

Industrial Cable 8-wire, Cat. 5, PUR



Advantages

- Suitable for generic cabling Category 5 / Class D 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 26/7AWG delivers patch cord performance up to 100MHz
- Applicable for industrial premises
- Double jacket allows Easy-Stripping and delivers very short assembling time
- Good EMC capability based on fully screen design
- Flame retardant, halogen free and RoHS compliant
- UL approved, UL AWM style 20963, E96807

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 IP67/65.

The four pair / eight wire TP 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 D)

Transmission performance meets Cat.5 specification up to 100MHz for 1GigaBit Ethernet transmission according IEEE802.3ab.

The cable is fully screened by 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. 5, PUR

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

09 45 600 0430
09 45 600 0440
09 45 600 0400
09 45 600 0420



- Wire: bare stranded copper, AWG26/7
- Insulation: PE, Ø 1.0 mm
- Inner sheath: halogen free, flame retardant compound
- Overall screen: Aluminium-bonded polyeste tape and tinned copper wire braid, braid coverage about 85%
- Outer sheath: PUR, flame retardant, lead free

Color code: whbu/bu, whor/or, whgn/gn, whbr/br
Color of inner sheath: white
Color of outer sheath: rape yellow, RAL 1021
Overall diameter: 6.5 mm – 6.9 mm

Technical Characteristics

Performance

Category 5 according to EN 50288-2-2(2004)
/IEC 61 156-6(2002)

Mechanical Characteristics

Minimal bending radius	During installation: 8 x diameter After installation: 4 x diameter
Tensile strength	max. 60 N
Crush	1000 N/100mm

Electrical Characteristics at 20°C

Transfer impedance at 10 MHz	5 mOhm/m
Coupling attenuation up to 1000 MHz	90 dB
DC loop resistance	max. 145 Ohm/km
Insulation resistance	min. 5 GOhm x km
Mutual capacitance	47 pF/m
Signal velocity	0.69 c
Propagation delay	485 ns/100m
Skew at 100 MHz	15 ns/100m
Characteristic impedance at 100 MHz	100 Ohm +/- 5 Ohm
Test voltage	1000V
Operating voltage	max. 125V

Chemical Characteristics

Flame retardant	IEC 60332-1-2
Halogen free	IEC 60754-2
Fire load	0.75 MJ/m
Free of hazardous substances	RoHS 2002/95/EG

Thermal Characteristics

Temperature range for fixed installation	- 40° C to + 80° C
Temperature range for mobile operation	-10° C to + 60° C

Printing

HARTING INDUSTRIAL CABLE SF/UTP ES CAT 5 PUR
4x2xAWG26/7 * E96807 „RU“ AWM 20963 80°C 30V *
094560001050000 \$Production lot code\$ \$Meter marking\$

Weight about

58 kg/km

Technical Characteristics

Frequency MHz	Attenuation dB/10m		NEXT dB		PS NEXT dB		ACR dB@10m		PS ACR dB@10m		EL FEXT dB@10m		PS EL FEXT dB@10m		Return Loss dB	
	typ.	Cat 5 max*	typ.	Cat 5 max*	typ.	Cat 5 max*	typ.	Cat 5 max*	typ.	Cat 5 max*	typ.	Cat 5 max*	typ.	Cat 5 max*	typ.	Cat 5 max*
1	0.24	0.32	76	65	73	62	76	65	73	62	91	64	88	61	24.9	-
4	0.44	0.6	71	56	68	53	70	56	67	53	76	52	73	49	29.8	23
10	0.8	0.95	64	50	61	47	63	49	60	47	68	44	65	41	38.2	25
16	1.01	1.21	60	47	57	44	59	46	56	44	64	61	61	37	39.3	25
31.25	1.44	1.71	56	43	53	40	54	41	51	40	58	34	55	31	36.7	23.6
62.5	2.07	2.48	52	38	49	35	50	36	47	35	52	28	49	25	35	21.5
100	2.66	3.2	48	35	45	32	45	32	42	32	47	24	44	21	29.9	20.1
155	3.26	-	45	-	42	-	42	-	39	-	42	-	39	-	26.2	-
200	3.86	-	42	-	39	-	39	-	36	-	37	-	34	-	23.5	-

* EN 50288-2-2(2004)/IEC 61156-6(2002)