# **M**exans

Contact LAN Systems (Nexans Cabling Solutions) Phone: +44 (0)1256 486640 ncs.uk@nexans.com

Essential Cat 5e Cable Essential U/UTP Cat 5e 0.5MM PVC 1000M REEL

Nexans ref.: N100.562

- U/UTP, F/UTP & SF/UTP construction
- Complies to latest Cat 5E standards
- Supports Gigabit Ethernet
- Guaranteed performance to 100MHz
- Single foil offers EMC performance

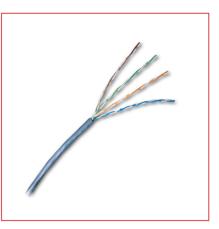
# Description

## Application

Category 5e cables are the standard 100MHz offering from Nexans. Manufactured in accordance with TIA 568-B and IEC 61156-5, they are suitable for basic voice & data installations. Available in Light Grey PVC or Orange LSZH.

## Performance

Nexans Category 5e cables are compliant with the requirements of the TIA 568-B and IEC 61156-5.





## Standards

International ISO/IEC 11801 National TIA/EIA-568-B.2





rad.

20 mm









Min. dynamic operating bending rad. 40.0 mm

Ambient installation T°C range 0 .. 50 °C

Operating temp. range -20 .. 60 °C



Electro magnetic interference resistance No

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| Characteristics                          |             |
|--|-------------|
| Construction characteristics             |             |
| Type of cable                            | U/UTP       |
| Outer sheath                             | PVC         |
| Colour                                   | Grey        |
| Screen                                   | Unshielded  |
| Dimensional characteristics              |             |
| Conductor diameter                       | 0.5 mm      |
| Diameter over insulation                 | 0.9 mm      |
| Nominal outer diameter                   | 4.9 mm      |
| Approximate weight                       | 30 kg/km    |
| Electrical characteristics               |             |
| Characteristic impedance                 | 100 Ohm     |
| Transmission characteristics             |             |
| Velocity of propagation                  | 68.0 %      |
| Propagation delay, max. 100 MHz          | 536 ns/100m |
| Usage characteristics                    |             |
| Category                                 | Cat. 5e     |
| Range                                    | essential   |
| Component function                       | Cable       |
| Minimum dynamic operating bending radius | 40.0 mm     |
| Minimum static operating bending radius  | 20 mm       |
| Ambient installation temperature, range  | 0 50 °C     |
| Operating temperature, range             | -20 60 °C   |
| Fire load                                | 400 MJ/km   |
| Flame retardant                          | IEC 60332-1 |
| Electro magnetic interference resistance | No          |
| Length                                   | 1000 m      |
| Packaging                                | Reel        |
|  |             |

# **Electrical Performance**

all values are specified at 20°C

| Frequency | Attenuation<br>dB/100m | NEXT<br>dB | ACR<br>dB/100m | PS NEXT (*)<br>dB | ELFEXT<br>dB/100m | PSELFEXT<br>dB/100m | RL<br>dB |
|-----------|------------------------|------------|----------------|-------------------|-------------------|---------------------|----------|
| 4         | 4.1                    | 56.3       | 52.2           | 53.3              | 51.7              | 49.0                | 23.0     |
| 10        | 6.5                    | 50.3       | 43.8           | 47.3              | 43.8              | 41.0                | 25.0     |
| 16        | 8.3                    | 47.2       | 38.9           | 44.3              | 39.7              | 36.9                | 25.0     |
| 20        | 9.3                    | 45.8       | 36.5           | 42.8              | 37.7              | 35.0                | 25.0     |
| 31.25     | 11.7                   | 42.9       | 31.2           | 39.9              | 33.9              | 31.1                | 23.6     |
| 62.5      | 17.0                   | 38.4       | 21.4           | 35.4              | 27.9              | 25.1                | 21.5     |
| 100       | 22.0                   | 35.3       | 13.3           | 32.3              | 23.8              | 21.0                | 20.1     |

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(\*) Dual cable versions additionally comply to the additional PSNEXT requirements for multi-unit cables as specified in the relevant TIA and IEC cable standards.

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