

# Fire Detection and Alarm System Cables

## Two Core, Overall Screen, SWA Armoured FPLR Type

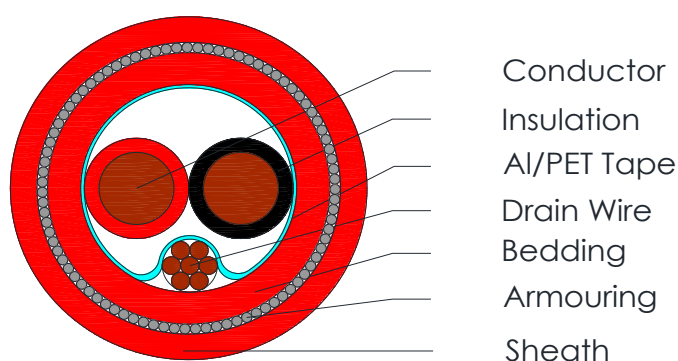


C4145, C4146, C4147, C4148

### Applications

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

### Cross Section Drawing



### Design

Unit	Properties
Conductor	2 x Bare Copper wire
Insulation	Polyvinyl Chloride Core 1: Black Core 2: Red
Screen	Aluminium/Polyester 100% Coverage
Drain Wire	22 AWG (7 x 30) Tinned Copper wire
Bedding	Flame-Retardant Polyvinyl Chloride
Armour	Galvanized Steel Wire
Sheath	Flame-Retardant Polyvinyl Chloride Colour: Red
Standard Put Up Length	500 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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### C4145, C4146, C4147, C4148

#### Physical Characteristics

Part Number	C4145	C4146	C4147	C4148
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 Bedding (mm)	0.9	0.9	1.0	1.1
Nom. Bedding Diameter (mm)	5.9	6.1	7.8	8.7
Nom. Armour Wire Diameter (mm)	0.90	0.90	0.90	0.90
Nom. Radial Thickness Sheath (mm)	1.40	1.40	1.40	1.40
Nom. Sheath Diameter (mm)	10.50	10.90	12.40	13.5
Operating Temperature (°C)	-40 to +105			
Min. Bend Radius (install) (mm)	189	196	223	243
Nominal Cable Weight (kg/km)	242	255	335	393
Fire Retardancy	FPLR	FPLR	FPLR	FPLR

#### Electrical Characteristics at 20°C

Part Number	C4145	C4146	C4147	C4148
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

UL 1666 – UL1424 FPLR

RoHS directives