

Part #s	Length	# of Pairs	AWG	Outer Diameter	Weight
RP6600100M4	100m (328')	4	22	0.413"	39 lbs.
RP6600300M4	300m (984')	4	22	0.413"	105 lbs.



### **Description:**

- CI 2 Hour Fire-Rated Shielded Communication Cable
- IE SF/UTP 4x2xAWG22/1 Cable with Circuit Integrity Behavior
- Rated for both horizontal and vertical runs

### **Applications:**

- Campus Wiring, Riser Applications, Horizontal Backbone Wiring, Building Control Systems, Intelligent Fire Alarm Systems. Circuit integrity structured wiring alarm cable compatible with all known connection systems to EN 50173.
- IEEE 802.3: 10Base-T; (100Base-T <75m), IEEE 802.5 16 MB; ISDN; TPDDI; ATM RS485 (10Mbits)

### **Construction:**

Conductor	Bare copper wire, Ø 0.65 mm (AWG 22) 0.332mm <sup>2</sup>
Insulation	PE/Silicone Rubber <sup>1</sup> , Ø PE 1.0mm and Silicone Rubber 1.7 mm
Twisting	2 cores to the pair
Cable Lay Up	4 pairs to the core
Fire Protection Wrapping	Glass tape
Screen	Aluminum Tape + Tinned Copper Braid + Drain Wire
Sheath	Halogen free, flame retardant thermoplastic sheathing compound acc. to EN 50290-2-27, Ø OD - 10.5 mm
Color	Red RAL 3000

**Note**<sup>1</sup>- Silicone rubber insulation especially for circuit integrity cables

### **Compliance:**

- Approved by LU (London Underground) – Independently tested by BRE Global
- Fire resistant BS5839-1 (clause 26.2e); BS8434-2; BSEN 50200
- Flame retardant BS4066 part 3; Smoke emission BSEN 20568
- LUL-Flammability, smoke and fume 2-01001-002
- LU STANDARD e4156 part 1 – Approval ref TLL-ENG-MATTS-0076 (dated 21/06/2007)
- Generally to ISO/IEC 11801: 95, EN 50173:95; EN 50288-1<sup>1,2,3,4,5</sup>)
- Generally categorized between Cat 3 and Cat 5 (see notes)
- Passes – ISO/IEC 11801 class D (95); TIA Cat 5 Ch (TSB67); ISO/IEC 11801 Class C

### **Mechanical Properties:**

Bending Radius	Without load: ≥ 32.5 mm With load: ≥ 65 mm
Temperature Range	During operation: -20°C to + 60°C During installation: 0°C to + 50°C

**Electrical Properties: at 20°C± 5°C**

Loop Resistance		≤ 110 Ω /km
Resistance Unbalance		≤ 2%
Insulation Resistance	(500 V) 1 minute	≥ 2000 M Ω *km
Mutual Capacitance	At 800 Hz	Nom. nF/km
Capacitance Unbalance	(Pair/Ground)	≥ 1600 pF/km
Characteristic Impedance	(At 10) MHz	(100 ± 15) Ω
Nominal Velocity of Propagation		ca. 57%
Test Voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer Impedance	At 10 MHz	5 m Ω /m

**Electrical Data (Nominal): acc. to Cat.5 (at 20°C)**
**Fire/Flame Resistance:**

Low Smoke:	BSEN 20568, IEC 61034-2, BSEN 20568
Halogen Free:	IEC 60754-1&2
Flame Retardant:	IEC 60332-1, IEC 60332-3-24, BS4066 part 3, UL 1581 VW 1
Circuit Integrity:	BS5839-1 2002 (clause 26.2e); BS8434-2; BSEN 50200, IEC60331

BS5839 enhanced 3 in 1 test      PASSED  
 Continued data operation @      > 2 hours  
 950°C                                      PASSED  
 BS6387 CWZ                              >3 hours

**Conduit Fill:**

Raceway/ Conduit Size	Max # of 22 AWG LU 4-Pair
1/2"	1
3/4"	1
1"	2
1-1/4"	2
1-1/2"	3
2"	4

**Note<sup>2</sup>** - Structured cabling Characteristic Impedance is normally within (100 ± 5) Ω, due to the insulation system this is not achievable all the time

**Note<sup>3</sup>** - Structured cabling systems minimum for c=65%, due to the insulation (PE + Sil Rbr) system this is not achieved, that is nvp 0,57

**Note<sup>4</sup>** - Cat 5 (95) specification: not the Cat5e of today i.e. gigabit ethernet

**Note<sup>5</sup>** - When used in a 100m Channel, 90m + 10m patch cords, the Class D (95) is fit for some purposes: it is advisable to approve a 100m sample and perform a trial on the system before installation