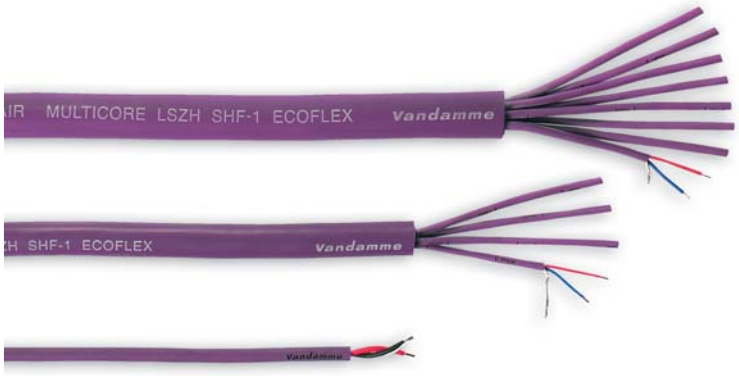
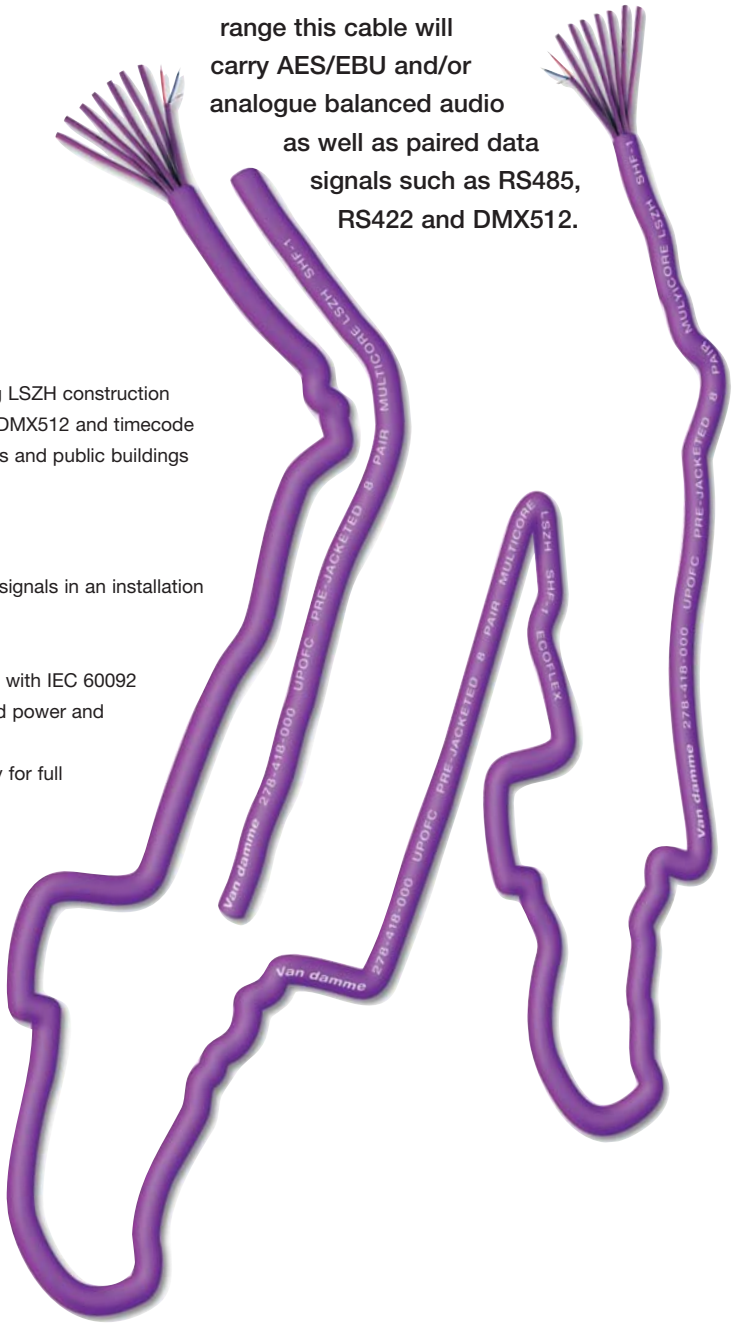
Vandamme cable

Purple Series Digilog Ecoflex AES/Analogue installation cable LSZH



Van Damme Purple Series Digilog Ecoflex is a Low Smoke Zero Halogen (LSZH) jacketed audio multicore specifically for installation use. The use of LSZH cables is becoming a specified essential in public buildings and new build construction projects. Based electrically and mechanically on the Van Damme Green Series range this cable will carry AES/EBU and/or analogue balanced audio as well as paired data signals such as RS485, RS422 and DMX512.



