

**HITRONIC® HUW1500  
Armoured Universal Cable**

**DB\_HUW1500\_EN  
(version 01)**  
valid from: 01.10.2019

**1. Product Description**

Cable designation: J/A-DQ(ZN)(SR)H or J/A-DQ(ZN)BWH

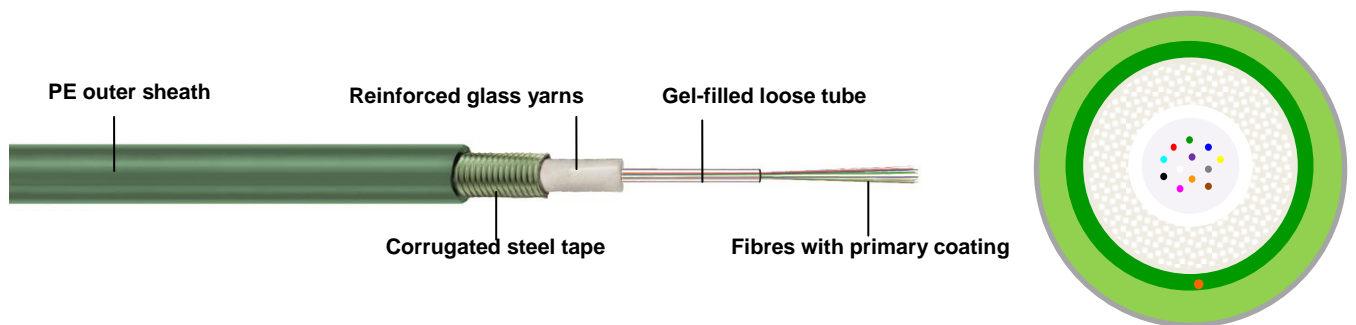
Universal glass fibre optic cable with corrugated steel tape armour, central loose tube, non-metallic strength elements, longitudinally and laterally watertight, excellent rodent protection, flame-retardant and halogen-free cable sheath

**2. Application**

For use in outdoor, indoor, campus backbone, WAN applications, and industrial environment

Methods of deployment: empty plastic pipes, ducts and trays

**3. Product Design**



Cable core	<ul style="list-style-type: none"> <li>• Single-tube design: central gel-filled loose tube with up to 24 glass fibres, water-blocking reinforced glass yarns</li> <li>• 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</li> </ul>
Cable inner sheath	-
Cable outer sheath	Thermoplastic LSZH outer sheath, flame-retardant, halogen-free, UV and water-resistant
Colour of inner sheath	-
Colour of outer sheath	Green
Colour of loose tube	<ul style="list-style-type: none"> <li>• Single-tube design: natural</li> <li>• Multi-tubes design: red, green, subsequent tubes are natural, fillers are black</li> </ul>
Identification of fibres	Red, green, blue, yellow, grey, violet, brown, orange, white, pink, black, turquoise
Type of armouring	Corrugated steel tape

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

<b>Multimode fibre</b>		<b>50/125 µm</b>	<b>50/125 µm</b>	<b>50/125 µm</b>	<b>62.5/125 µm</b>	
		<b>OM4</b>	<b>OM3</b>	<b>OM2</b>	<b>OM1</b>	
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
<b>Single-mode fibre</b>		<b>9/125 µm</b>				
		<b>(ITU-T G.652.D)</b>				
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	0°C to +50°C
Storage temperature	-30°C to +70°C

**6. Mechanical Properties**

Max. number of fibres		Up to 24	48-144
Cable outer diameter (mm)		9.6	Refer to range overview
Cable weight (kg/km)		88	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	2700	3600
Max. crush resistance (N/dm)		2000	2500
Fire load (MJ/m)		1.78	

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**7. Chemical Properties**

Thermoplastic LSZH sheath      Flame-retardant, low smoke and halogen-free

**8. EC Directives**

Not applicable for fibre optic cables

**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)
<b>Multimode</b>					
27500404	HITRONIC® HUW1500 4G 50/125 OM4	50/125 OM4	4	88	9.6
27500408	HITRONIC® HUW1500 8G 50/125 OM4	50/125 OM4	8	88	9.6
27500412	HITRONIC® HUW1500 12G 50/125 OM4	50/125 OM4	12	88	9.6
27500424	HITRONIC® HUW1500 24G 50/125 OM4	50/125 OM4	24	88	9.6
27500304	HITRONIC® HUW1500 4G 50/125 OM3	50/125 OM3	4	88	9.6
27500308	HITRONIC® HUW1500 8G 50/125 OM3	50/125 OM3	8	88	9.6
27500312	HITRONIC® HUW1500 12G 50/125 OM3	50/125 OM3	12	88	9.6
27500324	HITRONIC® HUW1500 24G 50/125 OM3	50/125 OM3	24	88	9.6
27500202	HITRONIC® HUW1500 2G 50/125 OM2	50/125 OM2	2	88	9.6
27500204	HITRONIC® HUW1500 4G 50/125 OM2	50/125 OM2	4	88	9.6
27500208	HITRONIC® HUW1500 8G 50/125 OM2	50/125 OM2	8	88	9.6
27500212	HITRONIC® HUW1500 12G 50/125 OM2	50/125 OM2	12	88	9.6
27500224	HITRONIC® HUW1500 24G 50/125 OM2	50/125 OM2	24	88	9.6
27500104	HITRONIC® HUW1500 4G 62.5/125 OM1	62.5/125 OM1	4	88	9.6
27500108	HITRONIC® HUW1500 8G 62.5/125 OM1	62.5/125 OM1	8	88	9.6
27500112	HITRONIC® HUW1500 12G 62.5/125 OM1	62.5/125 OM1	12	88	9.6
27500124	HITRONIC® HUW1500 24G 62.5/125 OM1	62.5/125 OM1	24	88	9.6
<b>Single-mode</b>					
27500904	HITRONIC® HUW1500 4 E 9/125 OS2	9/125 OS2	4	88	9.6
27500908	HITRONIC® HUW1500 8 E 9/125 OS2	9/125 OS2	8	88	9.6
27500912	HITRONIC® HUW1500 12 E 9/125 OS2	9/125 OS2	12	88	9.6
27500924	HITRONIC® HUW1500 24 E 9/125 OS2	9/125 OS2	24	88	9.6
26500948	HITRONIC® HUW1500 4x12 E 9/125 OS2	9/125 OS2	48	178	12.5