

FIRECEL® SR 114H Standard Cable

Eland Product Group **A6F**



Application

Firecel SR 114H is primarily intended for use in fire detection and fire alarm systems, emergency lighting circuits or if cables need to properly operate when fire resistance is required

Standards

BS 5839-1:2002
Code of practice for fire system design, installation, commissioning and maintenance.

BS 7629-1:2008
Low emission of smoke and corrosive gases

BS EN 50200 PH30 (all sizes)
*Temperature: 830 °C
Flame and shock for 30 minutes.*

BS EN 50200 PH60 (1.5mm² and above)
*Temperature: 830 °C
Flame and shock for 60 minutes.*

EN 50200 Annex E (previously BS 8434-1: 2003)
*Temperature: 830 °C
Flame and shock for 15 minutes.
+ flame, shock and water for 15 minutes.*

BS 6387
*Category C-W-Z
C - Resistance to fire at 950°C for 3 hours.
W - Resistance to fire with water at 950°C for 3 hours
Z - Resistance to fire with mechanical shock at 950°C for 3 hours*

Technical Data

Conductor

Plain annealed copper to BS EN 60228:2005 (previously BS6360).
Solid (Class 1) for 1 - 1.5 - 2.5mm². Stranded (Class 2) for 4mm².

*1.5 - 2.5mm² are available with stranded conductors (Class 2)
(SR 114H-R)

Insulation

High performance silicone rubber EI2 to BS EN 50363-1

Electrostatic Screen

Aluminium/polyester tape. 125% coverage.

Earth Conductor

Tinned annealed copper to BS EN 60228:2005 (previously BS6360)
(drain wire for multicore cables.)

Sheath

LSZH thermoplastic material Type LTS3 to BS 7655-6.1.

Sheath Colour

White or Red

Voltage Rating

300/500V

Operating Temperature

-40°C to +90°C

Minimum Bending Radius

6 x Overall Diameter

Core Identification

2 Cores + E: Blue, Brown

3 Cores + E: Brown, Black, Grey

4 Cores + E: Blue, Brown, Black, Grey

7 Cores*: Centre: Brown

1st Layer: Brown, Black, 4 x White

12 cores*: Centre: Brown, Black, White

1st Layer: Brown, Black, 7 x White

19 cores*: Centre: Brown

1st Layer: Brown, Black, 4 x White

2nd Layer: Brown, Black, 10 x White

*Numbered Cores available on request.

Installation

Firecel Cable is easy to handle and install without the need for specialist equipment. The cable can be attached directly to a surface using LSZH coated copper P clips, available with the cables. Plastic clips can not be used. Firecel Cable can also be installed directly into trays or conduit, or buried in plaster. Firecel Cable is suitable for use in protected outdoor environments.

