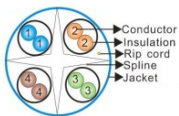


## INFRALAN® Installation Cable U/UTP Cat.6A 500MHz



INFRALAN®



### Description

The INFRALAN® U/UTP Cat.6A installation cable is designed for transmissions up to 500MHz and complies with Cat.6A. With this cable, transmission rates of up to 10Gbit Ethernet are possible. Due to the small outer diameter of only 6.6 mm, the cable is also suitable for feed-throughs in narrow cable ducts. Thanks to the B2ca standard according to the Construction Products Regulation and its cable structure of 4x2xAWG23/1, the cable can be used in all areas of installation in buildings.

Areas of application:

Primary (Campus)

Secondary (Riser)

Tertiary (Horizontal)

### General data

|                     |      |
|---------------------|------|
| Cable silicone free | True |
| UV resistant        | No   |

### Mechanical characteristics

|                          |       |
|--------------------------|-------|
| Bending radius (dynamic) | 65 mm |
| Bending radius (static)  | 65 mm |

### Cable construction

|                 |       |
|-----------------|-------|
| Cable structure | U/UTP |
|-----------------|-------|

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### Cable construction

|                                 |                      |
|---------------------------------|----------------------|
| Category                        | 6A (TIA)             |
| Conductor category              | Kl.1 = single wire   |
| Conductor material              | Cu, blank            |
| AWG-size/quantity of cores      | 23/1                 |
| Diameter conductor              | 0.57 mm              |
| Nominal cross section conductor | 0.26 mm <sup>2</sup> |
| Screen over stranding           | without              |
| Stranding element               | pairs                |
| Screen over stranding element   | without              |
| Core insulation                 | cellular PE          |
| Core identification             | colour               |

### Cable sheath

|                       |                                      |
|-----------------------|--------------------------------------|
| Material outer sheath | LSZH                                 |
| Euro class            | B2ca                                 |
| Flame retardant       | acc. EN 60332-1-2;acc. EN 60332-3-24 |
| Halogen free          | acc. EN 60754-1/2                    |
| Low smoke             | acc. EN 61034-2                      |

### Environmental conditions

|                                 |             |
|---------------------------------|-------------|
| Operating temperature, flexible | 0 – 60 °C   |
| Operating temperature, fix      | -15 – 75 °C |
| Operating temperature, storage  | -15 – 75 °C |

### Electrical characteristics

|                                 |   |
|---------------------------------|---|
| PoE                             | acc. to IEEE 802.3at;acc. to IEEE 802.3af;yes;PoE+;UPoE |
| NVP value                       | 68.2 %  |
| Loop resistance                 | 164 Ohm/km  |
| Resistance unbalance            | ≤ 5 %   |
| Insulation resistance (500V)    | ≥ 5000 MOhm/km  |
| Test voltage DC, 1 min          | 500 V   |
| Capacity to earth               | 330 pF/km   |
| Separation class acc. EN50174-2 | C   |
| Coupling attenuation            | ≥ 50 dB   |
| Max. Frequency                  | 500 MHz   |

### Standards, approvals, certifications

|                   |                          |
|-------------------|--------------------------|
| Cabling standards | EN 50173-1;ISO/IEC 11801 |
|-------------------|--------------------------|

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## INFRALAN® Installation Cable U/UTP Cat.6A 500MHz

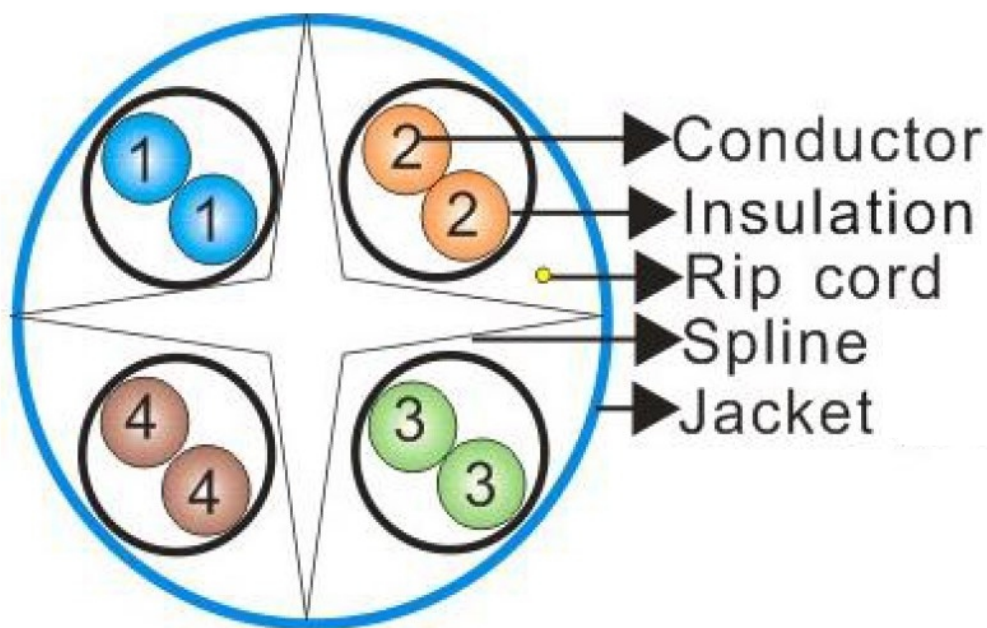
### Standards, approvals, certifications

