



Industrial Cable 8-wire, Cat. 6, PUR

Advantages

- Suitable for generic cabling Category 6 / Class E according ISO/IEC 11801 respectively EN 50173-1 especially for flexible installation (patch cords)
- Qualified for transmission up to 1GigaBit Ethernet 1000Base-T acc. IEEE802.3ab
- Based on stranded copper wires 27/7AWG delivers patch cord performance up to 250MHz
- Applicable for industrial premises
- High EMC capability based on the PIMF construction
- Flame retardant, halogen free and RoHS compliant

General

This high-speed data cable was designed for flexible installation in industrial premises and it's especially suitable for termination of HARTING RJ45 data plugs in IP20 as well as in IP 67 / 65.

The four pair / eight wire PIMF-construction allows the transmission of IT digital and analogue signals like Ethernet 10/100Mbit/s, 1GigaBit/s, video and voice services as well as IP-based data services.

It delivers all characteristics to complete a Generic cabling system according ISO/IEC 24702:2006 respectively EN 50173-3:2007. Maximum patch cord length specified up to 20m (part of transmission channel class E)

Transmission performance meets Cat.6 specification up to 250MHz for 1GigaBit Ethernet transmission according IEEE802.3ab.

The cable is fully screened (each pair in metal foil plus an overall wire braid) and guaranties a very protective signal transmission and high EMC performance.

PUR is used as jacket material. The cable is flame retardant, halogen free and RoHS compliant.

Identification

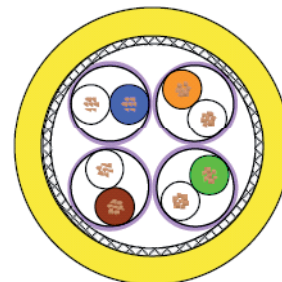
Part number

Drawing

Industrial Ethernet Cable
8-wires, Cat. 6, PUR

20 m ring
50 m ring
100 m ring
500 m reel

09 45 600 0630
09 45 600 0640
09 45 600 0600
09 45 600 0620



- Wire: bare stranded copper, AWG27/7
- Insulation: PE, Ø 0.98 mm
- Pairs : Aluminate foil overlapped PIMF
- Overall screen: tinned copper wire braid, braid coverage about 60%
- Outer sheath: PUR, flame retardant, lead free

Color code: whbu/bu, whor/or, whgn/gn, whbr/br
Color of outer sheath: rape yellow, RAL 1021
Overall diameter: 6.3 mm – 6.9 mm

Technical Characteristics

Performance

Category 6 according to EN 50288-5-2

Mechanical Characteristics

Minimal bending radius

During installation: 8 x diameter

After installation: 4 x diameter

Tensile strength

max. 70 N

Electrical Characteristics at 20°C

DC loop resistance

385 Ohm/km

Insulation resistance

1.5 TOhm x km

Propagation delay

4.6 ns/m

Characteristic impedance 1 - 100 MHz

100 Ohm - 115 Ohm

Characteristic impedance 100 - 250 MHz

100 Ohm - 110 Ohm

Mean characteristic impedance 10 - 250 MHz

100 Ohm - 110 Ohm

Test voltage

700V

Operating voltage

max. 100V

Chemical Characteristics

Flame retardant

IEC 60332-1-2

Free of hazardous substances

RoHS 2002/95/EG

Thermal Characteristics

Temperature range

- 40° C bis + 70° C

Printing

HARTING INDUSTRIAL CABLE S/FTP CAT 6 PUR
4x2xAWG27/7 094560006000100 „year/internal order number“
„sequential length in metres“ Textintervals about 1000 mm

Weight about

43 kg/km

Technical Characteristics

Frequency MHz	Attenuation dB/100m		NEXT dB		PS NEXT dB		EL FEXT dB		PS EL FEXT dB		Return Loss dB	
	typ.	Cat 6 max*	typ.	Cat 6 max*	typ.	Cat 6 max*	typ.	Cat 6 max*	typ.	Cat 6 max*	typ.	Cat 6 max*
1	3.0	3.1	75	66	75	64	80	66	80	64	24	20
4	5.6	5.8	80	65.3	80	63.3	80	58	80	55	27	23
10	8.7	9.0	95	59.3	90	57.3	75	50	70	47	29	25
16	11	11.4	95	56.2	90	54.2	70	45.9	68	43	29	25
20	12.2	12.8	91	54.8	88	52.8	68	44.0	65	41	29	25
31.25	15.3	16.1	88	51.9	86	49.9	62	40.1	62	37.1	30	23.6
62.5	22	23.2	83	47.4	78	45.3	45	34.1	45	31.1	30	21.53
100	28.3	29.9	77	44.3	75	42.3	38	30.0	40	27	30	20.1
155	36	38.0	72	41.4	70	39.4	38	26.2	38	23.2	26	18.8
200	41.5	43.7	68	39.8	67	37.8	37	24	37	21	23	18
250	47.1	49.5	65	38.3	65	36.3	35	22	35	19	22	17.32

* EN 50288-5-2 (except Attenuation max. 10% higher)