Dimensions

Eland Part Number	No. of Conductors x Nominal Cross Sectional Area mm ²	Conductor Size #/mm	Size of Earth Wire #/mm	Nominal Overall Diameter mm	Net Weight kg/km	P Clips Type
A6F2010*	2 x 1.0	1/1.13	1/1.13	7.1	70	AC7
A6F3010*	3 x 1.0	1/1.13	1/1.13	8.0	85	AC8
A6F4010*	4 x 1.0	1/1.13	1/1.13	8.3	110	AC9
A6F2015*	2 x 1.5	1/1.38	1/1.38	8.0	95	AC8
A6F3015*	3 x 1.5	1/1.38	1/1.38	8.5	115	AC9
A6F4015*	4 x 1.5	1/1.38	1/1.38	9.4	150	AC11
A6F2025*	2 x 2.5	1/1.75	1/1.75	9.4	135	AC11
A6F3025*	3 x 2.5	1/1.75	1/1.75	10.0	170	AC11
A6F4025*	4 x 2.5	1/1.75	1/1.75	11.0	210	AC12
A6F2015*	2 x 1.5	7/0.53	7/0.53	8.4	106	AC8
A6F3015*	3 x 1.5	7/0.53	7/0.53	8.9	134	AC9
A6F4015*	4 x 1.5	7/0.53	7/0.53	9.8	166	AC11
A6F2025*	2 x 2.5	7/0.67	7/0.67	9.9	145	AC11
A6F3025*	3 x 2.5	7/0.67	7/0.67	10.3	180	AC11
A6F4025*	4 x 2.5	7/0.67	7/0.67	11.8	250	AC12
A6F2040*	2 x 4.0	7/0.85	7/0.85	11.5	210	AC12
A6F3040*	3 x 4.0	7/0.85	7/0.85	12.2	260	AC13
A6F4040*	4 x 4.0	7/0.85	7/0.85	13.5	330	AC14
A6F7010*	7 x 1.0	1/1.13	1/0.80 ¹	10.0	165	AC11
A6F7015*	7 x 1.5	1/1.38	1/0.80 ¹	11.3	225	AC12
A6F1210*	12 x 1.0	1/1.13	1/0.80 ¹	12.5	255	AC13
A6F1215*	12 x 1.5	1/1.38	1/0.80 ¹	14.5	350	AC15
A6F1910*	19 x 1.0	1/1.13	1/0.80 ¹	15.0	380	AC16
A6F1915*	19 x 1.5	1/1.38	1/0.80 ¹	17.0	520	AC16

¹ drain wire

Note: cables up to 4 cores = Standard Products LPCB Approved.

Eland Part Numbers shown above designate the sheath colour (). For each colour substitute * for a colour code as listed below.

Colour	Red	White
Code	RD	WH

Conductors

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

1 Nominal Cross Sectional Area mm ²	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

1 Nominal Cross Sectional Area mm ²	2	8
	Minimum Number of Wires in the Conductor	Maximum Resistance of Conductor at 20°C
	Circular Annealed Copper Conductor	
	Cu	Plain Wires ohms/Km
1.00	7	18.1000
1.50	7	12.1000
2.50	7	7.4100
4.00	7	4.6100

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

Electrical Characteristics

Current Carrying Capacity (amperes)

Nominal Cross Sectional Area mm ²	Clipped Direct		In Conduit	
	1 x Two Core Cable Amps	1 x Three/Four Core Cable Amps	1 x Two Core Cable Amps	1 x Three/Four Core Cable Amps
1.00	19	17	17	15.0
1.50	24	22	22	19.5
2.50	33	30	30	26.0
4.00	45	40	40	35.0

Conductor operating temperature: 90 °C

Ambient temperature: 30 °C

Voltage Drop (per ampere per metre)

Conductor Cross Sectional Area mm ²	Clipped Direct		In Conduit	
	1 x Two Core Cable mV/A/m	1 x Three/Four Core Cable mV	1 x Two Core Cable mV	1 x Three/Four Core Cable mV
1.00	45	39	45	39
1.50	30	26	30	26
2.50	18	15	18	15
4.00	11	10	11	10

Conductor operating temperature: 90 °C

Ambient temperature: 30 °C

Rating factors

Ambient Temperature

Ambient Temperature	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C
Rating Factor	1.04	1.00	0.95	0.90	0.85	0.80	0.74	0.67	0.60

For Grouping

Number of cables	2	3	4	5	6	8	10	12	14	16	18	20
Rating Factor	0.80	0.70	0.65	0.60	0.57	0.52	0.48	0.45	0.43	0.41	0.39	0.38

Nominal Capacitance

Conductor Cross Sectional Area mm ²	Nominal Capacitance (pF/m)	
	Core/Core	Core/Screen
1.00	100	170
1.50	110	190
2.50	130	220
4.00	160	270

The information contained within this datasheet is for guidance only. When selecting accessories such as cleats, glands, etc please note that actual cable dimensions may vary due to manufacturing tolerances.