

Dr. Mansveltkade 48 2242XM Wassenaar Netherlands office@tedelectric.eu 0031 6 1988 6240

**24AWG** 

Foil Shielding

Messenger

Full Copper Twisted Pair

Inner Film

**Pull Cord** 

## FTP cat.5e Copper with Messenger

Category 5e (cat.5e) cable, also known as Enhanced Category 5,

is designed to support full-duplex Fast Ethernet operation and Gigabit Ethernet.

The performance requirements have been raised slightly in the new standard.

Cat.5e has stricter specifications for

Power Sum Equal-Level Far-End Crosstalk (PS-ELFEXT), Near-End Crosstalk (NEXT),

Attenuation, and Return Loss (RL) than those for cat.5.

Like cat.5, cat.5e is a 100 MHz standard, but it has the capacity to handle bandwidth superior to that of cat.5.

Cat.5 cable is typically used for Ethernet networks running at 100 Mbps.

Construction										
Conductor		4 x 2 x 0.5 mm Full Copper 24 AWG								
Messenger		1.3mm Solid Steel With PVC, Nominal Diameter 2.5mm								
Insulation		0.8 mm High-density Polyethylene								
Diameter Over Insulation / Nominal Outer Diame	ter	0.88 mm / 5.6 mm								
Mechanical Characteristics										
Sheath Tensile Strength					25 MPa					
Minimum Bending Radius					50 mm					
Normal Weight		49 kg/km								
Operating Temperature				-20°C +70°C						
Instalation Temperature				-5°C +40°C						
Product Length			305m in	Carton Box or 500m Stranded						
Electrical Performance										
Conductor Resistance					98 Ohms/km					
Transmission Frequency (MHz)	4	8	10	16	20	25	31.25	62.5	100	
Attenuation (dB/100m)	4.1	5.8	6.5	8.2	9.3	10.4	11.7	17	22	
Near End Crosstalk NEXT (dB/100m)	56.3	51.8	50.3	47.2	45.8	44.3	42.9	38.4	35.3	
Powersum Near End Crosstalk PS NEXT (dB/100	m) 53.3	48.8	47.3	44.2	42.8	41.3	39.9	35.4	32.3	
Return Loss (dB/100m)	33	33	33	32	33	34	28	29	24	
Equal Level Far End Crosstalk ELFEXT (dB/100m)	51.8	45.7	43.8	39.7	37.8	35.8	33.8	27.9	23.8	
Powersum Equal Level Far End Crosstalk (dB/10	0m) 48.8	42.7	40.8	36.7	34.8	32.8	30.9	24.9	20.8	
Characteristic Impedance (Ohms)				100+/-15						
Screw (ns/100m)					45					
Nominal Velocity of Propagation (%) 69										
Propagation Delay, max. 100 MHz (ns/100m)					550					
Coupling Attenuation at 30 MHz 70										