

### Applications

Screened two core  
Fire Resistant cable for  
Building and Industrial  
Management Systems

### Sector - BT FIREPRO-TEC™

Standard Fire Alarm Cables

### Standard Put Up Length

100 and 500 metres

### Design

1. **Conductor**  
2 x Plain Annealed  
Copper wire
2. **Insulation**  
Silicon Rubber blend  
Core 1: Blue,  
Core 2: Brown
3. **Cable Core lay-up**  
Two twisted wires  
10 twists per metre
4. **Continuity Wire**  
Tinned  
Copper wire
5. **Screen**  
Aluminium/Polyester  
115% Coverage
6. **Sheath Material**  
Halogen Free  
Flame-Retardant (HFFR)



### Physical Characteristics

BTCL Part Number	Unit	BTC1851	BTC1852	BTC1853	BTC1854
No of cores x cross section in sq. mm	mm <sup>2</sup>	2 x 1.0	2 x 1.5	2 x 2.5	2 x 4.0
Nom. Diameter Conductor	mm	1 x 1.13	1 x 1.4	1 x 1.8	7 x 0.85 = 2.55
Nom. Radial Thickness Insulation	mm	0.7	0.7	0.8	0.9
Nom. Cross Section Continuity Wire	mm <sup>2</sup>	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	7.2	7.4	8.7	10.6
Cable weight	kg/km	77	85	119	180

### Electrical Characteristics (at 20°C)

BTCL Part Number	Unit	BTC1851	BTC1852	BTC1853	BTC1854
No of cores x cross section in sq. mm	mm <sup>2</sup>	2 x 1.0	2 x 1.5	2 x 2.5	2 x 4.0
Max. DC Resistance Conductor	Ω/km	18.1	12.1	7.41	4.61
Mutual Capacitance	pF/m	70	87	94	111
Min. Insulation Resistance	MΩ*km	200	200	200	200
Max. recommended current at 25°C	Amps	15	19.5	27	36
Max. Operating Voltage	Vrms	300/500	300/500	300/500	300/500

### Miscellaneous

BTCL Part Number	Unit	BTC1851	BTC1852	BTC1853	BTC1854
No of cores x cross section in sq. mm	mm <sup>2</sup>	2 x 1.0	2 x 1.5	2 x 2.5	2 x 4.0
Operating Temperature	°C	-40 to +90	-40 to +90	-40 to +90	-40 to +90
Installation Temperature	°C	0 to 70	0 to 70	0 to 70	0 to 70
Minimum bending radius	mm	43.2	44.4	52.2	63.6
Max. recommended pulling tension	N	265	405	670	1250
Fire Resistance to BSEN 50200 (PH30, PH60 & PH120)		Exposed to fire at 834°C and mechanical shock for 30, 60 or 120 minutes			
Fire Resistance to BSEN 50200 Annex E		Exposed to fire at 834°C and mechanical shock for 15, then exposed to fire at 834°C, mechanical shock and water spray for 15 minutes.			
Fire Resistance to BS6387, Cat. C		Exposed to fire at 950°C for 3 hours			
Fire Resistance to BS6387, Cat. W		Exposed to fire at 650°C for 15 minutes, then exposed to fire at 650°C with water for 15 minutes			
Fire Resistance to BS6387, Cat. Z		Exposed to fire and mechanical shock at 950°C for 15 minutes,			
Fire Resistance to IEC 60331-21		Exposed to fire at 750°C for 90 minutes			
Fire Retardancy		IEC 60332-1			
Other relevant standards		BS EN 50267-2-1, BS EN 61034-2, BS 6234, BS 6360, BS 7655.1.1 and BS7655.6.1			