

HITRONIC® HVN-Mini Outdoor Stranded Cable

DB_HVN-Mini_EN
(version 4.0)
valid from: 01.11.2014

1. Product Description

Cable designation: A-DQ(ZN)2Y

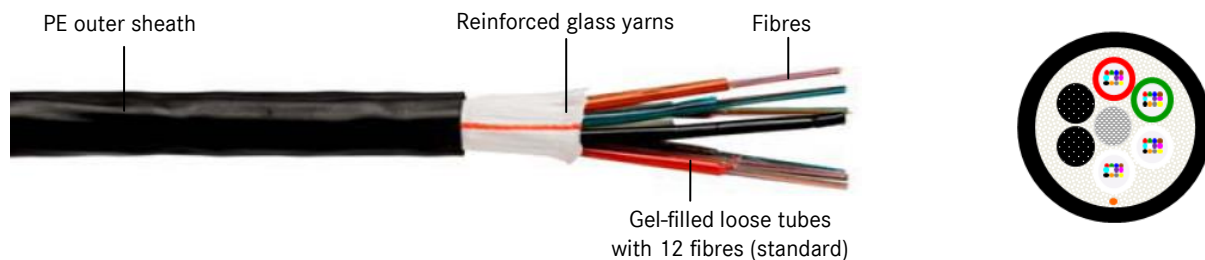
Micro outdoor glass fibre optic cable with multiple stranded loose tubes, non-metallic strength elements and halogen-free cable sheath, reduced and compact outer dimensions

2. Application

For use in outdoor, campus backbone, WAN applications, FTTx applications
Designed for installation by air-blowing systems

Methods of deployment: blowing into empty plastic pipes, ducts and trays

3. Product Design



Cable core	Up to 12 stranded loose tubes with a total of up to 144 glass fibres, a central element, reinforced glass yarns, reduced outer sheath
Cable inner sheath	-
Cable outer sheath	Polyethylene (PE) outer sheath, halogen-free, UV and water-resistant
Colour of inner sheath	-
Colour of outer sheath	Black (RAL 9005)
Colour of loose tubes	Active tubes: blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise (according to TIA-598) Filler: black
Identification of fibres	Blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise (according to TIA-598)
Type of armouring	-

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4. Optical and Physical Properties of Cabled Fibre (and Bare Fibre)

Multimode fibre		50/125 µm	50/125 µm	50/125 µm	62.5/125 µm	
		OM4	OM3	OM2	OM1	
Attenuation	@ 850 nm	dB/km	≤ 3.5 (2.5)	≤ 3.5 (2.5)	≤ 3.5 (2.5)	≤ 3.5 (3.0)
	@ 1300 nm	dB/km	≤ 1.5 (0.7)	≤ 1.5 (0.7)	≤ 1.5 (0.7)	≤ 1.5 (0.7)
Bandwidth	@ 850 nm	MHz-km	≥ 3500	≥ 1500	≥ 500	≥ 200
	@ 1300 nm	MHz-km	≥ 500	≥ 500	≥ 500	≥ 500
Numerical aperture			0.2 ± 0.015	0.2 ± 0.015	0.2 ± 0.015	0.275 ± 0.015
Core diameter		µm	50 ± 2.0	50 ± 2.0	50 ± 2.0	62.5 ± 2.5
Cladding diameter		µm	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 2
Primary coating diameter		µm	242 ± 5	242 ± 5	242 ± 5	245 ± 10
Single-mode fibre			9/125 µm			
(ITU-T G.652.D)						
Attenuation	@ 1310 nm	dB/km				≤ 0.4 (0.35)
	@ 1550 nm	dB/km				≤ 0.4 (0.21)
Chromatic dispersion	@ 1310 nm	ps/(nm-km)				≤ 3.0
	@ 1550 nm	ps/(nm-km)				≤ 18
Zero dispersion wavelength		Nm				1300 – 1322
Cut-off wavelength		Nm				≤ 1260
PMD		ps/km				≤ 0.1
Mode field diameter		µm				9.0 ± 0.4
Cladding diameter		µm				125 ± 1
Primary coating diameter		µm				242 ± 7

5. Thermal Properties

Operating temperature	-30°C to +70°C
Installation temperature	-5°C to +50°C
Storage temperature	-30°C to +70°C

6. Mechanical Properties

Max. number of fibres	Up to 72	96	144	
Cable outer diameter (mm)	5.8 ± 0.2	7.2 ± 0.2	8.0 ± 0.3	
Cable weight (kg/km)	33	52	80	
Min. bending radius (mm)	static	15 x D	15 x D	15 x D
	dynamic	20 x D	20 x D	20 x D
Max. tensile strength (N)	500	1200	1000	
Max. crush resistance (N)	300	300	300	

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7. Chemical Properties

PE sheath	Non-aging, halogen-free, good stability to acids and alkalis
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8. EC Directives

Not applicable for fibre optic cables

9. Approvals

- RoHS
- Environmental and mechanical tests comply to EN 187000 and IEC 60794
- Halogen free according to IEC 60754-1

10. Product Range Overview

Article number	Article designation	Fibre type	No. of Fibres	Outer Ø (mm)
Multimode				
26609424	HITRONIC® HVN-Mini500 2x12G 50/125 OM4	50/125 OM4	24	5.8
26609448	HITRONIC® HVN-Mini500 4x12G 50/125 OM4	50/125 OM4	48	5.8
26609324	HITRONIC® HVN-Mini500 2x12G 50/125 OM3	50/125 OM3	24	5.8
26609348	HITRONIC® HVN-Mini500 4x12G 50/125 OM3	50/125 OM3	48	5.8
26609396	HITRONIC® HVN-Mini1200 8x12G 50/125 OM3	50/125 OM3	96	7.2
26609344	HITRONIC® HVN-Mini1000 12x12G 50/125 OM3	50/125 OM3	144	8.0
26609224	HITRONIC® HVN-Mini500 2x12G 50/125 OM2	50/125 OM2	24	5.8
26609248	HITRONIC® HVN-Mini500 4x12G 50/125 OM2	50/125 OM2	48	5.8
26609124	HITRONIC® HVN-Mini500 2x12G 62.5/125 OM1	62.5/125 OM1	24	5.8
26609148	HITRONIC® HVN-Mini500 4x12G 62.5/125 OM1	62.5/125 OM1	48	5.8
Single-mode				
26609912	HITRONIC® HVN-Mini500 1x12E 9/125 OS2	9/125 OS2	12	5.8
26609924	HITRONIC® HVN-Mini500 2x12E 9/125 OS2	9/125 OS2	24	5.8
26609948	HITRONIC® HVN-Mini500 4x12E 9/125 OS2	9/125 OS2	48	5.8
26609972	HITRONIC® HVN-Mini500 6x12E 9/125 OS2	9/125 OS2	72	5.8
26609996	HITRONIC® HVN-Mini1200 8x12E 9/125 OS2	9/125 OS2	96	7.2
26609944	HITRONIC® HVN-Mini1000 12x12E 9/125 OS2	9/125 OS2	144	8.0