



AVI series

AVI Series LSZH Audio Video Composite multicore



Van Damme AVI Series LSZH (Low Smoke Zero Halogen) is a composite multicore cable capable of transmitting RGBHV and composite video combined with 4 AES/EBU digital/analogue pairs and 3 tracers for extended distance TX/RX RS232 data. The multiple signal possibilities within this one cable make it ideal for a general tie line cable within installations - one cable pull will support a host of potential applications.

Applications

- Multiple signal Audio Visual tie lines
- Installation in public buildings, schools and colleges, Government premises and marine vessels

Application notes

- AES/EBU digital audio pairs also suitable for analogue audio, RS422, DMX and midi transmission
- 6 colour coded miniature coaxials for composite, SVHS, YUV, RGB and RGBHV (VGA) video formats
- 3 AWG20 tracer wires for RS232 or DC control voltages
- Jacket material specified as the thermoplastic polymer SHF1; compliant with IEC 60092 Electrical Installations in ships pt. 359 - Sheathing materials for shipboard power and communication cables
- 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 60134.2 Measurement of smoke density



AVI series

Miniature video coaxials

Mechanical specifications

Conductor	Material	bare ultra pure oxygen free copper
	Stranding	7x 0.12mm (0.08mm ²) AWG 30/7
Dielectric	Material	Foam Skin Polyethylene
	Average thickness	0.62mm
	Diameter	1.60mm ± 0.05
Screen	Material	tinned oxygen free braided copper wire
	Coverage	95%
	Dimension	16x5x0.10mm
Overall Jacket	Material	SHF1 LSZH thermoplastic polymer
		Red, Green, Blue, Black, White, Yellow
	Average thickness	0.30mm
	Overall diameter	2.60mm

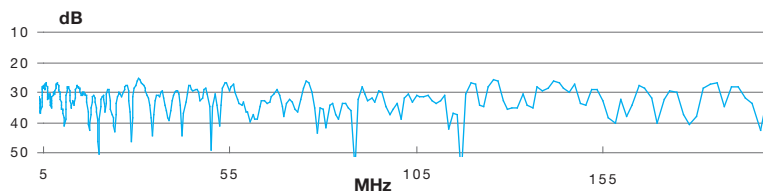
Physical properties unaged

Jacket (at 60°C)	Tensile strength	>9N/mm ²
	Elongation	>125%
	Heat shock test	150 °C x 1 hour - no cracks
Halogen Emissions	0.30% Halogen acid gasses according to IEC 60754-2	

Electrical Specifications

Resistance	Conductor	235 Ohm/km
	Shield	32 Ohm/km
	Insulation	> 5000 MOhm/km
Voltage test	1000V DC 1 minute OK	
Capacitance	56.5 pF/m	
Velocity of propagation	78%	
Impedance at 10MHz	75 Ohms ± 2	
Attenuation	5 MHz	4.91 dB/100m
	10 MHz	6.99 dB/100m
	50 MHz	15.77 dB/100m
	100 MHz	22.74 dB/100m
	135 MHz	26.64 dB/100m
	180 MHz	30.99 dB/100m

Structural return loss





AVI series

AES/EBU twisted pairs (continued)

Mechanical specifications

Conductor	Material	Bare ultra pure oxygen free copper wire
	Stranding	7 x 0.16mm (0.14mm ²) AWG 26/7
Insulation	Material	Foam skin polyolefin
	Average thickness	0.30mm
	Diameter	1.10mm ±0.10
	Colour coding	Red/Blue
Cabling	Type	Twisted pair
	Lay length	~25mm
Screen	Type	24µm Aluminium/polyester foil >150% coverage
	Drain wire	7 x 0.16 (0.14mm ²) AWG 26/7
Jacket	Material	SHF1 LSZH polymer Leaf green RAL 6002
	Average thickness	0.30mm
	Overall diameter	2.90mm ±0.10

Physical properties unaged

Jacket (at 60°C)	Tensile strength	>9N/mm ²
	Elongation	>125%
	Heat shock test	150 °C x 1 hour - no cracks
Halogen Emissions	≤0.30% Halogen acid gasses according to IEC 60754-2	

Electrical specifications

Resistance	Conductor	<144 Ohm/km
	Shield	<140
	Insulation	>5000 MOhm/km
Capacitance	Core to core	50 nominal pF/m
	Core to shield	100 nominal
Impedance	110 Ohms ±20%	
Attenuation at 3MHz	7.05 dB/100m	
Test voltage	1000 Vdc x 1 minute OK	

Tracer wires

Conductor	Material	Tinned copper wire
	Stranding	19x0.20mm AWG 20/19
Insulation	Material	Foam skin polyolefin
	Colour coding	Brown, Violet, Grey

Overall Mechanical specifications

Shield	Tape	Aluminium / Polyester
	Tape overlap	125%
	Braid	Tinned copper
	Dimensions	24x10x0.15mm
	Covering	86.5%
Jacket material	SHF1 LSZH polymer Jet Black RAL 9005	
Overall diameter	13.90mm	
Bend radius	15 x overall diameter	
Tensile strength	13.8 N/mm ²	
Elongation	282%	
Heat shock	150°C x 1 hour - No cracks	

Stock code	Description
278-006-043	Van Damme AVI Series LSZH 6 video 4 AES 3 tracer multicore