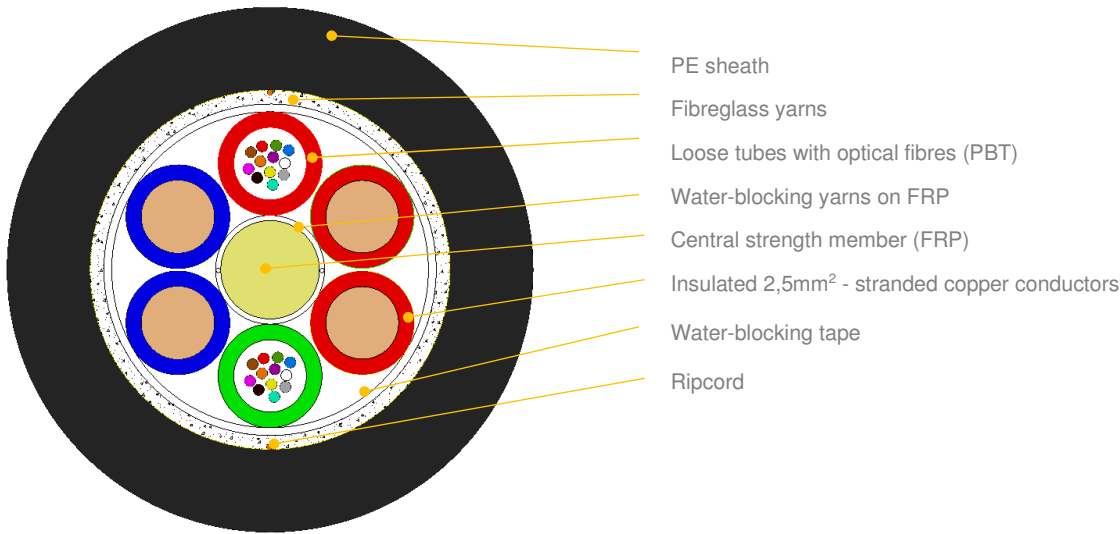


Basic duct cable with multitube structure and copper conductors reinforced with fiberglass yarns - BDC-DIP



*schematic drawing, not to scale

APPLICATION:

For installation into existing duct
Good resistance to traction and compression

STRUCTURE AND COMPOSITION:

FRP strength and anti-buckling element
Insulated stranded copper conductors 2,5mm² (Ø 3.6mm)
Loose tubes with filling compound (PBT Ø 3.4mm)
Tape and dry yarns to prevent moisture into the cable
Fiberglass yarns as strain relief elements
UV stabilized PE outer sheath
Other outer sheaths materials available

CABLE DESIGNS:

