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VAN DAMME HD VISION DIGITAL COAX LSZH



The HD Vision range of 75 Ohm precision coaxial cables comprises 4 sizes of Low Smoke Zero Halogen jacketed single coaxials to cover most applications. Great attention has been paid to their electrical characteristics and tolerances to ensure trouble free performance with SMPTE 424M and 292M HD-SDI signals as well as SDI and analogue video.



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Applications

- Transmission of HD-SDI, SDI and analogue video signals
- Solid conductor for low loss use
- Installation in public buildings, schools and colleges, government premises and marine vessels

Application Notes

- Use of precision 75 Ohm components throughout any signal chain is imperative
- See downloads for Transmission length guidelines
- Fully tested and compliant with the following IEC standards: IEC 60332.1 Fire retardancy of a single cable; IEC 60754.1 Amount of Halogen Gas Emissions; IEC 60754.2 Degree of acidity of released gases; IEC 61034.2 Measurement of smoke density

Mechanical Specification

Part No.	**278-475-000**	**278-975-000**	**278-775-000**	**278-175-000**
Conductor	Bare ultra-pure oxygen free copper			
Diameter (mm)	1 x 1.62	1 x 0.81	1 x 0.41	1 x 1.02
Size	2.06 mm^2, AWG 14	0.52 mm^2, AWG 20	0.13 mm^2, AWG 26	0.79 mm^2, AWG 18
Dielectric	Gas injected Skin foam skin polyethylene (PE)			Foamed PE
Diameter (mm)	7.10	3.70	1.90	4.70
Screen 1	Aluminium/polyester foil 125% coverage			
Screen 2	Tinned oxygen free copper braid, >80% optical coverage			
Overall jacket	LSZH polymer			SHF1 LSZH polymer
Jacket colour	Water Blue RAL 5021			
Overall diameter (mm)	10.20 ± 0.30	5.90 ± 0.30	3.10 ± 0.15	7.00 ± 0.30
Bend radius	15 x overall diameter			
Operating temperature	-15 to +70 °C			

Electrical Specification

Part No.	**278-475-000**	**278-975-000**	**278-775-000**	**278-175-000**
Conductor resistance (Ohm/km)	< 8.2	< 35	< 145	< 24
Capacitance (pF/m)	52	56	56	60
Velocity of Propagation (%)	85	78	78	80
Impedance (Ohms)	75 ± 2	75 ± 2	75 ± 2	75 ± 2
Attenuation (dB/100m)				
10 MHz	1.50	2.70	6.10	2.00
135 MHz	4.82	8.45	20.80	7.31
180 MHz	5.55	10.21	24.00	8.35
270 MHz	6.86	12.50	29.40	10.30
743 MHz	12.00	21.97	47.98	17.75
1485 MHz	18.00	31.30	63.70	25.16
3000 MHz	26.90	46.20	115.00	35.50

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Part Numbers and Description

Part Number	Description	Max. Reel Length
278-475-000	Van Damme HD Vision RG11/U coax LSZH	500 m
278-975-000	Van Damme HD Vision RG59/U coax LSZH	500 m
278-775-000	Van Damme HD Vision Miniature coax LSZH	500 m
278-175-000	Van Damme HD Vision RG6/U coax LSZH	500 m

Recommended BNC Connectors

Cable	Connector	
278-475-000 RG11/U		Neutrik rearTWIST Large HD BNC NBLC75BVZ17
278-975-000 RG59/U	339-975-000	Van Damme HD-SDI BNC cable male RG59/U
		Neutrik rearTWIST HD BNC NBNC75BLP9
278-775-000 HD Mini	339-775-000	Van Damme HD-SDI BNC cable male HD Mini
		Neutrik rearTWIST Tiny HD BNC NBTC75BSS5
278-175-000 RG6/U	339-675-300	Van Damme HD-SDI BNC cable male RG6/U
		Neutrik rearTWIST HD BNC NBNC75BUU11

Connector selection criteria:

Cable	Conductor	Dielectric diameter	Overall diameter	Summary
278-475-000 RG11/U	1.62 mm	7.10 mm	10.20 mm	(1.6/7.1/10.2)
278-975-000 RG59/U	0.81 mm	3.70 mm	5.90 mm	(0.8/3.7/5.9)
278-775-000 HD Mini	0.41 mm	1.90 mm	3.10 mm	(0.4/1.9/3.1)
278-175-000 RG6/U	1.02 mm	4.70 mm	7.00 mm	(1.0/4.7/7.0)

Standards and Compliance

RoHS 2011/65/EU	Restriction of Hazardous Substances
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
IEC 60332.1	Fire retardancy of a single cable
IEC 60754.1	Amount of Halogen Gas Emissions
IEC 60754.2	Degree of acidity of released gases
IEC 61034.2	Measurement of smoke density

278-175-000 only:

IEC 60092-360:2014	Electrical Installations in ships - Sheathing materials for shipboard power and communication cables