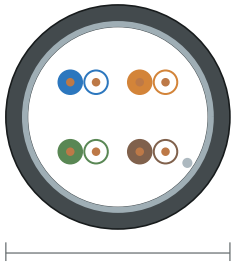
Cat5e F/UTP

4 pairs / 24 AWG / LSZH / 100 MHz

UPCOM series illustration. Jacket colour and conductor size follow the specification below.



Ø 5.3 mm approx.
SCHEMATIC / NOT TO SCALE

5.30 mm	40 kg/km	17.5 kg/km
APPROX. OUTER DIAMETER	APPROX. CABLE WEIGHT	COPPER WEIGHT

A foil screen surrounds four unshielded twisted pairs in this 100 MHz fixed installation cable. The screen and drain wire provide a connection path for a screened structured cabling system.

CONSTRUCTION

Conductor	Solid annealed copper, 24 AWG
Insulation	Solid polyethylene (PE); EN 50290-2-23
Core assembly	4 twisted pairs
Pair identification	Colour coded to ANSI/TIA-568
Core wrapping	Polyester tape
Individual pair screen	None
Overall screen	Aluminium/polyester foil
Drain wire	Tinned copper
Outer jacket	Low smoke zero halogen (LSZH); EN 50290-2-27
Jacket colour	RAL 7035 Grey; other colours on request

APPLICATION

10BASE-T, 100BASE-TX and 1000BASE-T. IEEE 802.3af / 802.3at (Types 1 and 2).

Link length, connecting hardware and PoE bundle temperature must be checked for the complete installation.

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ELECTRICAL CHARACTERISTICS / 20°C

Conductor resistance at 20°C	**< 95 Ω/km**
Resistance unbalance	**< 1%**
Insulation resistance, 500 V DC / 1 min	**> 5000 MΩ·km**
Mutual capacitance	**50 pF/m**
Capacitance unbalance	**1600 pF/km**
Characteristic impedance at 100 MHz	**100 ± 5 Ω**
Velocity of propagation	**67%**

Delay skew	**< 45 ns/100 m**
Operating voltage	**72 V**
Dielectric test, 1 min	**1000 V**
Transverse conversion loss (TCL)	**Minimum level 2**
Coupling attenuation	**Type II**
Transfer impedance	**Grade 2**
Segregation class	**c**

SELECTED TRANSMISSION CHARACTERISTICS

Frequency MHz	Insertion loss dB / 100 m	NEXT dB	PS NEXT dB	Return loss dB
4	3.8	75	72	23
10	6	75	72	23
16	7.8	65	62	23
31.25	10.5	55	52	22
62.5	15.5	45	42	21
100	19	40	37	21

Cable reference values over the stated operating band. Channel performance depends on the installed link.

INSTALLATION AND JACKET

Operating temperature	-20°C to +60°C
Minimum bend radius	8 × D / approx. 42.4 mm
D	Actual cable outer diameter

LSZH-jacketed version for projects specifying low smoke and halogen-free materials. A jacket designation alone does not establish a CPR Euroclass.

Flame propagation: IEC/EN 60332-1-2. Smoke: IEC/EN 61034-2. Halogen acid gas and corrosivity: IEC/EN 60754-1 and IEC/EN 60754-2.

Reference specifications: IEC 61156-5, ISO/IEC 11801, EN 50173-1, EN 50288-2-1, ANSI/TIA-568.2-D.

CPR classification and the corresponding Declaration of Performance must be confirmed for the ordered construction.