Variant	Quantity [pcs]				Ø nominal (±5%) [mm]	Nominal weight (±10%) [kg/km]	Max allowed tension [N]	Max static tension [N]
	Fibres	Fibres per tube	Total elements	Active tubes				
1T x 4F + 2 x 2,5mm ²	4	4	6	1	14,5	175	2900	1800
1T x 12F + 2 x 2,5mm ²	12	12	6	1	14,5	163	2800	1700
1T x 12F + 3 x 2,5mm ²	12	12	6	1	14,5	186	2800	1700
1T x 12F + 4 x 2,5mm ²	12	12	6	1	14,5	210	2800	1700
1T x 12F + 5 x 2,5mm ²	12	12	6	1	14,5	233	2800	1700
-								
2T x 12F + 1 x 2,5mm ²	24	12	6	2	14,5	166	2800	1700
2T x 12F + 2 x 2,5mm ²	24	12	6	2	14,5	189	2800	1700
2T x 12F + 3 x 2,5mm ²	24	12	6	2	14,5	212	2800	1700
2T x 12F + 4 x 2,5mm ²	24	12	6	2	14,5	235	2800	1700
-								
3T x 12F + 1 x 2,5mm ²	36	12	6	3	14,5	168	2800	1700
3T x 12F + 2 x 2,5mm ²	36	12	6	3	14,5	191	2800	1700
3T x 12F + 3 x 2,5mm ²	36	12	6	3	14,5	214	2800	1700
-								
4T x 12F + 1 x 2,5mm ²	48	12	6	4	14,5	170	2800	1700
4T x 12F + 2 x 2,5mm ²	48	12	6	4	14,5	194	2800	1700
-								
5T x 12F + 1 x 2,5mm ²	60	12	6	5	14,5	173	2800	1700
-								
1T x 12F + 7 x 2,5mm ²	12	12	8	1	16,9	352	2800	1700
1T x 12F + 6 x 2,5mm ²	12	12	8	1	16,9	329	2800	1700
2T x 12F + 5 x 2,5mm ²	24	12	8	2	16,9	308	2800	1700
2T x 12F + 6 x 2,5mm ²	24	12	8	2	16,9	331	2800	1700
3T x 12F + 4 x 2,5mm ²	36	12	8	3	16,9	287	2800	1700
3T x 12F + 5 x 2,5mm ²	36	12	8	3	16,9	310	2800	1700
4T x 12F + 3 x 2,5mm ²	48	12	8	4	16,9	266	2800	1700
4T x 12F + 4 x 2,5mm ²	48	12	8	4	16,9	287	2800	1700

Other fibre counts available on demand. Copper wires colours to consult.

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MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Crush performance:	2700 [N/10 cm]	IEC 60794-1-21-E3, $\Delta\alpha\leq 0,05$ dB
Bending radius:	Static: 15 x D Dynamic: 20 x D	IEC 60794-1-21-E11, $\Delta\alpha\leq 0,05$ dB
Water penetration:	3m sample, 1m head, 24h	IEC 60794-1-22-F5, no leakage, (doesn't apply to copper wires)
Temperature range:	Installation: -15... +55 [°C] Operation: -40... +70 [°C] Transport & Storage: -40... +70 [°C]	IEC 60794-1-22-F1, $\Delta\alpha\leq 0,05$ dB/km

The customer (as a system designer) is responsible for selection of the amount, and a cross section of copper wires suitable for his needs in such a way that the current load does not result in exceeding the maximum allowed fibre operating temperature (+ 70 °C) or permissible operating temperature of insulated conductors.

TECHNICAL COOPER WIRE CHARACTERISTICS

Type	H07V-K (LgY) 450/750V
Max. DC resistance	8,2 Ω /km@20°C
Conductor material	Bare copper
Conductor cross section	2,5mm ²
Conductor Size	3,6mm
Insulation material	PVC

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_OFPP document.

MARKING

The following print (hot stamped, laser or other suitable printing method) 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 BDC-DIP T34 24F SM G652D 2T12F + 4x2,5CU H07V-K 450/750V "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.

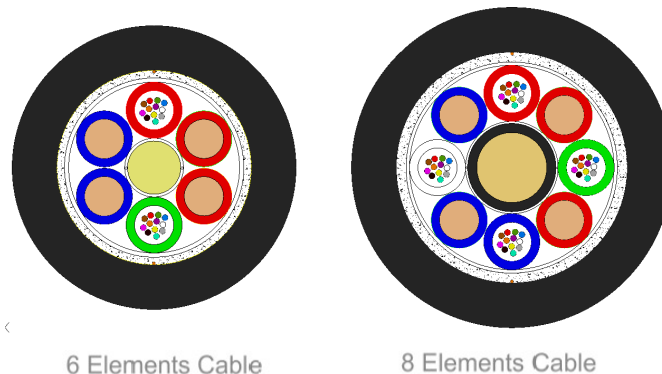
PACKING

Cables will be shipped on disposable wooden or treated wooden drums. Both ends of the cable will be capped and accessible for testing. Rotation direction arrow will be marked on the drum together with identification information.

DELIVERY LENGTH

2000 – 4000 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.

ANNEX – DRAWINGS:



*schematic drawing, not to scale

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