

## Essential-5 Cable

Essential U/UTP Cat 5e 0,5MM PVC Box 305M

Nexans ref.: N100.561

- U/UTP, F/UTP and SF/UTP constructions
- Complies with latest Cat 5e standards
- Supports Class D applications up to 100MHz

### Description

#### Application

Essential-5 cables are the standard 100MHz offering from Nexans. Manufactured and tested to the latest Category 5e specifications defined in the International and American cable standards, they are suitable for voice and data installations for applications up to 100 MHz.

#### Design

The Essential-5 cables have AWG 24 solid copper wires and comply with IEC 60228.

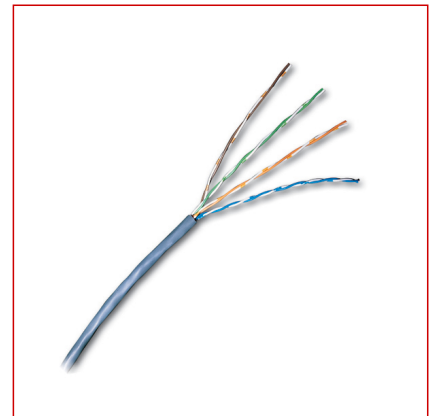
The cables are available with a Light Grey PVC or an Orange LSZH sheath. Both versions have flame retardant properties compliant with IEC 60332-1.

#### Performance

Nexans Essential-5 cables are compliant with the requirements of the International, European and American cable standards, including ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288 and TIA/EIA 568-C.2.

#### Installation

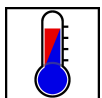
To support the correct set-up of hand held analysers for installation testing, the actual cable NVP value is given in the cable's print legend.




#### Standards

**International** ISO/IEC 11801

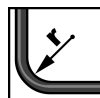
**National** ANSI/TIA-568-C.2; TIA/EIA-568-B.2



Operating temp. range  
-20 .. 60 °C



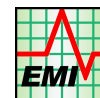
static bending rad.  
20 mm



Min. dynamic operating bending rad.  
40.0 mm



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



Electro magnetic interference resistance  
No



Flame retardant  
IEC 60332-1

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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	
Nominal Velocity of Propagation (NVP)	68.0 %
Propagation delay, max. 100 MHz	536 ns/100m
Usage characteristics	
Category	Cat. 5e
Range	essential
Component function	Cable
Operating temperature, range	-20 .. 60 °C
Minimum static operating bending radius	20 mm
Minimum dynamic operating bending radius	40.0 mm
Length	305 m
Fire load	400 MJ/km
Ambient installation temperature, range	0 .. 50 °C
Electro magnetic interference resistance	No
Flame retardant	IEC 60332-1
Packaging	Box

### Electrical Performance

all values are specified at 20°C

Frequency	Attenuation dB/100m	NEXT dB	ACR dB/100m	PS NEXT (*) dB	ELFEXT dB/100m	PSELFEXT dB/100m	RL 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