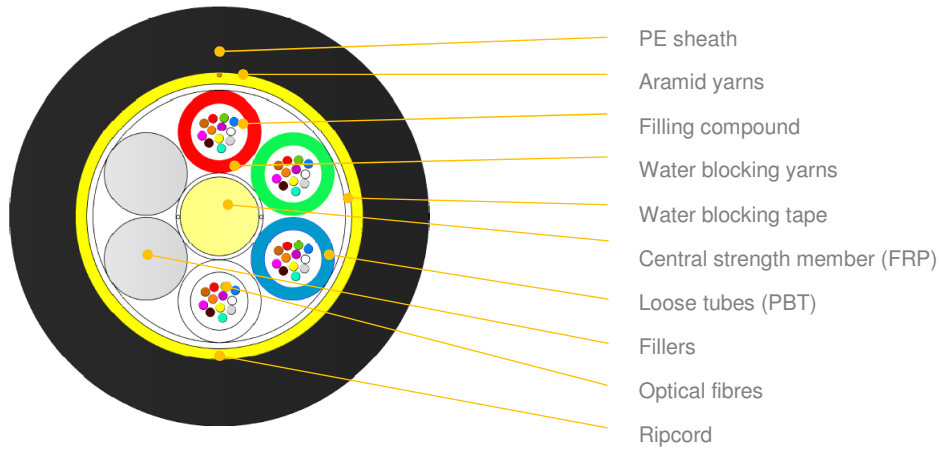


Universal Duct Cable with Multitube Structure and Aramid Fibre Reinforcement BDC-CIA PE



*schematic drawing, not to scale

APPLICATION:

For installation into existing duct.
Fully dielectric cable
Light rodent protection
Low smoke, no halogen outer jacket

STRUCTURE AND COMPOSITION:

FRP strength and anti-buckling element
Fibres in tubes
Loose tubes (PBT Ø 2.0mm) with filling compound
Dry yarns and tape to prevent moisture into the cable
Aramid yarns as strain relief
PE sheath

CABLE DESIGNS:

Variation	Quantity [pcs]				Ø nominal (+/-5%) [mm]	Nominal weight (+/-10%) [kg/km]	Max. tensile load short term [N]	Max. tensile load long term [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	2700	1700
1-6T x 12F	12 - 72	12	6	1-6	10,0	74	2700	1300
8T x 4F	32	4	8	8	11,3	91	2700	1700
8T x 6F	48	6	8	8	11,4	91	2700	1700
8T x 12F	96	12	8	8	11,4	97	2700	1300
12T x 12F	144	12	12	12	13,8	141	2700	1300
16T x 12F	192	12	18	16	14,2	136	2800	1400
18T x 12F	216	12	18	18	14,2	147	2800	1400
20T x 12F	240	12	24	20	16,3	186	2800	1400
24T x 12F	288	12	24	24	16,3	190	2800	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
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
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

Type:	BDC-CIA	REV: 2
Issued:	20/01/2017	PB
Modified:	15/02/2021	AM

APPLICATION AND CABLE SPAN CHARACTERISTIC

6- tubes design:

Loading Conditions	Span	Installed Sag (2%)	Tension	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	170	3,4	2700	7,8	7,4	2,3
NSC Medium	120	2,4	2700	5,8	3,6	4,5
NSC Heavy	70	1,4	2700	3,6	1,8	3,1

8 tubes design:

Loading Conditions	Span	Installed Sag (2%)	Tension	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	150	3,0	2700	6,1	5,8	1,8
NSC Medium	105	2,1	2700	4,5	2,8	3,5
NSC Heavy	60	1,2	2700	2,7	1,4	2,4

12 tubes design:

Loading Conditions	Span	Installed Sag (2%)	Tension	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	125	2,5	2700	5,0	4,8	1,6
NSC Medium	95	1,9	2700	4,0	2,4	3,2
NSC Heavy	55	1,1	2700	2,5	1,2	2,2

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 foil, ink jet, laser or other suitable available 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 BDC-CIA T20 12F SM G652D 1T12F "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.

PACKAGING

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.

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