

# HELUCHAIN® HELUKAT® 100S CAT.5e 4P SF/UTP TPE



high abrasion resistance, with inner sheath for long travel distances



HELUCHAIN® HELUKAT® INDUSTRIAL ETHERNET TPE CAT5e 4x2x0,18mm<sup>2</sup> UL22541 CE

## TECHNICAL DATA

TPE drag chain cable acc. to UL-Std. 758 (AWM) Style 22541

Temperature range	flexible -35°C to +90°C fixed -50°C to +90°C
Nominal voltage	UL (AWM) AC 1000 V
Peak operating voltage	125 V (not for high power current installation purposes)
Test voltage	3000 V
Conductor resistance at 20°C	max. 94.0 Ohm/km
Insulation resistance	min. 5.0 GOhm x km
Mutual capacitance core/core	at 800 Hz, approx. 50 pF/m
Rel. Velocity of Propagation	approx. 67%
Characteristic impedance	at 100 MHz, 100 Ohm ± 5 Ohm
Minimum bending radius	flexible 7.5x Outer-Ø fixed installation 4x Outer-Ø

## CABLE STRUCTURE

- Copper wire bare
- Core insulation: PP
- 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
- Foil wrapping
- 4 pairs stranded into bundle with optimal lay lengths

- Inner sheath: TPE, undyed
- Screen: plastic-coated aluminium foil (St), braided screen of tinned copper wires, approx. coverage 85%
- Outer sheath: TPE
- Sheath colour: violet (RAL 4001)
- Length marking: in metres

## PROPERTIES

- resistant to: hydrolysis, microbes
- suitable for use in drag chains
- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

## TESTS

- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404
- Cable Flame Test acc. to UL Std. 1581 Sec. 1061

## APPLICATION

The HELUCHAIN® HELUKAT® 100S CAT.5e 4P SF/UTP TPE features an additional inner sheath for applications with long travel distances and the highest requirements for acceleration, abrasion resistance, and minimum bending radii. Has an extended functional temperature range while moving of -35°C to +90°C.

## NOTES

- the conductor is metrically (mm<sup>2</sup>) constructed, AWG numbers are approximated, and are for reference only

## TYPICAL VALUES

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100	155
Attenuation (dB/100m)	1.6	4.0	6.9	9.1	10.2	13.4	19.5	26.2	34.1
NEXT (dB)	96.2	79.9	75.2	74.8	74.1	73.2	72.5	70.6	64.8

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
11027792	4 x 2 x 0.18 / 19	25	8.0	38.0	80.0