation G.652D

Optical transmission characteristics of cabled fibre:

Attenuation coefficient:

Average / maximum at 1310 nm: 0.36 / 0.37 dB/km

Average / Maximum at 1550 nm: 0.22 / 0.26 dB/km

Cut-off wavelength (λ_{cc}) ≤ 1260 nm

All drawings, weights and dimensions details, as well as tube and fibre colours in this document are only indicative and must not be considered contractual.

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Certified Company ISO 9001 – ISO 14001

TITLE
HP_2103E_i

EDITION
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APPROVED BY
E. Huang

DATE
2018-01-26