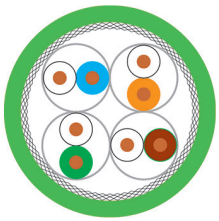
HELUKAT® 500IND CAT.6A S/FTP PUR STATIC



TECHNICAL DATA

Industrial Ethernet cable / Cat. 6A acc. to ISO/IEC 11801, DIN EN 50173, IEC 61156-5, DIN EN 50288-10-1, UL-Std. 444 (CMX), CSA-Std. C22.2 No. 214 - CMX, UL-Std. 758 (AWM) Style 21238

Temperature range	fixed installation -40°C to +80°C during installation 0°C to +50°C UL (CMX) to +75°C UL (AWM) to +80°C
Peak operating voltage	125 V (not for high power current installation purposes)
Test voltage core/core	2000 V
Conductor resistance at 20°C	max. 59.1 Ohm/km
Loop resistance at 20°C	max. 118.2 Ohm/km
Insulation resistance	min. 5.0 GOhm x km
Mutual capacitance core/core	at 800 Hz, approx. 45 pF/m
Rel. Velocity of Propagation	approx. 78%
Characteristic impedance	at 1 to 100 MHz, 100 Ohm ± 15 Ohm at 101 to 500 MHz, 100 Ohm ± 20 Ohm
Caloric load	approx. 1.63 MJ/m
Minimum bending radius	during installation 8x Outer-Ø fixed installation 5x Outer-Ø

CABLE STRUCTURE

- Copper conductor bare, AWG sizes
- Core insulation: Foam PE
- Core identification: colour coded, pairs:
  No. 1: white-blue / blue
  No. 2: white-orange / orange
  No. 3: white-green / green
  No. 4: white-brown / brown
- Cores stranded in pairs with optimal lay lengths
- Screening element: pairs, plastic-coated aluminium foil (St)
- Pairs stranded in layers with optimally matched lay lengths
- Screen: braided screen of tinned copper wires
- Outer sheath: PUR
- Sheath colour: green
- Length marking: in metres

PROPERTIES

- resistant to: oil, UV radiation, hydrolysis, microbes, coolants, greases
- abrasion-resistant, notch-resistant, tear-resistant, cut-resistant, wear-resistant, low adhesion
- halogen-free
- flame-retardant

TESTS

- halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- corrosiveness of combustion gases acc. to DIN VDE 0482-754-2 / DIN EN 60754-2 / IEC 60754-2
- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2

APPLICATION

HELUKAT® 500IND CAT.6A S/FTP PUR STATIC was designed specially for extreme industrial applications for fixed installation. The copper data cable is especially well-suited for Category 6A 10 Gigabit/500MHz (IEC 61156-5) Ethernet applications. It guarantees excellent transmission characteristics and may be used even under the harshest conditions.

NOTES

- Conductor sizes are based on the AWG measurement system, metric conductor sizes (mm²) are approximated and are for reference only
- UL Voltage Rating: 600 V

TYPICAL VALUES

Frequency (MHz)	10	16	62.5	100	250	500
Attenuation (dB/100m)	5.9	7.5	15.0	19.1	31.1	45.3
NEXT (dB)	60.3	57.2	48.4	45.3	39.3	34.8
ACR (dB/100m)	54.4	49.7	33.4	26.2	8.2	10.5

Part no.	No. cores x AWG-No.	Cross-sec. mm², approx.	Conductor Ø mm, approx.	Core Ø mm, approx.	Outer-Ø min - max mm	Cu factor per km	Weight kg/km, approx.
11007778	4 x 2 x AWG 22 /1	0.32	0.64	1.55	8.4 - 9.0	53.0	103.0

12.08.2025 / We reserve the right to make technical changes; the imprint in the image is purely exemplary