

## Basic duct cable with multitube structure and glass yarn reinforcement BDC-CI



\*schematic drawing, not to scale

### APPLICATION:

For installation into existing duct  
Fully dielectric cable  
Light rodent protection

### DESIGN:

FRP strength and anti-buckling element  
Dry yarns and tape to prevent moisture into the cable  
Loose tube (PBT Ø 2.0mm) with filling compound  
Optical fibres  
Fillers (if applicable)  
Water-swellable tape  
Fibreglass yarns as strain relief  
UV stabilized PE sheath (black by default, other colours available)  
Sheath options: LSOH, PA etc.  
Nominal outer sheath thickness 1,6mm

### CABLE DESIGNS:

Variant	Quantity [pcs]				Ø nominal (±5%) [mm]	Nominal weight (±10%) [kg/km]	Max short term tensile load [N]	Max long term tensile load [N]
	Fibres	Fibres per tube	Total elements	Active tubes				
1-6T x 4F	4 - 24	4	6	1-6	10,0	71	2700	1700
1-6T x 6F	6 - 36	6	6	1-6	10,0	71	2800	1600
8T x 6F	48	6	8	8	11,4	91	2900	1800
1-6T x 8F	8 - 48	8	6	1-6	10,0	74	2700	1300
1-6T x 12F	12 - 72	12	6	1-6	10,0	74	2700	1200
8T x 12F	96	12	8	8	11,4	97	2700	1200
12T x 12F	144	12	12	12	13,8	141	2700	1200
12T x 8F	96	8	12	12	13,8	140	2700	1400
16T x 12F (2 layers)	192	12	16	16	14,2	136	2900	1400
18T x 12F (2 layers)	216	12	18	18	14,2	147	2900	1400
20T x 12F (2 layers)	240	12	24	20	16,3	186	2900	1400
24T x 12F (2 layers)	288	12	24	24	15,9	190	2900	1400
36T x 12F (3 layers)	432	12	36	36	17,5	250	2900	1400
Other designs on demand								

### MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Crush performance:	2000 [N/10 cm]	IEC 60794-1-21-E3, $\Delta\alpha \leq 0,05$ dB, reversible
Bending radius:	Static: 15 x D Dynamic: 20 x D	IEC 60794-1-21-E6, $\Delta\alpha \leq 0,05$ dB, reversible
Water penetration:	3[m] sample, 1[m] head, 24[h]	IEC 60794-1-22-F5, no leakage

Type:	BDC-CI	REV: 5.1
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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

**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\_OFP document

**MARKING**

The following print (hot stamped / laser or other suitable 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-CI T20 12F SM G652D 2T6F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"  
 FIBRAIN BDC-CI T20 12F SM G657A1 2T6F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

The accuracy of marking is  $\pm 1\%$ . 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.

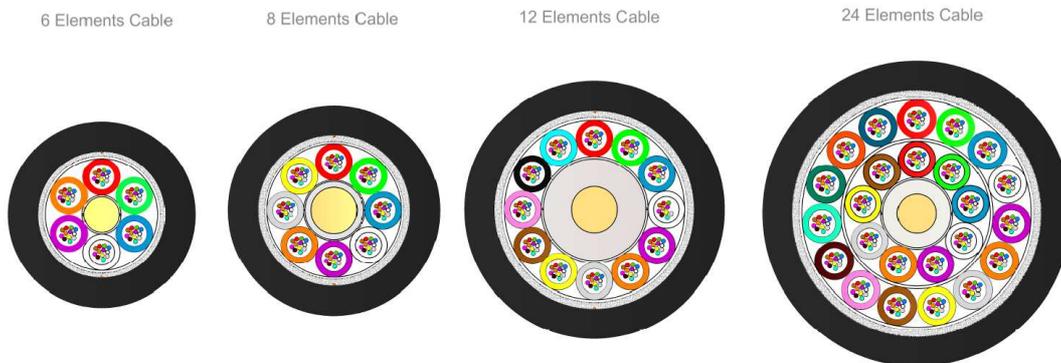
**PACKING**

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 – 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.

**ANNEX – DRAWINGS:**



\*not to scale

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