

27400904	DATENBLATT	
Valid from: 20.05.2019	HITRONIC® HUN1500 Universal Cable	

1. Product Description

Cable designation: J/A-DQ(ZN)BH

Universal glass fibre optic cable with central loose tube, non-metallic strength elements, longitudinally and laterally watertight, rodent protection, flame retardant and halogen-free cable sheath, UV-resistant

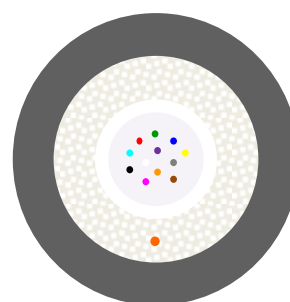
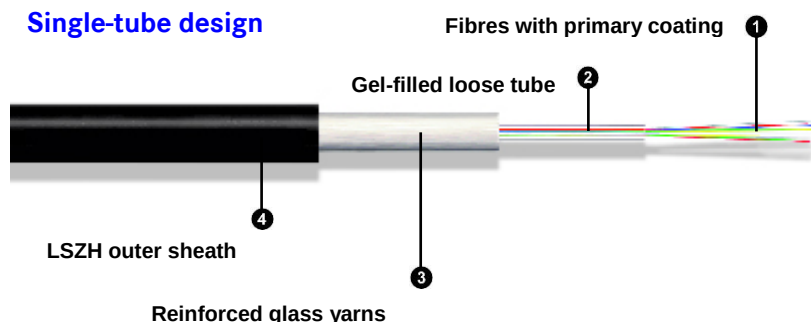
2. Application

Universal (Indoor/Outdoor), campus backbone, WAN applications, and industrial environment

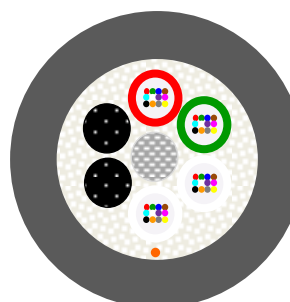
Methods of deployment: empty plastic pipes, ducts and trays

3. Product Design

Single-tube design



Multi-tubes design



Cable core	- Single-tube design: central gel-filled loose tube with up to 24 glass fibres, water-blocking reinforced glass yarns - Multi-tubes design: up to 12 stranded loose tubes with a total of up to 144 glass fibres, a central element, water-blocking reinforced glass yarns
Cable inner sheath	-
Cable outer sheath	Thermoplastic LSZH compound (flame retardant, halogen free, low smoke emission)
Colour of inner sheath	-
Colour of outer sheath	Dark Grey
Colour of loose tube	- Single-tube design: natural - Multi-tubes design: red, green, subsequent tubes are natural, fillers are black
Identification of fibres	Red, green, blue, yellow, grey, violet, brown, orange, white, pink, black, turquoise/transparent
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

Number of fibres		Up to 48	60-144
Cable outer diameter (mm)		Refer to range overview	Refer to range overview
Cable weight (kg/km)		Refer to range overview	Refer to range overview
Min. bending radius (mm)	without tensile load	15 x D	15 x D
	with tensile load	20 x D	20 x D
Max. tensile strength (N)	long-term	1500	2000
	short-term	2000	3000
Max. crush resistance (N/dm)		1500	1500
Fire load (MJ/m) for cable diameter 8.3mm		1.63	

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7. Chemical Properties

LSZH sheath	Flame-retardant (IEC 60332-3), low smoke, halogen-free
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8. EU Directives

This cable is conform to the EU-Directive 2011/65/EU
(RoHS, Restriction of the use of certain hazardous substances).

9. Approvals

- RoHS
- Environmental and mechanical tests comply to EN 187000 and IEC 60794
- Fire resistance tested according to IEC 60332-1, IEC 60332-3
- Halogen free according to IEC 60754-1, and low smoke emission complies with IEC 61034-1/2

10. Product Range Overview

Article number	Article designation	Fibre type	No. of Fibres	Weight (kg/km)	Outer ø (mm)
Multimode					
27400404	HITRONIC® HUN1500 4G 50/125 OM4	50/125 OM4	4	53	7.3
27400408	HITRONIC® HUN1500 8G 50/125 OM4	50/125 OM4	8	53	7.3
27400412	HITRONIC® HUN1500 12G 50/125 OM4	50/125 OM4	12	53	7.3
27400424	HITRONIC® HUN1500 24G 50/125 OM4	50/125 OM4	24	60	8.3
26400424	HITRONIC® HUN1500 2x12G 50/125 OM4	50/125 OM4	24	84	10,1
26400448	HITRONIC® HUN1500 4x12G 50/125 OM4	50/125 OM4	48	109	11.0
27400304	HITRONIC® HUN1500 4G 50/125 OM3	50/125 OM3	4	53	7.3
27400308	HITRONIC® HUN1500 8G 50/125 OM3	50/125 OM3	8	53	7.3
27400312	HITRONIC® HUN1500 12G 50/125 OM3	50/125 OM3	12	53	7.3
27400324	HITRONIC® HUN1500 24G 50/125 OM3	50/125 OM3	24	60	8.3
26400324	HITRONIC® HUN1500 2x12G 50/125 OM3	50/125 OM3	24	84	10,1
26400348	HITRONIC® HUN1500 4x12G 50/125 OM3	50/125 OM3	48	109	11.0
27400204	HITRONIC® HUN1500 4G 50/125 OM2	50/125 OM2	4	53	7.3
27400208	HITRONIC® HUN1500 8G 50/125 OM2	50/125 OM2	8	53	7.3
27400212	HITRONIC® HUN1500 12G 50/125 OM2	50/125 OM2	12	53	7.3
27400224	HITRONIC® HUN1500 24G 50/125 OM2	50/125 OM2	24	60	8.3
26400224	HITRONIC® HUN1500 2x12G 50/125 OM2	50/125 OM2	24	84	10,1
26400248	HITRONIC® HUN1500 4x12G 50/125 OM2	50/125 OM2	48	109	11.0
27400104	HITRONIC® HUN1500 4G 62.5/125 OM1	62.5/125 OM1	4	53	7.3
27400108	HITRONIC® HUN1500 8G 62.5/125 OM1	62.5/125 OM1	8	53	7.3
27400112	HITRONIC® HUN1500 12G 62.5/125 OM1	62.5/125 OM1	12	53	7.3
27400124	HITRONIC® HUN1500 24G 62.5/125 OM1	62.5/125 OM1	24	60	8.3
Single-mode					
27400904	HITRONIC® HUN1500 4E 9/125 OS2	9/125 OS2	4	53	7.3
27400908	HITRONIC® HUN1500 8E 9/125 OS2	9/125 OS2	8	53	7.3
27400912	HITRONIC® HUN1500 12E 9/125 OS2	9/125 OS2	12	53	7.3

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27400924	HITRONIC® HUN1500 24E 9/125 OS2	9/125 OS2	24	60	8.3
26400924	HITRONIC® HUN1500 2x12E 9/125 OS2	9/125 OS2	24	84	10,1
26400948	HITRONIC® HUN1500 4x12E 9/125 OS2	9/125 OS2	48	109	11.0
26400972	HITRONIC® HUN2000 6x12E 9/125 OS2	9/125 OS2	72	148	12.6
26400996	HITRONIC® HUN2000 8x12E 9/125 OS2	9/125 OS2	96	190	14.3
26400944	HITRONIC® HUN2000 12x12E 9/125 OS2	9/125 OS2	144	221	17.0

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