



DATA SHEET	2170888
ETHERLINE[®] TORSION CAT.5	Valid from: 26.10.2006

Industrial Ethernet CAT.5



Design

Wire

Stranded tinned copper wire 19 X 0.15 (22 AWG)
Insulation of foamed Polyethylene (PE) with skin

ø 0.76 mm (0.030 in)
ø 1.5 mm (0.059 in)

Core


Filler as central element
4 wires
Sequence of colours: white-yellow-blue-orange (WH-YE-BU-OG)
Plastic tape, overlapped
Aluminium laminated foil, overlapped
Plastic tape, conductive
Shield braiding of tinned copper wires 0.13 mm diameter (36 AWG)
Coverage approx. 85%
Plastic tape, overlapped

ø 4.6 mm (0,181 in)

Jacket

Polyurethane (PUR) green (GN)
Wall thickness approx. 0.95 mm

ø (6.5 ±0.2) mm (0,256 ±0,008 in)

Marking: LAPP KABEL STUTTGART **ETHERLINE[®] TORSION CAT.5**
2 x 2 x AWG22/19 * 22AWG (SHIELDED) E63634  AWM 21161 80°C
OIL RESISTANT * ROHS ART. 2170888

prepared by: PD-KL Hans Euler	Document: DB2170888EN	Page 1 of 2
----------------------------------	-----------------------	-------------



DATA SHEET	2170888
ETHERLINE[®] TORSION CAT.5	Valid from: 26.10.2006

Electrical data at 20°C

Loop resistance	≤	120	Ohm/km
Signal run time	≤	4.7	ns/m
Insulation resistance	≥	500	MΩ*km
Characteristic impedance 1 - 100 MHz		100 (±15)	Ohm
Operating voltage (peak)	≤	100	V
Test voltage (wire/wire/screen rms 50Hz 1min)	=	700	V

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
ELFEXT (dB) ≤	63.8	51.8	43.8	39.7	37.8	33.9	24	20
Attenuation max. (dB/100m) (dB/100ft)	2.9 (0.9)	4.3 (1.3)	7.6 (2.0)	10 (2.7)	11.5 (3.0)	15.5 (4.1)	26.5 (6.8)	41 (10.4)

Other electrical requirements according to EN 50288-2-2

Mechanical and thermal characteristics

Conductor/Screen material acc. to DIN EN 13602 Cu-ETP-A...-B
Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3)
Jacket material acc. F45052-F5100 (similar to DIN VDE 0282)
Flame retardant acc. to IEC 60332-1-2

UL AWM Style 21161 (80°C)

Other characteristics:

Halogen free
RoHS compliant

Torsional strength

- 1 million cycles at ± 180° on 1 meter
- not adapted for garland mounting (festoon)

Permissible temperature range : -40 °C (-40 °F) up to 80 °C (176 °F)

Min. bending radius allowed : single 5 X Ø

Weight approx. : 55 kg/km (37 lb/1000ft)

prepared by: PD-KL Hans Euler	Document: DB2170888EN	Page 2 of 2
----------------------------------	-----------------------	-------------