

Type:	MK-DX-PE	REV:2.7
Issued:	09/04/201 9	AM
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Reinforced last mile connection µdrop cable FIBRAIN MK-DX



*Schematic drawing, not to scale

APPLICATION

Installation by blowing
FTTH & last mile connection

DESIGN:

HDPE sheath with low coefficient of friction
Aramid yarns as strain relief
Central tube with filling compound
250 µm coloured fibres (or 200 µm / 24F)
Smallest outer diameter for blowing into 5/3,5mm ducts

CONFIGURATION

Type cable	Version	Quantity pcs	Ø nominal (±5 %) mm	Nominal weight (±5 %) kg/km	Max allowed tension N
		Fibres			
MK-DX18	1T x 2-4F	2-4	1,8	3,5	100
MK-DX26	1T x 2-12F	2-12	2,6	6,3	100
MK-DX26	1T x 24F	24	2,6	7,3	100

APPLICATION

Suggested Duct - Ø (min)	[mm]	5 / 3,5
Temperature range	Transport & Storage:	- 40 to + 70 °C
	Installation:	- 10 to + 55 °C
	Operation:	- 30 to + 70 °C

MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Test	Test Standard	Specified value	Requirement*
Max allowed tension	IEC 60794-1-21-E1	Load: as provided in table above	$\Delta\epsilon_f \leq 0.5\%$, $\Delta\alpha \leq 0,1$ dB/km
Crush	IEC 60794-1-21-E3	500 N / 100 mm, max. 15 min	$\Delta\alpha$ reversible, no significant damage
Impact	IEC 60794-1-21-E4	1 Nm, 3 impacts, R= 300 mm	$\Delta\alpha \leq 0.05$ dB/km, after the test
Torsion	IEC 60794-1-21-E7	10 N, +/- 180°, 10 cycles	$\Delta\alpha \leq 0.05$ dB/km, no damage
Bending performance	IEC 60794-1-21-E11	R=20x D, 10 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB/km, no damage
Water Penetration	IEC 60794-1-22-F5B	Sample=3 m, water column=1 m, 24 h	no water leakage
Temperature cycling	IEC 60794-1-22-F1	1st cycle: +23 °C → -30 °C(Ta1) → +60 °C(Tb1) → -40 °C(Ta2) → +70 °C(Tb2) 2nd cycle: -30 °C(Ta1) → -40 °C(Ta2) → +60 °C(Tb1) → +70 °C(Tb2) → +23 °C Soak time: 8 h	$\Delta\alpha \leq 0,1$ dB/km for Ta1/Tb1

(*) values for single-mode fibres, all optical measurements performed at @1550 nm

OPTICAL FIBRE AND LOOSE TUBES COLOUR IDENTIFICATION

For optical fibres and loose tube identification information please see **DSH_Colors_CODE_XXXX** document.

FIBRE PARAMETERS

For selected post-production optical fibres parameters please see **DSH_OFFP** document.

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MARKING

The following print (laser) is applied at 1-meter intervals:

- Supplier: FIBRAIN
- Standard code (Product type, fibre type, fibre count)
- Year of manufacture: xxxx
- Length marking in meters
- Cable ID / Drum No

Example: FIBRAIN METROJETMK-DX26 12F SM G657A1 1T12F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

PACKAGING

Cables will be shipped on disposable plywood drums. Both ends of the cable will be capped, and at least one end of the cable will be accessible for testing. Identification information will be placed on a drum.

DELIVERY LENGTH

Typical length 2000 – 4000 meters ± 5%, with possibility of supplying up to 5% of total contract quantity as short length cables which should be above 1000 meters long. Tolerance of 5 % of order quantity shall be allowed. Maximal length of production cables up to 12F is 8000 meters and above 12F is 5000 meters

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