HITRONIC® HDM Reel Cable

DB_HDM_EN (version 3.2)
valid from: 01.08.2013

1. Product Description

Cable designation: A/J-V(ZN)11Y or U-V(ZN)11Y

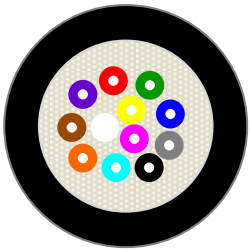
Universal mobile cable designed for frequent reeling/unreeling (based on military norm MIL-C-85045), for direct connector assembly, with up to 12 tight-buffered fibres, flame-retardant and halogen-free sheaths, high flexibility, UV-resistant

2. Application

For use in indoors and outdoors, suitable for broadcasting industries and events management

Methods of deployment: laying in trunking, ducts, trays, building riser, empty plastic pipes

3. Product Design



Cable core	Up to 12 tight-buffered fibres enclosed by aramid yarns and PUR sheath
Cable inner sheath	-
Cable outer sheath	PUR, halogen-free, flame-retardant
Colour of inner sheath	-
Colour of outer sheath	Black (RAL 9005)
Identification of fibres	Blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise
Strain relief	Aramid yarns
Type of armouring	-

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 @ 1300 nm dB/km	≤ 3.5 (2.5) ≤ 1.5 (0.7)	≤ 3.5 (2.5) ≤ 1.5 (0.7)	≤ 3.5 (2.5) ≤ 1.5 (0.7)	≤ 3.5 (3.0) ≤ 1.5 (0.7)
Bandwidth	@ 850 nm MHz-km @1300 nm MHz-km	≥ 3500 ≥ 500	≥ 1500 ≥ 500	≥ 500 ≥ 500	≥ 200 ≥ 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 ± 2.0
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	-40°C to +70°C
Installation temperature	0°C to +50°C
Storage temperature	-40°C to +70°C

6. Mechanical Properties

Max. number of fibres		12
Outer cable diameter (mm)		refer to range overview
Cable weight		refer to range overview
Min. bending radius (mm)	without tensile load with tensile load	15 x D 20 x D
Max. tensile strength (N)	long-term short-term	refer to range overview
Max. crush resistance (N)		2000

7. Chemical Properties

PUR sheath	Flame-retardant (IEC 60332-3), 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

10. Product Range Overview

Article number	Article designation	No. of Fibres	Outer Ø (mm)	Weight (kg/km)	Tensile Strength long/short (N)
Multimode 50/125 µm OM4					
26610404	HITRONIC® HDM600 4G 50/125 OM4	4	5.5 ± 0.3	24	600/1100
26610406	HITRONIC® HDM600 6G 50/125 OM4	6	5.6 ± 0.3	29	600/1100
26610408	HITRONIC® HDM700 8G 50/125 OM4	8	6.2 ± 0.3	36	700/1250
26610412	HITRONIC® HDM700 12G 50/125 OM4	12	6.7 ± 0.3	49	700/1250
Multimode 50/125 µm OM3					
26610304	HITRONIC® HDM600 4G 50/125 OM3	4	5.5 ± 0.3	24	600/1100
26610306	HITRONIC® HDM600 6G 50/125 OM3	6	5.6 ± 0.3	29	600/1100
26610308	HITRONIC® HDM700 8G 50/125 OM3	8	6.2 ± 0.3	36	700/1250
26610312	HITRONIC® HDM700 12G 50/125 OM3	12	6.7 ± 0.3	49	700/1250
Multimode 50/125 µm OM2					
26610204	HITRONIC® HDM600 4G 50/125 OM2	4	5.5 ± 0.3	24	600/1100
26610206	HITRONIC® HDM600 6G 50/125 OM2	6	5.6 ± 0.3	29	600/1100
26610208	HITRONIC® HDM700 8G 50/125 OM2	8	6.2 ± 0.3	36	700/1250
26610212	HITRONIC® HDM700 12G 50/125 OM2	12	6.7 ± 0.3	49	700/1250
Multimode 62.5/125 µm OM1					
26610104	HITRONIC® HDM600 4G 62.5/125 OM1	4	5.5 ± 0.3	24	600/1100
26610106	HITRONIC® HDM600 6G 62.5/125 OM1	6	5.6 ± 0.3	29	600/1100
26610108	HITRONIC® HDM700 8G 62.5/125 OM1	8	6.2 ± 0.3	36	700/1250
26610112	HITRONIC® HDM700 12G 62.5/125 OM1	12	6.7 ± 0.3	49	700/1250
Single-mode 9/125 µm OS2					
26610904	HITRONIC® HDM600 4E 9/125 OS2	4	5.5 ± 0.3	24	600/1100
26610906	HITRONIC® HDM600 6E 9/125 OS2	6	5.6 ± 0.3	29	600/1100
26610908	HITRONIC® HDM700 8E 9/125 OS2	8	6.2 ± 0.3	36	700/1250
26610912	HITRONIC® HDM700 12E 9/125 OS2	12	6.7 ± 0.3	49	700/1250