Applications

- Installed AES/EBU digital or analogue audio cable infrastructure requiring LSZH construction
- Any 100 to 110 Ohm balanced data application such as RS422, RS485, DMX512 and timecode
- Installation in marine vessels, schools and colleges, government premises and public buildings
- Equipment rack wiring where LSZH materials have been specified

Application notes

- For the transmission of analogue and digital audio, paired data and midi signals in an installation environment from 1 - 8 pairs
- Multicore types have 26AWG conductors for a reduced overall diameter
- Jacket material specified as the thermoplastic polymer SHF-1; 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 (see glossary for full description)
- IEC 60332.1 Fire resistance 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
- Ultra pure oxygen free copper for outstanding sonic integrity

purple series

Multicore cables 2, 4, and 8 pairs

Pair specifications

Conductor	Material	Bare ultra pure oxygen free copper wire
	Stranding	7 x 0.16mm (0.14mm²) 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 (0.14mm²) AWG 26/7
Jacket	Material	SHF-1 LSZH polymer Red Lilac RAL 4001
	Average thickness	0.30mm
	Overall diameter	2.90mm ±0.10

Overall jacket

Overall jacket	Material	SHF-1 LSZH thermoplastic polymer
	Colour	Red Lilac RAL 4001
	Average thickness	See characteristics by stock code
Bend radius		10 x overall diameter

Physical properties unaged

Jacket (at 60°C)	Tensile strength	>9N/mm²
	Elongation	>125%
	Heat shock test	150 °C x 1 hour - no cracks
Halogen Emissions	0.30% Halogen acid gases according to IEC 60754-2	

Electrical characteristics

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

Vandamme cable

1 pair cable 278-401-000

Pair specifications			
Conductor	Material	Bare ultra pure oxygen free copper wire	
	Stranding	7 x 0.20mm (0.22mm²) AWG 24/7	
Insulation	Material	Foam skin polyolefin	
	Average thickness	0.20mm	
	Diameter	1.40mm ±0.10	
	Colour coding	Red/black	
Cabling	Type	Twisted pair	
	Lay length	~25mm	
Screen	Type	24µm Aluminium/polyester foil >150% coverage	
	Drain wire	7 x 0.20mm (0.22mm²) AWG 24/7	
Jacket	Material	SHF-1 LSZH polymer Red Lilac RAL 4001	
	Average thickness	0.50mm	
	Overall diameter	3.90mm ±0.15	
Physical properties unaged			
Jacket (at 60°C)	Tensile strength	>9N/mm²	
	Elongation	>125%	
	Heat shock test	150 °C x 1 hour - no cracks	
Electrical characteristics			
Resistance	Conductor	Ohm/Km	<90
	Shield		<70
	Insulation	M Ohm/Km	>5000
Capacitance	Core to core	pF/m	50 nominal
	Core to shield		100 nominal
Impedance		110 Ohms ±20%	
Test voltage		1000 Vdc x 1 minute OK	

Super AES 1 pair cable 278-431-000

Pair specifications			
Conductor	Material	Bare ultra pure oxygen free copper wire	
	Stranding	7 x 0.25mm (0.34mm²) AWG 22/7	
Insulation	Material	Foam skin polyolefin	
	Diameter	1.75mm ±0.10	
	Colour coding	Red & Black	
Cabling	Type	Twisted pair	
	Lay length	~25mm	
Screen	Type	24µm Aluminium/polyester foil >100% coverage	
	Drain wire	7 x 0.25mm (0.34mm²) AWG 22/7	
Overall jacket			
Overall jacket	Material	SHF-1 LSZH thermoplastic polymer	
	Colour	Red Lilac RAL 4001	
	Average thickness	See characteristics by stock code	
Bend radius		10 x overall diameter	
Physical properties unaged			
Jacket (at 60°C)	Tensile strength	>9N/mm²	
	Elongation	>125%	
	Heat shock test	150 °C x 1 hour - no cracks	
Halogen Emissions	0.30% Halogen acid gases according to IEC 60754-2		
Electrical characteristics			
Resistance	Conductor	Ohm/Km	<58.8
	Insulation	M Ohm/Km	>5000
Capacitance	Core to core	pF/m	40 nominal
	Core to shield		80 nominal
Impedance (1-3 MHz)		110 Ohms ±20%	
Attenuation at 3MHz		4.90 dB/100m	
Test voltage		500 Vdc x 1 minute OK	

purple series

Characteristics by stock code

Stock code	Overall diameter mm	Jacket thickness mm	Weight Kg/Km	Construction and lay up
278-431-070	4.50	0.50	Call	22AWG 1 pair, foil screened
278-401-000	3.90	0.50	30	1 pair, foil screened
278-414-070	9.20	1.00	100	Cotton fillers + 4 pairs, 100mm lay
278-418-070	12.20	1.20	200	Cotton fillers + 1 pair, 1st layer 7 pairs, 140mm lay

• Maximum reel length 500 metres