

# Essential-6 Keystone Connector

## Essential-6 Keystone Connector Unscreened

**Nexans Ref.:** N420.116

- Complies to the latest Category 6 standards
- Unscreened
- Easy termination without punchdown tool
- Supports POE Plus applications (Type 1 and Type 2)
- Keystone format

## DESCRIPTION

### Application

The Nexans Essential-6 keystone connectors are manufactured and tested to the latest Category 6 specifications. They support Class E applications up to 250 MHz. When installed in conjunction with Essential-6 cable and patch panels, a 25 year Class E Link Warranty can be obtained from the Nexans web site.

### Design

The Essential-6 keystone connectors are designed to match with Essential-6 cable and patch cords and complement all Essential modular components, such as:

- keystone patch panels (black and white)
- keystone outlet modules (UK, US and European formats)

The modular jack is designed for keystone footprints of 14.78mm width, 20-20.78mm height and 1.5mm wall thickness and is compatible with a variety of keystone formatted structural hardware. (Please check compatibility with Nexans before using 3rd party hardware)

The Essential-6 connectors can be used with all types of Category 6 cable with solid wire from 24 to 22 AWG.

### Performance

The Essential-6 keystone connectors are compliant with the specifications of ISO/IEC 11801, EN 50173 and IEC 60603-7.

### Installation



**essential-6**

## STANDARDS

### International

IEEE 802.3af (PoE);  
IEEE 802.3at (PoE+); ISO/  
IEC 11801



Ambient installation T°C range  
-10 ... 60 °C



Operating temp.  
-20 ... 60 °C



Storage temperature, range  
-20 ... 60 °C

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

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The wire organiser guarantees fast and easy termination of the Essential-6 keystone connector without the need for a punchdown tool. An optional comfort tool (N420.567) can be used to increase the ease of installation.

- Fast and easy termination without punchdown tool.
- Wiring according to colour code T568B or T568A.
- Accepts 24, 23 and 22 AWG solid core cables.
- Fits Nexans hardware designed for keystone format



Ambient installation T°C range  
-10 ... 60 °C



Operating temp.  
-20 ... 60 °C



Storage temperature, range  
-20 ... 60 °C

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## CHARACTERISTICS

### Construction characteristics

Connector type	RJ45 and Tool-less IDC
Screen	No

### Dimensional characteristics

Depth	29 mm
Height	24 mm
Width	16.7 mm

### Usage characteristics

Ambient installation temperature, range	-10 ... 60 °C
Operating temperature, range	-20 ... 60 °C
Storage temperature, range	-20 ... 60 °C
Range	essential-6

Frequency MHz	Insertion Loss dB/100m	NEXT PP dB	PS NEXT dB	ACR dB/100m	PS ACR dB/100m	ELFEXT dB/100m	PSELFEXT dB/100m	Return Loss dB
1	4,0	65,0	62,0	65,0	62,0	63,3	60,3	19,0
4	4,2	63,0	60,5	58,9	56,4	51,2	48,2	19,0
10	6,6	56,6	54,0	50,0	47,4	43,3	40,3	19,0
16	8,3	53,2	50,6	44,9	42,3	39,2	36,2	18,0
20	9,3	51,6	49,0	42,3	39,7	37,2	34,2	17,5
31,25	11,7	48,4	45,7	36,7	34,0	33,4	30,4	16,5
62,5	16,9	43,4	40,6	26,5	23,7	27,3	24,3	14,0
100	21,7	39,9	37,1	18,2	15,4	23,3	20,3	12,0
155	27,6	36,7	33,8	9,1	6,2	19,5	16,5	10,1
200	31,7	34,8	31,9	3,1	0,1	17,2	14,2	9,0
250	35,9	33,1	30,2	-2,8	-5,8	15,3	12,3	8,0

Contact resistance:	max. 20 m Ohm
Input to output DC resistance:	max. 200 m Ohm
Insulation resistance:	min. 500 M Ohm
Voltage proof:	1000 V DC or AC peak, contact to contact
Mating cycles:	min. 750
Insertion cycles:	min. 20
Insertion and withdrawal force:	max. 20 N