



## ETHERLINE® Cat. 5 ARM

DB2170496

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**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	bare copper-wire (AWG 22), 0.65 mm conductor $\varnothing$
Insulation	PE, ca. 1.5 mm outer $\varnothing$
Core identification code	acc. to IEC 708-1; white, yellow, blue, orange
Stranding	star quad
Wrapping	plastic tape
Inner sheath	PVC, ca. 4.0 mm $\varnothing$
Screening	plastic laminated aluminum foil <u>on top:</u> braid of copper wire, tinned wire, coverage ca. 85 %
Inner sheath	PVC, green, sheath thickness ca. 0.95 mm, outer $\varnothing$ : ca. 6.5 mm
Armoring (rodent protection)	2 layers off galvanized steel tape, outer $\varnothing$ : ca. 6.9 mm
Outer sheath	PE, black, sheath thickness ca. 1.2 mm, outer $\varnothing$ : ca. 9.3 mm

**Electrical properties at 20° C**

Resistance (loop)	max. 124 $\Omega$ /km
Insulation resistance	min. 500 M $\Omega$ xkm
Characteristic impedance	100 $\Omega$ $\pm$ 15 $\Omega$ (1MHz up to 100 MHz)
Signal propagation time	<5,3 ns/m
Test voltage (rms 50 Hz, 1 minute)	core/core: 2000 V core/screening: 2000 V

**Transmission properties**

f [MHz]	Attenuation max. [dB/100m]	NEXT [dB/100m]
1	2.1	65.3
4	4.0	56.3
10	6.3	50.3
16	8.0	47.2
20	9.0	45.8
31.25	11.4	42.9
62.5	16.5	38.4
100	21.3	35.3

Electrical requirements acc. to EN 50288-2-1

**Mechanical and thermal properties**

Minimum bending radius	moved: 15 x cable $\varnothing$ fixed installation: 10 x cable $\varnothing$
Permissible temperature range	moved: -20° C up to +60° C fixed installation: -40° C up to +70° C
General requirements	Dangerous and forbidden substances acc. to RoHS directive (2002/95/EG) are not allowed to the manufacturing.