HARTING Industrial Cable 8-wire Cat. 6 PVC

Industrial Cable
8-wire, Cat. 6, PVC

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 AWG28/7 delivers patch cord performance up to 250MHz
- Applicable for industrial premises
- High EMC capability based on the PIMF construction
- Flame retardant, lead free and RoHS compliant
- UL certified AWM Style 20276

General

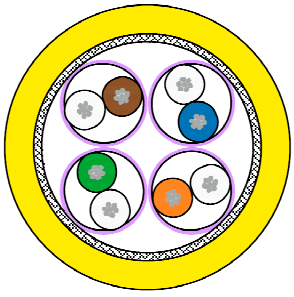
This high-speed data cable was designed for flexible installation in industrial premises and it's especially suitable for termination of HARTING RJ45 data plugs in IP 20 as well as in IP 67 / 65.

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.
PVC is used as jacket material. The cable is flame retardant, lead free and RoHS compliant.

Identification		Part number	Drawing
Industrial Cable 8-wire, Cat. 6, PVC			
20 m	ring	09 45 600 0532	
50 m	ring	09 45 600 0542	
100 m	ring	09 45 600 0502	
500 m	reel	09 45 600 0522	



- Wire: tinned stranded copper, AWG28/7
- Insulation: PE, Ø 0.98 mm
- Color code: whbu/bu, whor/or, whgn/gn, whbr/br
- Pairs : Aluminate foil overlapped PIMF
- Overall screen: tinned copper wire braid, braid coverage about 60 %
- Outer sheath: Polyvinylchloride (PVC), flame retardant, lead free

Color of outer sheath: rape yellow, RAL 1021
Overall diameter: 6.3 mm – 6.9 mm

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Technical Characteristics

Performance	Category 6 according to EN 50288-5-2 (Attenuation max. 10% higher)
Mechanical Characteristics	
Minimal bending radius	Repeated bending: 8 x diameter Single bending: 4 x diameter
Dynamical bending (Tick - Tock)	30,000 cycles EN 50396:2005 Chpt. 6 (angle: +/- 90 °, radius: 70 mm, laod: 1 kg, cyc. p. min: 70)
Tensile strength	max. 70 N
Electrical Characteristics at 20 °C	
Conductor resistance	max. 385 Ohm/km
Insulation resistance	min. 1.5 TOhm*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
Characteristic impedance 10 - 250 MHz	100 Ohm - 110 Ohm
Test voltage	700 V
Operating voltage	max. 100 V
Chemical Characteristics	
Flame retardant	IEC 60332-1-2
Free of hazardous substances	RoHS 2002/95/EG
Thermal Characteristics	
Permissible temperature range	
fixed operation	- 10 °C to + 80 °C
flexible operation	- 10 °C to + 80 °C
Printing	HARTING INDUSTRIAL GIGABIT ETHERNET STRANDED CABLE CAT 6 4x2xAWG28/7 E130266 AWM STYLE 20276 80°C 30V 094560005000200 “meter marking” “Charge Number” “HARTING Logo”
Weight about	43 kg/km

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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 min*	typ.	Cat 6 min*	typ.	Cat 6 min*	typ.	Cat 6 min*	typ.	Cat 6 min*
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