

DATASHEET

## Industrial CAT5 Ethernet Cable

Kevlar-Reinforced Cable Protects Ethernet Connections



### PRODUCT HIGHLIGHTS

- Kevlar-reinforced cable
- Category 5E for up to 1000BaseT connections
- High flexibility for easy routing and repeated bending

### APPLICATIONS

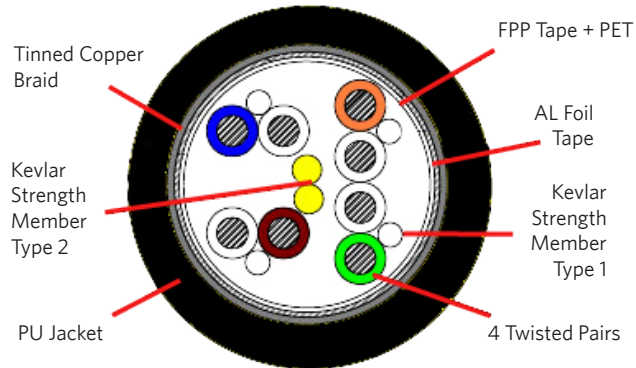
- Industrial automation and control
- Transportation and railway
- Maritime, marine and offshore
- Military and aerospace
- Process, machine and motion control

### PLEASE CONTACT



- Wire & Cable Management Office
- +1 937 431 5430
- wire@aepetsche.com
- www.aepetsche.com

Provided by master distributor A.E. Petsche, Sixnet's kevlar-reinforced super cable will protect your Ethernet connections indoors and out. Its high reliability and superior ruggedness make it the perfect choice for industrial and military applications. Designed to resist UV rays, water and microbial penetration, our cable is super strong yet highly flexible.



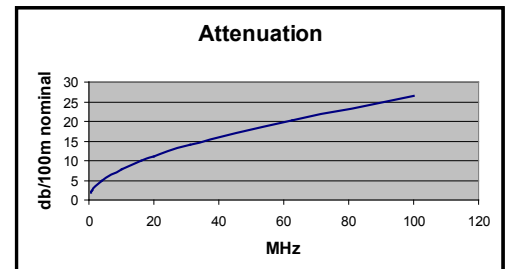
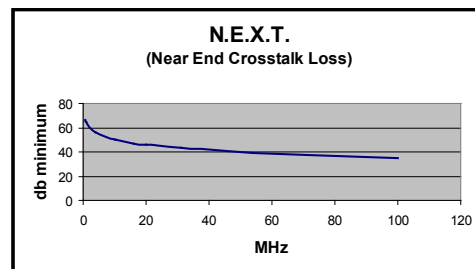
### FEATURES & BENEFITS

#### Rugged for the Harshest Applications

- **Protect Ethernet connections**
- **Provide superior jacket protection**
  - Kevlar-reinforced
  - Category 5E for up to 1000BaseT
  - Resists UV, hydrolysis and microbial

#### Super Strong Highly Flexible Design

- **Flexes to failure**
- **Offers superior pulling strength**
  - IEC 61156-1 standards
  - Bend radius 110 mm
  - Dielectric strength: 700 VAC/1 minute



