



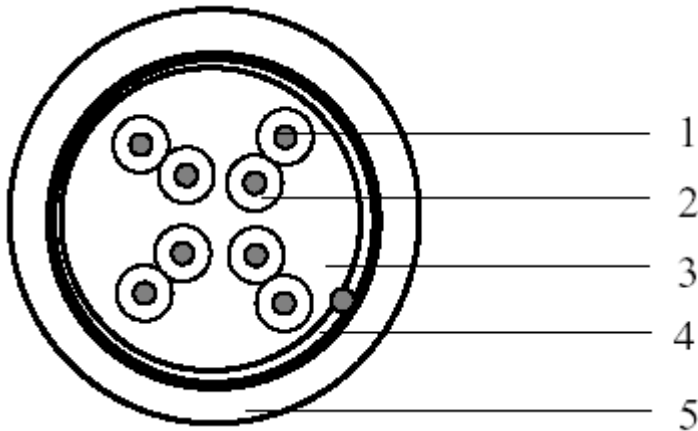
## Applications

- Work area cable.
- Support current and future Category 5e applications, such as :  
1,000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM.

## General standards

- International standard : ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
- European standard : EN 50173-1 (2002) and EN 50173-1 Amendment 1 (2009)
- U.S. Standards : ANSI/TIA/EIA 568-B.2-1 (2002)

## Construction and Dimensions



### 1. Conductor

Material : Stranded bare copper ETP.  
Diameter : AWG 26 (7 × AWG 34).

### 2. Insulation

Material : Polyethylene.  
Nominal diameter over insulation : 0.95 mm.

### 3. Cable core

Pair : 2 twisted insulated conductors.  
Number of pairs : 4, all twisted together.  
Colour code pair 1 : White / Blue and Blue.  
Colour code pair 2 : White / Orange and Orange.  
Colour code pair 3 : White / Green and Green.  
Colour code pair 4 : White / Brown and Brown.  
Foil : Overlapping polyester foil over cable core.

## 4. Foil shielding

Material : Laminated Aluminium / Polyester.  
 Position aluminium : Facing outside, in contact with drain wire.  
 Drain wire material : Stranded tinned copper.  
 Drain wire diameter : AWG 26 (7 x AWG 34).

## 5. Jacket

Material : PVC.  
 Diameter : 5.2 ±0.2 mm.  
 Colour : Grey (RAL 7032).

## Electrical characteristics

Low frequency and D.C. (at 20°C)	Specification	Unit
D.C. resistance conductor	< 14.5	Ω/100m
Resistance unbalance: within a pair / between pairs	< 2/< 4	%
Insulation resistance	≥ 5,000	MΩ.km
Dielectric strength conductor-conductor and conductor-screen (2 seconds)	2.5	kV DC
Mutual capacitance	< 56	nF/km
Capacitance unbalance pair to ground	< 1,600	pF/km
Nominal velocity of propagation (for information only)	> 0.6	c
Delay skew (differential delay)	≤ 40	ns/100m
Transfer impedance according IEC 61156-5	Grade 2	
Coupling attenuation according IEC 61156-5	Type II	

## High frequency (at 20°)

Type	1*	4	10	16	20	31.25	62.5	100	MHz
Attenuation	3.2	6	9.5	12.1	13.5	17.1	24.8	32	dB/100m
Next	65.3	56.3	50.3	47.2	45.8	42.9	38.4	35.3	
PS Next	62.3	53.3	47.3	44.2	42.8	39.9	35.4	32.3	
ACR	62.1	50.3	40.8	35.2	32.2	25.8	13.6	3.3	
PS ACR	59.1	47.3	37.8	32.2	29.2	22.8	10.6	0.3	
ACR-F	64	52	44	39.9	38	34.1	28.1	24	
PS ACR-F	61	49	41	36.9	35	31.5	25.1	21	
Return loss	20	23	25	25	25	23.3	20.7	19	
TCI level 1	40	34	30	28	27	25.1	22	20	
EL TCTL	35	23	15	10.9	9	5.5			
Impedance upper limit	122.2	115.2	111.9	111.9	111.9	114.6	120.2	125.3	Ω
Impedance lower limit	81.8	86.8	89.4	89.4	89.4	87.2	83.2	79.8	
Propagation delay	570	552	545	543	540	539	538	537	ns/100m

**Note** : Limits below 4MHz are for information only.

## Mechanical characteristics

Low frequency and D.C. (at 20°C)	Specification	Unit
Elongation at break of the conductors	8	%
Minimum elongation at break of the insulation	≥ 100	
Minimum elongation at break of the sheath	≥ 100	
Tensile strength of sheath	< 9	MPa

## Environmental and overall characteristics

Low frequency and D.C. (at 20°C)	Specification	Unit
Maximum operating voltage (for all temperatures cable is intended to be used)	72	V dc
Maximum continuous current per conductor (at 25°C)	1.5	A
Temperature rating installation	0/50	°C
Temperature rating operation	-30/60	
Total cable weight	31	kg/km
Minimum bending radius (during operation and installation)	21/42	mm
Maximum pulling strength	45	N
Burning load	395	kJ/m
Fire performance according IEC 60332-1	Pass	

## Part Number Table

Description	Part Number
Cable, CAT5 FTP, 100M	YE01962+00B100

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