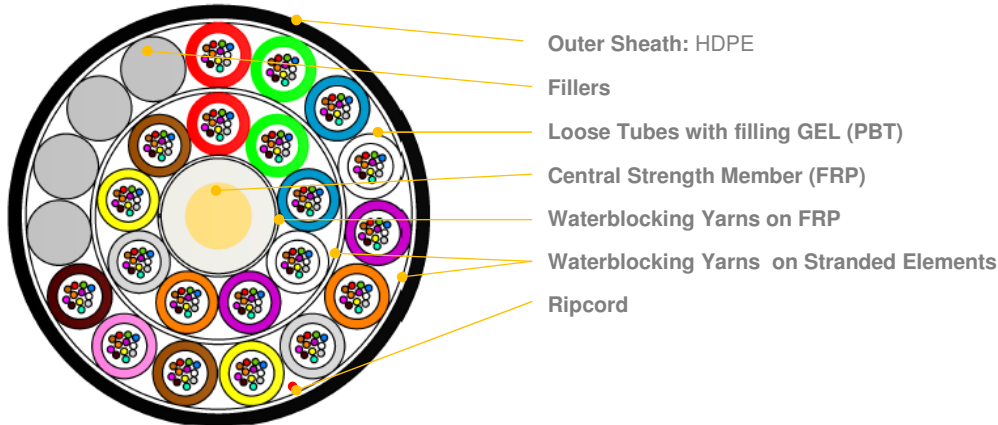


Type:	Metrojet MK-LX11	REV: 2.4
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MetroJET MK-LX11 Multi Loose Tube microcable (up to 288F)



*schematic drawing, not to scale

APPLICATION:

Microduct cabling air-blowing system application
 Metro networks
 Flexible network design
 Distribution network

DESIGN:

HDPE, UV resistance external jacket with low friction
 Loose tubes (and fillers), SZ stranded around the CSM
 Each PBT tubes containing 12 optical fibres
 Smallest outer diameter for blowing into 14/12mm ducts

CONFIGURATIONS:

Variant	Quantity [pcs]					Ø nominal (±5%) [mm]	Nominal weight (±10%) [kg/km]
	Fibres	Fibres per tube	Total elements	Active tubes	Fillers		
20T x 12F	240	12	24	20	4	10.5	85
22T x 12F	264	12	24	22	2	10.5	86
24T x 12F	288	12	24	24	0	10.5	87
*	*Other fibre counts are also available on demand						

APPLICATION:

Suggested Duct - Ø (min)	mm	16/12mm, 14/12mm	
Temperature Range	Transport & Storage:	- 40 to + 70 °C	Minimum Bending Radius
	Installation:	- 15 to + 60 °C	Dynamic: 20 x cable Ø
	Operation:	- 30 to + 70 °C	Static: 10 x cable Ø

MAIN MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS (according to IEC 60794-5)

Test	Test Standard	Specified Value	Requirement*
Max Installation Tension	IEC 60794-1-21-E1	900 N	$\Delta\epsilon_i \leq 0.33\%$, $\Delta\alpha$ reversible
Max Operation Tension	IEC 60794-1-21-E1	350 N	$\Delta\epsilon_i \leq 0.05\%$, $\Delta\alpha \leq 0.05$ dB/km
Crush	IEC 60794-1-21-E3	1000 N / 100 mm, max. 15 min	$\Delta\alpha$ reversible, no significant damage
Impact	IEC 60794-1-21-E4	10 Nm, 3 impacts, R= 300 mm	$\Delta\alpha \leq 0.05$ dB after the test
Torsion	IEC 60794-1-21-E7	100N, +/- 180°, 10 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Repeated Bending	IEC 60794-1-21-E6	R=20x D, 100N, 35 cycles	no damage
Cable Bend	IEC 60794-1-21-E11	R=20x D, 4 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Temperature Cycling	IEC 60794-1-22-F1	-15°C to +60°C -30°C to +70°C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.10$ dB/km
Water Penetration	IEC 60794-1-22-F5B	sample=3m, water column=1m, 24h	no water leakage

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

FIBRE PARAMETERS

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

OPTICAL FIBRE AND MODULES COLOUR IDENTIFICATION

For optical fibres and modules identification information please see DSH_Colors_CODE_XXXX document.

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MARKING

The following print (ink jet, laser or other suitable method depending on availability) 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 METROJET MK-LX11 240F SM G652D 20T12F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

The accuracy of marking is $\pm 0,5\%$. Remarking is in accordance with Bellcore GR 20 and supersedes earlier markings. Occasional loss of marking is possible. Cables can be supplied with a range of single mode or multimode fibres and customized print.

PACKING

Cables will be shipped on disposable wooden or treated wooden drums. Both ends of the cable will be capped and accessible for testing. Identification information will be placed on drum's flange.

DELIVERY LENGTH

2000 – 8000 meters $\pm 5\%$, 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.

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