# Industrial CAT5E Ethernet Cable

Kevlar-Reinforced Cable Protects Ethernet Connections

## SPECIFICATIONS

### Cable Mechanical

- Conductors: 4 pair, stranded (19 x 0.13 mm)
- Conductor size: 24 AWG (0.25 mm<sup>2</sup>)
- Conductor material: tinned copper
- Insulation: color coded per TIA/EIA-568 (Blue+white, orange+white, green+white, brown+white)
- Insulation size: OD 0.04" (1 mm) nominal
- Insulation material: cellular polyethylene (PE)
- Construction: pairs cabled with Kevlar-strength strands and separation tape wrapped
- Inner shield: polyester-aluminum, 100% coverage
- Outer shield: tin copper braid, 80% coverage
- Jacket material: special black polyurethane (FR-PU)
- Jacket rating: low-smoke, HFFR (halogen-free, flame-retardant), UL94V-0
- Jacket protection: resists UV, hydrolysis and microbial
- Jacket chemical resistance: highly resistant to many chemicals and substances (organic and inorganic)
- Weight: 0.04 lbs/ft (61 Kg/Km)
- Outer diameter (OD): 0.28" (7.1 mm) nominal
- Min. bend radius - install: 2.7" (67 mm) ( 9.5 x OD)
- Min. bend radius - operation: 1.4" (35 mm) (5.1 x OD)
- Flexes to failure: meets IEC 61156-1
- Operating temperature: -50°C to +85°C (-10° to 70°C during installation)
- Safety compliance: UL444/CSA C22.2-214, CE
- Flame test compliance: UL 1581 VW-1, IEC 60332.1

### Cable Electrical

- Compliance: category 5E per TIA/EIA-568-B, ISO/IEC 11801, IEC 61156-6
- EMI/RFI protection: IEC 61156-5/6 Type II and level 2 of TCL (50 dB)
- Attenuation and N.E.X.T.: see charts pg 1
- DC resistance: 96 Ohms/Km @ 20°C
- Impedance: 100 +/- 15 Ohms (1-100 MHz)
- Capacitance: 46 pF/m nominal @ 1 KHz
- LCL: 43 dB minimum @ 64 KHz
- Voltage rating: 230 Vrms
- Dielectric strength: 700 VAC/1 minute
- Insulation resistance: 5000 MOhm-Km minimum
- Velocity of propagation: 68% -75% nominal
- Propagation delay: 5.4 nS/m maximum @ 100 MHz
- Diff. delay skew: 0.35 nS/m max. @ 1-100 MHz
- Capacitance unbalance: 3.2 pF/m maximum @ 1 KHz
- Resistance unbalance: 2% maximum @ 20°C
- Return loss: 0.19 dB/m min. @ 100 MHz
- Spark test: 3 KV

### RJ45 Plug for Cordsets

- Connector type: RJ45 plug, shielded
- Contact material: phosphor bronze (CuSn)
- Contact plating: gold (Au) 1.3 um (50u")
- Contact under-plating: nickel (Ni)
- Housing material: polycarbonate, UL94V-0
- Durability/Mating cycles: 500 cycles minimum
- Max. current and voltage: 1.5 A and 125 V
- Withstand voltage: 1000 VAC
- Contact resistance: 20 milliohms maximum
- Insulation resistance: 500 megohms
- Hazardous substances: ELV and RoHS compliant

## SELECTION GUIDE: CONTACT A.E. PETSCHÉ AT +1 937 431 5430 TO ORDER

Model	Description
EB-CAT5E-100B	100 meter bulk reel
EB-CAT5E-300B	300 meter bulk reel
EB-CAT5E-#xx	CAT5E cordsets with connectors (example: EB-CAT5E-10CD)

Key:

# = length in meters up to 100

C = 1 mail RJ45 connector

D = D38999/26WA35PN cadmium finish (RoHS versions available - contact A.E. Petsche)

G = Aero 8 pin AE90-365-BN9-9PN cadmium finish (RoHS versions available - A.E. Petsche)

## ABOUT SIXNET

Celebrating 35 years in operation, Sixnet provides innovative machine-to-machine (M2M) connectivity to industrial customers and markets worldwide. Sixnet's flexible solutions enable organizations to cost-effectively increase business productivity. By integrating powerful enterprise-class networking with rugged reliability, Sixnet meets the standards of the most demanding industrial applications in industries such as power & energy, banking & retail, transportation, video & security, utilities, military, mobile data, maritime and more. Based in Ballston Lake, NY, the company has offices across North America, Asia and Europe.

For more information, visit [www.aepetsche.com](http://www.aepetsche.com), email [wire@aepetsche.com](mailto:wire@aepetsche.com) or call +1 937 431 5430



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