|                        |                                     |
|------------------------|-------------------------------------|
| Installation standard  | EN 50174                            |
| Harmonised Standard    | EN 50575                            |
| Directive/Regulation   | RoHS 2011/65/UE; REACH 1907/2006/EC |
| Transmission standards | IEEE 802.3 10Mbit to 10Gbit         |

### Available variants

| Article no.   | Title   | Length outer sheath | Colour RAL colour | Number of cores | Type | Outer diameter approx.   S0006ETIM/beides/005Dimensions data | Weight   S0012Katalog/beides/001General | Max. tractive force   S0014Katalog/beides/003Mechanical characteristics/Cable construction | Fire approvals, certifications   S0020Katalog/beides/009Standards, approvals, certifications |             |
|---------------|---|---------------------|-------------------|-----------------|------|--|---|--|--|-------------|
| 99965.305-CPR | INFRALAN® Cat.6A 500 AWG23, U/UTP 4P CPR B2ca, RAL5015 blue, 305m | 305 m               | blue              | RAL5015         | 8    | simplex  | 6.6 mm                                  | 50 kg/km   | 110 N  | 0.7812 MJ/m |
| 99965.500-CPR | INFRALAN® Cat.6A 500 AWG23, U/UTP 4P CPR B2ca, RAL5015 blue, 305m | 500 m               | blue              | RAL5015         | 8    | simplex  | 6.6 mm                                  | 50 kg/km   | 110 N  | 0.7812 MJ/m |

### Technical drawings



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# DATASHEET

## INFRALAN® Installation Cable U/UTP Cat.6A 500MHz

### Technical drawings

### Electrical Characteristics

| MHz   | ATT     | NEXT | RL   | PS- NEXT | ELFEXT | PSELFEXT |
|-------|---------|------|------|----------|--------|----------|
|       | dB/100m | dB   | dB   | dB       | dB     | dB       |
|       | Max.    | Min. | Min. | Min.     | Min.   | Min.     |
| 1     | 2.1     | 74.3 | 20.0 | 72.3     | 67.8   | 64.8     |
| 4     | 3.8     | 65.3 | 23.0 | 63.3     | 55.8   | 52.8     |
| 8     | 5.3     | 60.8 | 24.5 | 58.8     | 49.7   | 46.7     |
| 10    | 5.9     | 59.3 | 25.0 | 57.3     | 47.8   | 44.8     |
| 16    | 7.5     | 56.2 | 25.0 | 54.2     | 43.7   | 40.7     |
| 20    | 8.4     | 54.8 | 25.0 | 52.8     | 41.8   | 38.8     |
| 25    | 9.4     | 53.3 | 24.3 | 51.3     | 39.8   | 36.8     |
| 31.25 | 10.5    | 51.9 | 23.6 | 49.9     | 37.9   | 34.9     |
| 62.5  | 15.0    | 47.4 | 21.5 | 45.4     | 31.9   | 28.9     |
| 100   | 19.1    | 44.3 | 20.1 | 42.3     | 27.8   | 24.8     |
| 200   | 27.6    | 39.8 | 18.0 | 37.8     | 21.8   | 18.8     |
| 250   | 31.1    | 38.3 | 17.3 | 36.3     | 19.8   | 16.8     |
| 300   | 34.3    | 37.1 | 16.8 | 35.1     | 18.3   | 15.3     |
| 400   | 40.1    | 35.3 | 15.9 | 33.3     | 15.8   | 12.8     |
| 500   | 45.3    | 33.8 | 15.2 | 31.8     | 13.8   | 10.8     |

### accessory

|           |   |
|-----------|---|
| K8109GR.5 | RJ45 Patch cable U/UTP, Cat.6A, LSZH, Premium, 500MHz, grey |
| 37589.1   | ECOLAN® Distribution Panel 19" 1U 24-Port shifted           |

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