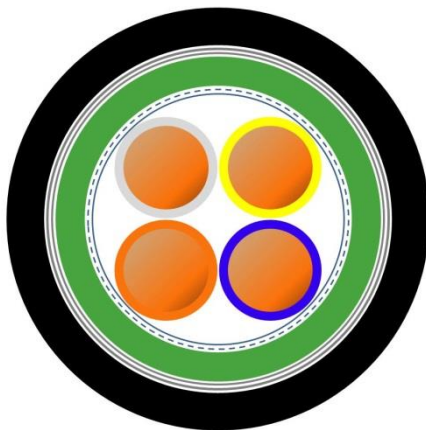


2170496	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® Cat.5 ARM 1 x 4 x AWG22/1	

Application

ETHERLINE® Cat. 5 ARM is a CATEGORY 5 data cable for industrial usage. The screening ensures high transmission reliability in areas with a high load of electromagnetic capacity and the armoring off two layers galvanized steel tape guarantees a safe rodent protection.

Design



Conductor	solid bare copper wire, AWG 22/1 or $\varnothing$ approx. 0,65 mm
Insulation	Polyethylene, nom. Core $\varnothing$ ca. 1.50 mm
Core identification code	white, yellow, blue, orange
Stranding	star quad construction with plastic tape wrapping
Inner sheath	PVC compound, outer $\varnothing$ approx. 4.0 mm
Screen	plastic laminated aluminum foil on top: braid of copper wire, tinned wire, coverage ca. 85 % above: PVC-compound, Colour similar green RAL6018, outer $\varnothing$ approx. 6.5 mm
Braid	2 layers off galvanized steel tape, outer $\varnothing$: ca. 6.9 mm
Outer sheath	PE compound, Colour similar black RAL9005, outer $\varnothing$: ca. 9.3 mm

Electrical properties at 20°C

Loop resistance	max. 124 Ω /km
Insulation resistance	min. 0,5 G Ω xkm
Characteristic impedance	nom. 100 Ω ($\pm 15\%$) (1 MHz up to 100 MHz)
Signal transit time	<530 ns/100 m
Peak operating voltage	125 V
Test voltage	conductor/conductor 2000 V conductor/screen 2000 V

Creator: TOST / PDC	Document: DB2170496EN	Page 1 of 2
Released: ALTE / PDC	Version: 05	

2170496	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® Cat.5 ARM 1 x 4 x AWG22/1	

Electrical transmission properties at 20°C

f [MHz]	Attenuation [dB/100m] standard	NEXT [dB] standard	EL FEXT [dB] standard	Return Loss [dB] standard
1		52	64	64
4	4	44,3	52	52
10	6,4	39,8	44	44
16	8,1	37,6	39,9	39,9
31,25	11,4	34,6	34,1	34,1
62,5	16,5	31,5	28,1	28,1
100	21,4	29,4	24	24

Mechanical and thermal properties

Minimum bending radius	flexing: 15 x cable Ø fixed installation: 10 x cable Ø
Temperature range	flexing: -20° C up to +60° C fixed installation: -40° C up to +70° C
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Creator: TOST / PDC	Document: DB2170496EN	Page 2 of 2
Released: ALTE / PDC	Version: 05	