

# Fire Detection and Alarm System Cables

## Two Core, Overall Screen, FPLR Type



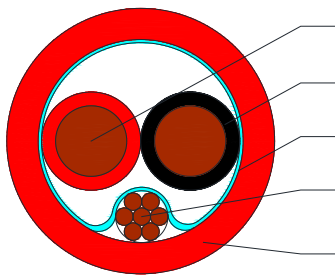
C1040, C1041, C1042, C1043



### Applications

Screened two core cable suitable for Fire Detection and Alarm Systems. UL Listed E486465.

### Cross Section Drawing



Conductor  
Insulation  
Al/PET Tape  
Drain Wire  
Sheath



### 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
Sheath Material	Flame-Retardant Polyvinyl Chloride 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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### C1040, C1041, C1042, C1043

#### Physical Characteristics

Part Number	C1040	C1041	C1042	C1043
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)	0.25	0.25	0.25	0.25
Nom. Diameter Drain Wire (mm)	0.75			
Nom. Diameter Insulation (mm)	1.55	1.80	2.13	2.55
Nom. Radial Thickness Sheath (mm)	0.4	0.4	0.4	0.4
Nom. Overall Diameter (mm)	4.0	4.5	5.2	6.0
Operating Temperature (°C)	-40 to +105			
Max. Recommended Pulling Tension (N)	215	345	552	876
Min. Bend Radius (install) (mm)	40	45	52	60
Nominal Cable Weight (kg/km)	29.1	39.5	55.5	80.0
Fire Retardancy	FPLR	FPLR	FPLR	FPLR

#### Electrical Characteristics at 20°C

Part Number	C1040	C1041	C1042	C1043
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)	195	220	250	290
Capacitance cond. To other cond.+screen (pF/m)	400	430	480	560
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