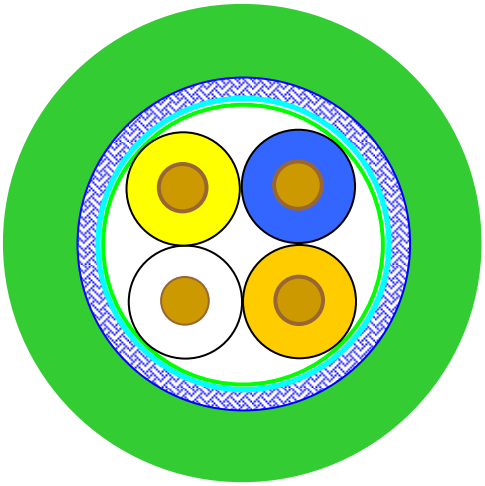
LAPP GROUP	**DATA SHEET**	**2170891**
	ETHERLINE® Y UL/CSA Cat.5e 2x2xAWG22/1	Valid from: **02.02.2009**

Industrial Ethernet CAT.5e



Application:
High speed cable for Industrial Ethernet for fixed installations in dry, wet or damp rooms. Cable meets the transmission characteristics for Category 5e of IEC 61156-5 Ed. 2 and confirms to PROFINET installation guide.

Design

Stranded bare copper wire ø 0,64 (AWG22/1)	ø 0.64 mm (0.025 in)
Insulation of Polyethylene (PE)	ø 1.50 mm (0.059 in) nom. ø 1.60 mm (0.063 in) max.

Core
4 cores stranded to form a star quad
Sequence of colours: pair 1: white (WH)-blue (BU), pair 2: yellow (YE)-orange (OG)
Plastic tape overlapped
Plastic bonded aluminium tape logitudinally applied
Shield braiding of tinned copper wires 0.13 mm diameter (36 AWG)
Coverage approx. 85% ø 4.3 mm (0,169 in)

Jacket
Special compound based on polyvinylchloride (PVC) green (GN)
Wall thickness approx. 1.0 mm ø 6.3 ±0.2 mm (0,248 ±0,008 in)

LAPP KABEL STUTTGART **ETHERLINE® Y UL/CSA CAT.5e** 2 x 2 x AWG22/1 c(UL)us CMX 75 °C 22AWG (SHIELDED) ROHS ART. 2170891

Electrical data at 20°C

Loop resistance	≤ 118,2 Ohm/km
Signal run time	≤ 5,3 ns/m
Insulation resistance	≥ 5 GOhm*km
Capacitance at 800 Hz	nom. 48 pF/m
Velocity of propagation	nom. 66%
Characteristic impedance:	
4 – 100 MHz	100 (±15) Ohm
Operating voltage (peak)	≤ 125V
Test voltage (wire/wire rms 50Hz 1min)	1000V
Test voltage (wire/screen rms 50Hz 1min)	500V

Frequency (MHz)	4	10	16	20	31.25	62.5	100
NEXT (dB) ≥	56,3	50,3	47,2	45,8	42,9	38,4	35,3
Attenuation max. (dB/100m) (dB/100ft)	4,1 (1,25)	6,5 (1,98)	8,3 (2,53)	9,3 (2,83)	11,7 (3,57)	17,0 (5,18)	22,0 (6,71)

Other electrical requirements acc. to IEC 61156-5 Ed. 2

Mechanical and thermal characteristics

Conductor material acc. to DIN EN 13602 Cu-ETP-R460-P
Screen material acc. to DIN EN 13602 Cu-ETP-A013-C
Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table 1, compound type L/MD
Jacket material acc. to CENELEC HD21, compound type TM2
Flame retardant acc. to IEC 60332-1-2, VW-1 acc. to UL1581
Stripping of sheath: min. 5 N to max. 40 N at a length of 50 mm

Other characteristics:

RoHS compliant

Permissible temperature range:	-40 °C (-40 °F) up to +75 °C (167 °F)
During installation:	-5 °C (23 °F) up to +50 °C (122 °F)
Min. bending radius allowed:	repeated 7,5 x Ø, single 3 x Ø
Fire load	664 kJ/m
PVC weight with Phthalate:	21,6 kg/km(14,8 lb/1000 ft)
PVC weight without Phthalate:	0,0 kg/km
Weight approx.:	56 kg/km (38 lb/1000 ft)