
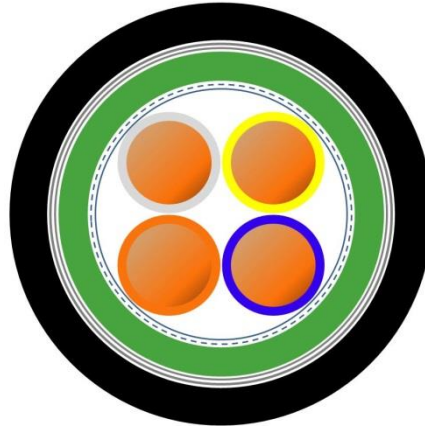


2170496	<b>DATA SHEET</b>	
valid from: 01.01.2019	<b>ETHERLINE® Cat.5 ARM</b> <b>1 x 4 x AWG22/1</b>	

## 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 $\Omega$ /km
Insulation resistance	min. 0,5 G $\Omega$ xkm
Characteristic impedance	nom. 100 $\Omega$ ( $\pm$ 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

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### Electrical transmission properties at 20°C

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

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