

Section 12 Fire Integrity Cable - London Underground

Eland Product Group **AFT**

Application

For installation typically in public help points (PHP), public address (PA), station announcement platforms (SAP) & CCTV camera power systems. This Low Smoke Zero Halogen cable has been designed to provide superior flame retardance and circuit integrity, together with optimised ease of installation characteristics and complies with LU Section 12 station regulations.

Standards

BS7629-1, BS 5839-1:2002, BS 5839-1:2002, BS 8434-1:2003, BS EN 50200 PH30, BS 6387 C W Z, IEC 60332-3, IEC 60332-1, BS EN 50265, BS EN 50266, IEC 60754, BS EN 50267, IEC 61034, BS EN 50268

Conductor

Class 1 solid or Class 2 stranded annealed plain copper conductors to BS EN 60228:2005 (previously BS6360)

Insulation

Silicone rubber

Separator

Unspecified material

Screen

Aluminium/polyester laminated tape

Drain Wire

Tinned copper

Sheath

High performance, thermoplastic LSZH (Low Smoke Zero Halogen)

Sheath Colour

White

Voltage

300/500 V

Temperature Rating

-40°C to +90°C

This cable should not be flexed when either the ambient or cable temperature is below 0°C

Minimum Bending Radius

6 x overall diameter

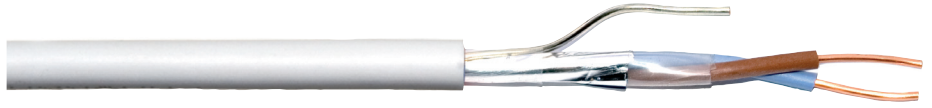
Core Identification

2 Cores: Brown, Blue

3 Cores: Brown, Black, Grey

4 Cores: Blue, Brown, Black, Grey

7 Cores: Blue, Brown, Black, Grey



Dimensions

Eland Part Number	No. of Cores x Nominal Cross Sectional Area # x mm ²	Nominal Overall Diameter mm	Nominal Weight kg/Km
AFT02010WH	2 x 1.00	7.0	83
AFT02015WH	2 x 1.50	7.9	110
AFT02025WH	2 x 2.50	9.3	160
AFT03010WH	3 x 1.00	7.3	95
AFT03015WH	3 x 1.50	8.3	128
AFT03025WH	3 x 2.50	9.9	190
AFT04010WH	4 x 1.00	8.2	115
AFT04015WH	4 x 1.50	9.5	160
AFT04025WH	4 x 2.50	11.3	235
AFT07015WH	7 x 1.00	10.5	175
AFT07025WH	7 x 1.50	12.2	250

Conductors

Class 1 solid conductors for Single Core and Multi-Core cables

1	2
Nominal Cross Sectional Area mm ²	Maximum Resistance of Conductor at 20°C
	Circular, Annealed Copper Conductors
	Plain ohms/Km
1.00	18.1000
1.50	12.1000
2.50	7.4100
4.00	4.6100

Table in accordance with BS EN 60228:2005 (previously BS6360)

Class 2 stranded conductors for Single Core and Multi-Core cables

Nominal Cross Sectional Area mm ²	Minimum Number of Wires in the Conductor		Maximum Resistance of Conductor at 20°C
	Circular	Circular Compacted	Annealed Copper Conductor
			Plain Wires ohms/Km
	Cu	Cu	
1.00	7	-	18.1000
1.50	7	6	12.1000
2.50	7	6	7.4100
4.00	7	6	4.6100

Table in accordance with BS EN 60228:2005 (previously BS6360)

Electrical Characteristics

Current Carrying Capacity (amperes)

Nominal Cross Sectional Area mm ²	Current rating DC or single phase AC Enclosed Amps	Current rating DC or single phase AC Amps	Volt drop DC or single phase AC mV/A/m
1.00	13.0	15.0	44
1.50	16.5	19.5	29
2.50	23.0	27.0	18
4.00	30.0	36.0	11

Temperature Ratings Factor

Ambient Temperature	25°C	30°C	35°C	40°C	45°C	50°C
Rating Factor	1.03	1.00	0.94	0.60	0.57	0.54

Rating Factors for Groupings

Number of circuits	2	3	4	5	6	7
Rating Factor	0.80	0.70	0.65	0.60	0.57	0.54