

Essential-5 Cable
Essential F/UTP Cat 5e 0,5MM PVC BOX 305M
 Nexans ref.: N100.461

- F/UTP single foil construction
- Complies to latest Cat 5E standards
- Supports Gigabit Ethernet
- Guaranteed performance 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



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



Operating temp. range
 -20 .. 60 °C



Flame retardant
 IEC 60332-1



Electro magnetic interference
 resistance
 Yes

Essential-5 Cable
Essential F/UTP Cat 5e 0,5MM PVC BOX 305M
 Nexans ref.: N100.461

Characteristics

Construction characteristics	
Type of cable	F/UTP
Outer sheath	PVC
Colour	Grey
Screen	Aluminium foil
Dimensional characteristics	
Conductor diameter	0.5 mm
Diameter over insulation	1.06 mm
Nominal outer diameter	5.9 mm
Approximate weight	42 kg/km
Electrical characteristics	
Characteristic impedance	100 Ohm
Transmission characteristics	
Nominal Velocity of Propagation (NVP)	73 %
Propagation delay, max. 100 MHz	536 ns/100m
Mechanical characteristics	
Maximum pulling force by laying	0.1 kN
Usage characteristics	
Category	Cat. 5e
Range	essential
Component function	Cable
Ambient installation temperature, range	0 .. 50 °C
Operating temperature, range	-20 .. 60 °C
Fire load	550 MJ/km
Flame retardant	IEC 60332-1
Electro magnetic interference resistance	Yes
Length	305 m
Packaging	Box
Minimum Bend Radius - Installed	24 mm
Minimum Bend Radius - During Installation (under Tension)	48 mm

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

Essential-5 Cable
Essential F/UTP Cat 5e 0,5MM PVC BOX 305M

100	22.0	35.3	13.3	32.3	23.8	21.0	20.1
-----	------	------	------	------	------	------	------