

## Industrial Cable 8-wire, Cat. 6A, PUR



### Advantages

- Suitable for generic cabling Category 6A / Class EA according ISO/IEC 11801 respectively EN 50173-1 especially for flexible installation (patch cords)
- Qualified for transmission up to 10GigaBit Ethernet 10GBase-T acc. IEEE802.3an
- Based on stranded copper wires AWG26/7 delivers patch cord performance up to 500MHz
- Applicable for industrial premises
- High EMC capability based on the PIMF construction
- Oil- and UV resistant, flame retardant, halogen free and RoHS compliant
- UL certified AWM Style 21815

### General

This high-speed data cable was designed for flexible installation in industrial premises and is especially suitable for termination of HARTING RJ45 data plugs in IP 20 as well as in IP65 / 67.

The four pair / eight wire PIMF-construction allows the transmission of IT digital and analogue signals like Ethernet 10/100Mbit/s, 10GigaBit/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 respectively EN 50173-3.

Transmission performance meets Cat.6A specification up to 500 MHz for 10GigaBit Ethernet transmission according IEEE802.3an. The cable is fully screened (each pair in metal foil plus an overall wire braid) and guaranties a very safe signal transmission and high EMC performance. PUR is used as jacket material. The cable is flame retardant, halogen free, RoHS compliant and UL certified.

### Identification

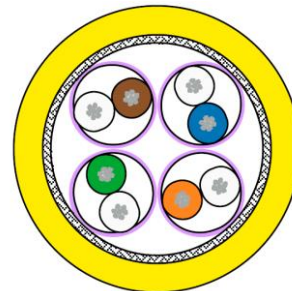
### Part number

### Drawing

Industrial Cable  
8-wire, Cat. 6A, 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: stranded bare copper, AWG26/7
- Insulation: PE foamed, Ø 1.05 mm
- Color code: wh/bu, wh/or, wh/gn, wh/br
- Pairs : Aluminate foil overlapped (PIMF)
- Overall screen: tinned copper wire braid, coverage about 70 %
- Outer sheath: Polyurethane (PUR), flame retardant, halogen free, lead free

Color of outer sheath: rape yellow, RAL 1021  
Overall diameter: 6,7 mm ± 0,3 mm

All data given are in line with the actual state of art and therefore not binding.  
HARTING reserves the right to modify designs without giving the relevant reasons.

## Technical Characteristics

<b>Performance</b>	Category 6A according to IEC 61156-6
<b>Mechanical Characteristics</b>	
Minimal bending radius	Repeated bending: 10 x diameter Single bending: 5 x diameter
Tensile strength	max. 70 N
<b>Electrical Characteristics at 20 °C</b>	
Conductor resistance	max. 290 Ohm/km
Insulation resistance	min. 500 MOhm*km
Signal run time	max. 5.13 ns/m
Characteristic impedance 100 MHz	(100 ± 5) Ohm
Test voltage (wire/wire/screen 50Hz 1min)	700 V
Operating voltage (peak)	max. 100 V
UL certified	AWM 21815 (80°C/300V)
<b>Chemical Characteristics</b>	
Flame retardant	IEC 60332-1-2
Halogen free	IEC 60754-1
Oil resistant	EN 60811-404 (90 °C / 7x24h)
Free of hazardous substances	RoHS 2011/65/EC
UV-resistant	
<b>Thermal Characteristics</b>	
Permissible temperature range	
fixed operation	- 40 °C to + 80 °C
flexible operation	- 40 °C to + 80 °C
<b>Printing</b>	HARTING INDUSTRIAL CABLE S/FTP CAT 6A PUR 4x2xAWG26/7 E333435 AWM STYLE 21815 80°C 300V 094560006000101 "year/internal order number" "sequential length in metres"
<b>Weight about</b>	46 kg/km

## Technical Characteristics

Frequency MHz	Attenuation dB/100m	NEXT dB	PS NEXT dB	EL FEXT dB	PS EL FEXT dB	Return Loss dB	
1	3.1	75.63	72.3	67.8	64.8	20	
4	5.7	66.3	63.3	55.8	52.8	23	
8	8	61.8	58.8	49.7	46.7	24.5	
10	8.9	60.3	57.3	47.8	44.8	25	
16	11.2	57.2	54.2	43.7	40.7	25	
20	12.6	55.8	52.8	41.8	38.8	25	
25	14.1	54.3	51.3	39.8	36.8	24.2	
31.25	15.8	52.8	49.9	37.9	34.9	23.3	
62.5	22.5	48.4	45.4	31.9	28.9	20.7	
100	28.7	45.3	42.3	27.8	24.8	19	
200	41.4	40.8	37.8	21.8	18.8	16.4	
250	46.6	39.3	36.3	19.8	16.8	15.6	
300	51.4	38.1	35.1	18.3	15.3	15.6	
400	60.1	36.3	33.3	15.8	12.8	15.6	
500	67.9	34.8	31.8	13.8	10.8	15.6	

acc. to IEC 61156-6

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