

### Applications

Building Management Systems (BMS), RS-485 Applications

### Sector – BT BMS-TEC™

Computer Cables

### Standard References

IEC 60332-3-24  
IEC 61034  
IEC 60754-1 & 2  
RoHS directives  
(BS)EN 50290

### Design

#### 1. Conductor

Tinned Copper wire, flexible

#### 2. Insulation

Polyethylene (PE)

Wire 1: **White** with *blue* stripe  
Wire 2: **Blue** with *white* stripe  
Wire 3: **White** with *orange* stripe  
Wire 4: **Orange** with *white* stripe  
Wire 5: **White** with *green* stripe  
Wire 6: **Green** with *white* stripe  
Wire 7: **White** with *brown* stripe  
Wire 8: **Brown** with *white* stripe

#### 3. Cabling

Pair 1: wire 1 x wire 2 twisted  
Pair 2: wire 3 x wire 4 twisted  
Pair 3: wire 5 x wire 6 twisted  
Pair 4: wire 6 x wire 8 twisted  
Cable core: N pairs twisted

#### 5. Screen

Aluminium/Polyester  
100% Coverage

#### 4. Braid

Tinned Copper  
Coverage,  
see table below

#### 5. Outer Screen Drain Wire

Tinned Copper  
24AWG (7 x 32)

#### 6. Ripcord

#### 5. Sheath Material

Halogen-Free,  
Flame Retardant (HFFR)  
Standard Colour: Purple

#### Standard Put Up Length

305 or 500 metres

### Physical Characteristics

BTCL Part Number	Unit	C1318	C1319	C1320	C1321
No of pairs		1	2	3	4
Conductor Gauge	AWG	24	24	24	24
Conductor configuration	AWG	7 x 32	7 x 32	7 x 32	7 x 32
Nom. Radial Thickness Insulation	mm	0.6	0.6	0.6	0.6
Coverage braid	%	90	90	90	90
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.9	8.5	9.0	9.9

### Electrical Characteristics

BTCL Part Number	Unit	C1318	C1319	C1320	C1321
Nom. DC Resistance Conductor	Ω/km	82.7	82.7	82.7	82.7
Nom. DC Resistance Screen	Ω/km	11.7	15	16	7.3
Nominal Impedance	Ω	120	120	120	120
Capacitance core to core	pF/m	41	42	42	42
Capacitance core to rest	pF/m	82	81	80	80
Nom. Attenuation at 1 MHz	dB/100m	0.6	0.6	0.6	0.6
Nom. Velocity of Propagation	%	66	66	66	66
Max. Recom. Current @ 25°C	Amps	2.1	2.1	1.54	1.54
Max. Operating Voltage	Vrms	300	300	300	300

### Miscellaneous

BTCL Part Number	Unit	C1318	C1319	C1320	C1321
Fire Retardancy		IEC 60332-3C			
Low Smoke		IEC 61034			
Max. Pulling Tension	N	320	385	460	485
Min. Bend Radius (install)	mm	60	85	90	100
Nominal Cable Weight	kg/km	49	80.5	92.6	114.4
Operating Temperature	°C	-25 / +75	-25 / +75	-25 / +75	-25 / +75