

# U/UTP Cat.5e 4PR 24AWG + Steel Messenger Wire PE, Conductor Material: Copper, Outersheath Color: Black 9011



## Description

LAN Copper Cables, also known as Ethernet cables or twisted pair cables, are a fundamental component of local area networks (LANs). They provide the physical medium for transmitting data signals between devices within a network infrastructure and they can be:

- Unshielded Twisted Pair (UTP): UTP cables are the most common type of LAN cables. They consist of pairs of insulated copper wires twisted together, providing reliable data transmission for short to medium distances.
- Shielded Twisted Pair (STP): STP cables feature an additional metallic shield around the twisted pairs, providing better protection against electromagnetic interference (EMI) and crosstalk. They are ideal for environments with high levels of interference.
- Foiled Twisted Pair (FTP): FTP cables have an overall foil shield that encases all twisted pairs, offering effective EMI protection.

LAN Copper Cables are categorized based on their performance specifications, as defined by the Electronic Industries Association/Telecommunications Industry Association (EIA/TIA):

- Category 5e (Cat5e): Suitable for speeds up to 1 Gbps (Gigabit per second) over distances of up to 100 meters.
- Category 6 (Cat6): Capable of supporting speeds up to 10 Gbps over distances of up to 55 meters.
- Category 6a (Cat6a): Designed for higher-speed applications, supporting speeds up to 10 Gbps over distances of up to 100 meters.
- Category 7 (Cat7): Designed for future-proofing, supporting speeds up to 10 Gbps over distances of up to 100 meters, with improved shielding and reduced crosstalk.

## Standards

EN 50288-3-1	IEC/EN 61034-2
EN 50173	IEC 60332-1
ISO/IEC 11801	IEC 61156-6
IEC/EN 60754-1/2	EIA/TIA 568A

## Construction

**Conductor core:** 24 AWG copper soft wire  
**Insulation:** HDPE polyethylene, colored marking of insulation  
**Outersheath:** PVC

The above design is only a sample of the options available, for reference purposes only. Our policy of continuous improvement may result in a change of specifications without notice. If any discrepancies might be between the data sheet values and standards, we reserve the rights to make technical changes. Our company will not be held responsible, as all or any of pictures, drawings, weights and dimensions details or other elements in this document are only indicative and must not be considered contractual. Contact our sales team for other specifications or custom made products.

Technical Characteristics

Number of Conductors	8
Cable Overall Diameter	9.6 x 5.5 (7x0.5) mm
Cable Weight	47 kg/km
Conductor Material	Copper
Conductor Cross-Section	0.25 mm <sup>2</sup> + Steel Messenger Wire
Conductor Class	CL-1
Conductor Type	RE
Insulation Material	HDPE
Outersheath Material	PE
Outersheath Color	Black 9011
Max. Permissible Installation Temperature	-20 >< +50 °C
Operating Temperature	-40 >< +60 °C
Rate Tensile Strength (RTS)	1200 N
Crush	1000 N/10cm
Conductor Resistance	Max. 95 Ω/km
Resistance unbalance	Max. 2 %
Insulation Resistance	≥ 5000 MΩ/km
Nominal Velocity of Propagation	≥ 66 %
Signal Propagation Delay	Max. 537 ns/100m
Test Voltage	1000 V
Minimum Bending Radius (Installing)	8xD
Minimum Bending Radius (Operating)	4xD
Packing	Wooden Drum, Plywood Drum, Coil, Rolls, Box
Delivery Lengths	To be confirmed by offer
Delivery Length Tolerance	±5 %

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