# **DRTRONICS** DATASHEET



Cat 6A S/FTP Low Smoke Zero Halogen Cable



Category  $6_A$  S/FTP LSZH cables are designed to deliver a robust standards based performance ensuring optimum bandwidth for today's high speed network applications. The cable is designed to support horizontal networking applications over distances up to 100 metres.

Each Category  $6_A$  S/FTP LSZH exceed the minimum specified performance for Category  $6_A$  S/FTP cables and support all CLASS EA applications as defined within ISO/IEC 11801 (2nd Edition): 2010 such as 10GBASE-T (Gigabit Ethernet), 2G FCBASE-T, 4G FCBASE-T and 1000BASE-T (Gigabit Ethernet).

## FEATURES

Pair colour code:

- Pair 1:White/Blue, and Blue
- Pair 2:White/Orange, and Orange
- Pair 3:White/Green, and Green
- Pair 4:White/Brown, and Brown

## SPECIFICATION

CONSTRUCTION					
Conductor	23AWG solid copper				
Insulation	Expanded Polyethylene				
Cable	8 insulated wires formed into 4 pairs. Each pair is individually screened with an aluminised polyester tape. (The aluminium side of the tape aces outwards and is in continuous contact with the tinned copper drain wire).				
Screen	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire.)				
Sheath	A uniform layer of Violet coloured Low Smoke Zero Halogen (LSZH) compound (RAL 4005)				
Diameter	7.5mm ± 0.3mm				
Electrical properties at 20ºC					
Characteristic Impedance (1-100MHz) (100-250MHz)	$100 \pm 15\Omega$ $100 \pm 18\Omega$				
DC loop resistance	≤ 19.0Ω/100m				
Resistance unbalance	≤ 2%				
Capacitance unbalance to earth	≤ 1600 pF/km				
Delay Skew	≤ 40ns/100m @ 100MHz				
Nominal velocity of propagation	78%				
Propagation delay (Nominal)	≤ 534ns/100m				
Test voltage (d.c. for 1 minute) Conductor/Conductor 1000V					
Insulation resistance (500V d.c)	≥ 500MΩ.km				
Coupling attenuation	≥ 55dB				

#### CONSTRUCTION

#### Mechanical CharacteristicsTemperature Range

Operation	-20°C to + 60°C
Installation	0°C to +50°C
Storage	-20°C to + 70°C
Maximum Tensile Force	
During Installation	100N
Minimum Bend Radii	
Installation	8 x Cable Diameter
Installed	4 x Cable Diameter

## TRANSMISSION LINE PERFORMANCE AT 20°C

FREQUENC MHZ	Y ATTENUATION DB/100M	NEXT DB	ACR MIN DB	PSNEXT MIN DB	ELFEXT MIN DB	PSELFEXT MIN DB	PSANEXT MIN DB	RETURN LOSS
1	1.8	95.0	93.2	95.0	68.0	65.0	-	-
4	3.8	66.3	62.5	66.3	58.0	55.0	76.5	23
10	5.9	60.3	54.4	60.3	50.0	47.0	72.5	25
20	8.4	55.8	47.4	55.8	44.0	41.0	69.5	25
62.5	15.0	48.4	33.4	48.4	34.1	31.1	64.5	21.5
100	19.1	45.3	26.2	45.3	30.0	27.0	62.5	20.1
250	31.1	29.3	8.2	39.3	22.0	19.0	56.5	17.3
500	45.3	34.8	-10.5	34.8	16.0	13.0	52.0	17.3

#### STANDARDS COMPLIANCE

The Category 6<sub>A</sub> S/FTP LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- ISO/IEC 11801 2nd Edition
- ANSI/TIA 568-C.2
- EN 50173
- IEC 61156-5EN 50288-3-1

Category  $6_A$  S/FTP LSZH cables exceed the requirements of:

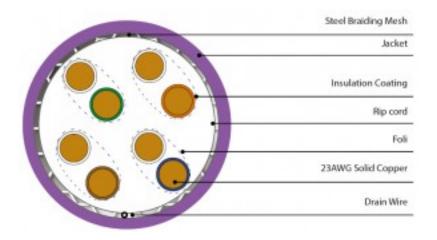
- IEC 60332-1-2
- IEC 60754-2
- IEC 61034

#### ORDERING INFORMATION

DESCRIPTION Category 6A S/FTP LSZH 500m Reel PART NO. SFTP6A500LSZH

Please contact our sales team on +44 (0) 1908 441 121 for further ordering information.

**TECHNICAL DRAWING** 



CONTACT OUR SALES TEAM TODAY

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