

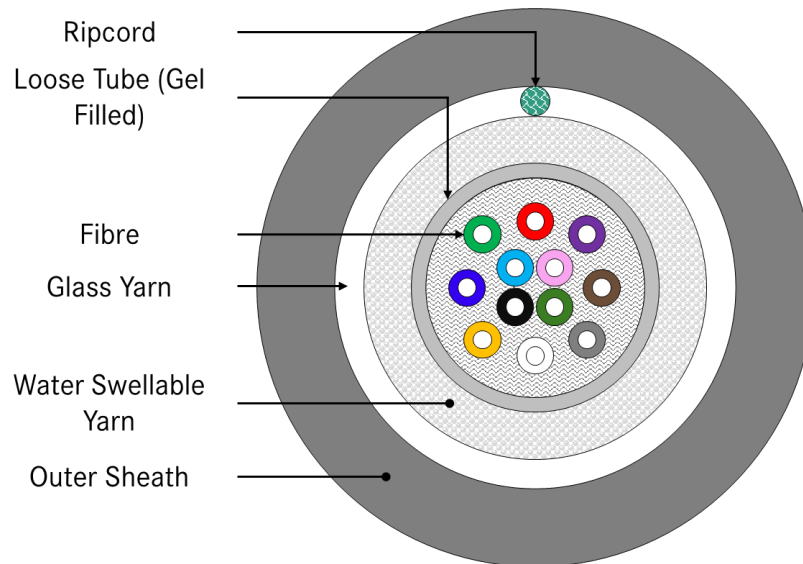
<b>26800908</b>	<b>DATA SHEET</b>	
<b>valid from: 04.08.2025</b>	<b>HITRONIC® B3K</b>	

**Application**

Field of use: Outdoor direct burial G.657.A1 single-mode glass A-DQ(ZN)B2Y fibre optic cable with central loose tube, non-metallic strength elements, longitudinally and laterally watertight, rodent protection, robust and halogen-free HD-PE cable sheath

Applications: For use in wide area data networks such as the Internet, in solar and wind farms, campus backbones, as well as other applications such as metropolitan area networks (MANs), industrial automation systems, and telecommunications infrastructure. Methods of deployment: direct burial

Product Category: Fiber Optic Cables (FOC)



**Design**

Cable Type: Central gel-filled loose tube, max. 24 fibres

Fiber Types: Single-mode (ITU-T G.657.A1)

Tensile Strength Elements: Reinforced Glass Yarns, Impregnated Glass Fibre Yarns (IGFY)

Gel Filling: Yes, water-blocking

Armouring: Dielectric (non-metallic), rodent protection, Glass Yarn

Optical Fibre containing: Central Loose Tube

Material Loose Tubes: PBT (Poly-Butylene-Therephtalate)

Material Filling Gel: Thixotropic Jelly

Tube Diameter: 3.5 ± 0.1 mm up to 24 Fibres

Peripheral Strength Member: Glass Yarn for rodent protection

Ripcords: 1 Piece

Ripcord, material: Polyester

Outer Sheath Material: HD-PE, Black RAL 9005, Anti Rodent

Cable Outer Diameter: 7.8 ± 0.5 mm

**Color identification code**

Fibre	1	2	3	4	5	6	7	8	9	10	11	12
Colour	RD	GR	BU	YE	WH	GY	BN	VT	AQ	BK	OR	PK

based on IEC 60304


Fibre-No.
Colour

Fibre	13	14	15	16	17	18	19	20	21	22	23	24
Colour	RD*	GR*	BU*	YE*	WH*	GY*	BN*	VT*	AQ*	NT**	OR*	PK*

\*Black ring marking on fibres from 13-24 at every 50 mm distance.

\*\*Black ring marked natural fibre instead of white ring marked black fibre

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Article Description	Article Number	Tensile Strength Operation	Tensile Strength Installation	Fibre Count	Number of Fibres per Tube	Number of loose Tubes	Number of Fillers
HITRONIC B3K A-DQ(ZN)B2Y 8 G657A1	26800908	1500 N	3000 N	8	8	1	0
HITRONIC B3K A-DQ(ZN)B2Y 12 G657A1	26800912	1500 N	3000 N	12	12	1	0
HITRONIC B3K A-DQ(ZN)B2Y 24 G657A1	26800924	1500 N	3000 N	24	24	1	0

**Table 1: Tube and Filler Count**

**Optical Fibre Characteristics**

Cable Attenuation @	1310 nm	≤ 0.36 dB/km
	1550 nm	≤ 0.23 dB/km
	1625 nm	≤ 0.26 dB/km
Chromatic Dispersion	1285-1330 nm	≤ 3.5 ps/(nm*km)
	1550 nm	≤ 18 ps/(nm*km)
	1625 nm	≤ 22 ps/(nm*km)
Zero Dispersion Wavelength	1300 -1324 nm	
PMD (Max. Individual)	≤ 0.1 ps/√km	
PMD (Link design value)	≤ 0.06 ps /√km	
Cable cut off wavelength λ <sub>cc</sub>	≤ 1260 nm	
MFD	1310 nm = 9.1 ± 0.3 μm	
	1550 nm = 10.3 ± 0.5 μm	
Bending Induced Attenuation	1 Turn [φ] 20xD	1550 nm ≤ 0.75 dB
		1625 nm ≤ 1.5 dB
	10 Turn [φ] 30xD	1550 nm ≤ 0.25 dB
		1625 nm ≤ 1.0 dB
Core-Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 0.8 %	
Coating Diameter	Natural Fibre	242 ± 5 μm
	Coloured Fibre	250 ± 10 μm

**Mechanical and thermal properties**

Minimum bending radius acc. to IEC-60794-1-21, E11	Installation:	20× outer diameter
	Operation:	10× outer diameter
Temperature range acc. to IEC-60794-1-22, F1	Installation:	-20 °C up to +50 °C
	Operation:	-40 °C up to +70 °C
	Storage:	-40 °C up to +70 °C
Tensile Strength acc. to IEC-60794-1-21, E1	Installation / short term	3000 N
	Operation / long term	1500 N
Crush Resistance acc. to IEC-60794-1-21, E3	max. 2500 N/ 10 cm	
Impact Strength acc. to IEC-60794-1-21, E4	10 N*m	
Torsion acc. to IEC-60794-1-21, E7	± 180 °/m	

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Water Penetration Test  
acc. to IEC-60794-1-21, F5

1 m water head, 3 m sample, 24 hours

Allowed Fibre Elongation (max.)  
acc. to IEC60794-1-21, E1

@ short Term Load	0.6 %
3 kN	
@ long Term Load	0.3 %
1.5 kN	

**General requirements**

These cables are classified in accordance with the EU-Regulation no. 305/2011 (Construction Products Regulation).

**Environmental information**

These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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