

# Fire Detection and Alarm System Cables

## Two Core, Overall Screen, LSZH-HFFR

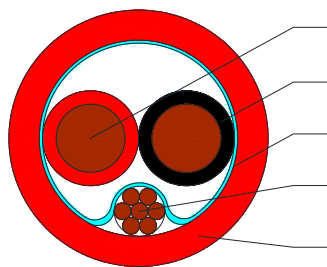


C5166, C5167, C5168, C5169

### Applications

Screened two core cable suitable for Fire Detection and Alarm Systems.

### Cross Section Drawing



Conductor  
 Insulation  
 Al/PET Tape  
 Drain Wire  
 Sheath



### Design

Unit	Properties
Conductor	2 x Bare Copper wire
Insulation	Halogen Free Flame Retardancy (HFFR) Core 1: Black Core 2: Red
Screen	Aluminium/Polyester 100% Coverage
Drain Wire	22 AWG (7 x 30) Tinned Copper wire
Sheath Material	Halogen Free Flame Retardancy (HFFR) Colour: Red
Standard Put Up Length	305 metres

\*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

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## Two Core, Overall Screen, LSZH-HFFR



### C5166, C5167, C5168, C5169

#### Physical Characteristics

Part Number	C5166	C5167	C5168	C5169
No of Cores x AWG Gauge	2 x 18AWG	2 x 16AWG	2 x 14AWG	2 x 12AWG
Nom. Diameter Conductor (mm)	1.02	1.29	1.63	2.05
Nom. Radial Thickness Insulation (mm)	0.4	0.4	0.6	0.6
Nom. Diameter Drain Wire (mm)	0.75			
Nom. Diameter Insulation (mm)	1.90	2.10	2.83	3.2
Nom. Radial Thickness Sheath (mm)	0.9	0.9	1.0	1.1
Nom. Overall Diameter (mm)	5.9	6.1	7.8	8.7
Operating Temperature (°C)	-40 to +90			
Max. Recommended Pulling Tension (N)	215	345	552	876
Min. Bend Radius (install) (mm)	59	61	78	87
Nominal Cable Weight (kg/km)	47.9	58.4	87.5	120.1

#### Electrical Characteristics at 20°C

Part Number	C5166	C5167	C5168	C5169
No of Cores x AWG Gauge	2 x 18AWG	2 x 16AWG	2 x 14AWG	2 x 12AWG
Max. DC Resistance Conductor ( $\Omega$ /km)	22.7	15.47	9.36	5.61
Max. DC Resistance Screen ( $\Omega$ /km)	52.7			
Capacitance conductor to conductor (pF/m)	160	189	160	216
Capacitance cond. To other cond.+screen (pF/m)	297	358	340	424
Nominal Inductance ( $\mu$ H/m)	0.3	0.5	0.6	0.6
Max. Recommended Current at 25°C(Amps)	5.3	11	18	24
Max. Operating Voltage (Vrms)	300			

#### Reference Standards

IEC 61034	IEC 60332-3-24
IEC 60754-1&-2	RoHS directives