

## Applications

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



## Physical Characteristics

BTCL Part Number	Unit	BTC1874	BTC1848	BTC1849	BTC1850
No of cores x cross section in sq. mm	mm <sup>2</sup>	4 x 1.0	4 x 1.5	4 x 2.5	4 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 CPC	mm <sup>2</sup>	1.0	1.5	2.5	4.0
Nom. Overall Diameter	mm	8.2	9.0	11.4	13.75
Cable weight	kg/km	109	145	222	310

## Electrical Characteristics (at 20°C)

BTCL Part Number	Unit	BTC1874	BTC1848	BTC1849	BTC1850
No of cores x cross section in sq. mm	mm <sup>2</sup>	4 x 1.0	4 x 1.5	4 x 2.5	4 x 4.0
Max. DC Resistance Conductor	Ω/km	18.1	12.1	7.41	4.61
Mutual Capacitance	pF/m	70	75	85	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	BTC1874	BTC1848	BTC1849	BTC1850
No of cores x cross section in sq. mm	mm <sup>2</sup>	4 x 1.0	4 x 1.5	4 x 2.5	4 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	50	54	69	83
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 at 650°C for 15 minutes, then exposed to fire at 650°C with mechanical shock 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			