

9 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 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
- Ultra pure oxygen free copper for outstanding sonic integrity

purple series

Multicore cables 2, 4, 8, 12 and 24 pairs

Pair 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	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/mm ²
	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	



cable

1 pair cable 278-401-000

Pair specifications

Conductor	Material	Bare ultra pure oxygen free copper wire
	Stranding	7 x 0.20mm (0.22mm ²) 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 (0.22mm ²) 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/mm ²
	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	

Characteristics

Stock code	Overall diameter mm	Jacket thickness mm	Weight Kg/km	Construction and lay up
278-401-000	3.90	0.50	16	1 pair, foil screened
278-412-070	7.50	0.75	60	Cotton fillers + 2 pairs, 100mm lay
278-414-070	9.20	1.00	85	Cotton fillers + 4 pairs, 100mm lay
278-418-070	12.20	1.20	135	Cotton fillers + 1 pair, 1st layer 7 pairs, 140mm lay
278-422-070	15.00	1.50	223	Cotton fillers + 3 pairs, 1st layer 9 pairs 100/200mm lay
278-424-070	20.00	1.50	390	Cotton fillers + 2 pairs, 1st layer 8 pairs, 2nd layer 14 pairs 180/230mm lay

- Maximum reel length 500 metres

Description

Stock code	Description
278-401-000	Van Damme Purple Series Digilog 1 pair
278-414-070	Van Damme Purple Series Digilog 4 pair
278-418-070	Van Damme Purple Series Digilog 8 pair
278-422-070	Van Damme Purple Series Digilog 12 pair
278-424-070	Van Damme Purple Series Digilog 24 pair