

# INDUSTRIAL ETHERNET CABLES FOR RAILWAY TECHNOLOGY

DIN EN 45545-2

**CATLine** CAT 5e R  
CAT 6A R Halogen-free Industrial Ethernet Cables for Railway Technology  
CAT 7A R



D-VIERSEN · CATLine Cat.5e R 4x2x24AWG 15

Marking for CATLine CAT 5e R 15674421:  
SAB BRÖCKSKES · D-VIERSEN · CATLine Cat.5e R 4x2x24AWG 15674421 CE

Industrial Ethernet is a quickly developing network technology. Ethernet with the worldwide accepted TCP/IP (Transmission Control Protocol/Internet Protocol) will be the future connection to the well established field bus or sensor / actuator level. Depending on the application, we are able to offer today CAT 5, CAT 6 and CAT 7 cable solutions for flexible and continuous flex use, for chemical and thermal stress as well as special cable constructions for reeling purpose and robot operation.

item no.	type	dimension AWG	nominal inch	outer- $\phi$ mm	cable weight $\approx$ lbs/mft
▶ 15679002	CATLine CAT 5e R	24 ( $\approx$ 14/34)/2pr	0.205	5.2 $\pm$ 5%	28
▶ 15679004	CATLine CAT 5e R	22 ( $\approx$ 7/30)/2pr	0.232	5.9 $\pm$ 5%	35
▶ 15674421	CATLine CAT 5e R	24 ( $\approx$ 14/34)/4pr	0.315	8.0 $\pm$ 10%	47
▶ 16674621	CATLine CAT 6A R	26 ( $\approx$ 18/38)/4pr	0.268	6.8 $\pm$ 10%	37
▶ 17674621	CATLine CAT 7A R	26 ( $\approx$ 18/38)/4pr	0.307	7.8 $\pm$ 10%	50

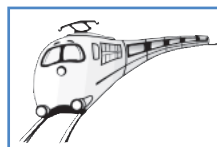
Other dimensions and colors are possible on request.

<b>Construction:</b>	CATLine CAT 5e R <i>flexible</i>	CATLine CAT 6A R <i>flexible</i>	CATLine CAT 7A R <i>flexible</i>
Item number:	15679002 / 15679004 / 15674421	16674621	17674621
Dimension:	2 x 2 x 24 AWG / 2 x 2 x 22 AWG / 4 x 2 x 24 AWG		4 x 2 x 26 AWG
Conductor:	bare copper strands, fine wires		
Insulation:	PE		
Color code:	blue, yellow, white, orange	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown	
Stranding:	star quad	twisted to pairs	twisted to pairs with alu foil
Wrapping:	PETP Tape		
Screen:	alu foil and tinned copper braiding		
Jacket material:	special SABIX®		
Jacket color:	green (similar RAL 6018)		

<b>Technical data:</b>	CATLine CAT 5e R <i>flexible</i>	CATLine CAT 6A R <i>flexible</i>	CATLine CAT 7A R <i>flexible</i>
Peak operating voltage:	max. 90 V		
Testing voltage:	conductor/conductor 1500 V - conductor/screen 1200 V		
Temperature range VDE fixed laying: flexible application:	- 40°C / + 70°C - 30°C / + 70°C		
Min. bending radius fixed laying: flexible application:	5 x O.D. 12 x O.D.		
Characteristic impedance: accomplishes the electrical and transmission requirements with high frequency	100 $\Omega$ $\pm$ 10 $\Omega$ with reference to EN 50288-2-2 / CAT 5	100 $\Omega$ $\pm$ 10 $\Omega$ with reference to EN 50288-10-2 / CAT 6A	100 $\Omega$ $\pm$ 10 $\Omega$ with reference to EN 50288-9-2 / CAT 7A
Zero halogen:	acc. to DIN EN 50306-1 + DIN EN 50264-1. Development of HCl is $\leq$ 0.5% acc. to DIN EN 50267-2-1. pH-value is $\geq$ 4.3 acc. to DIN EN 50267-2-2. Conductivity is $\leq$ 10.0 $\mu$ S/mm acc. to DIN EN 50267-2-2. Fluoric content $\leq$ 0.1% acc. to DIN EN 60684-2		
Burning characteristics:	No flame propagation acc. to DIN EN 60332-3-25 + DIN EN 50305 section 9.1.1 + 9.1.2. Flame retardant and self-extinguishing acc. to DIN EN 60332-1-2		
Smoke density:	acc. to DIN EN 61034		
Toxicity:	acc. to DIN EN 50305		
Flexibility:	good		
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30		

## Outstanding features:

- ▶ halogen-free
- ▶ good EMC characteristics
- ▶ no flame propagation
- ▶ flame retardant and self-extinguishing
- ▶ fulfills fire protection requirements R15 (EL1A) acc. to DIN EN 45545-2 for hazard levels HL1-3



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for use in  
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