

## Industrial Cable 8-wire, Cat. 6<sub>A</sub>, PUR



### Advantages

- Suitable for generic cabling Category 6<sub>A</sub> / Class E<sub>A</sub> 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
- 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 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, 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. Maximum patch cord length specified up to 20m (part of transmission channel class E<sub>A</sub>)

Transmission performance meets Cat.6<sub>A</sub> 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 safety signal transmission and high EMC performance. PUR is used as jacket material. The cable is flame retardant, halogen free and RoHS compliant.

#### Identification

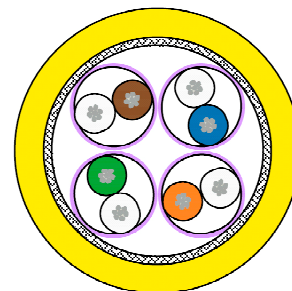
Industrial Cable  
8-wire, Cat. 6<sub>A</sub>, PUR

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

#### Part number

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

#### Drawing



- Wire: tinned stranded copper, AWG26/7
- Insulation: PE, Ø 1.05 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 70 %
- Outer sheath: Polyurethane (PUR), flame retardant, halogen free, lead free

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

### Performance

Category 6<sub>A</sub> according to IEC 61156-6

### Mechanical Characteristics

Minimal bending radius

Repeated bending: 8 x diameter

Single bending: 4 x diameter

Tensile strength

max. 70 N

### Electrical Characteristics at 20 °C

Conductor resistance

max. 290 Ohm/km

Insulation resistance

min. 500 MOhm\*km

Propagation delay

5.13 ns/m

Characteristic impedance 100 MHz

(100 ± 5) Ohm

Test voltage

700 V

Operating voltage

max. 100 V

### Chemical Characteristics

Flame retardant

IEC 60332-1-2

Halogenfree

IEC 60754-1

Oil resistant

EN 60811-2-1 (90 °C / 7x24h)

Free of hazardous substances

RoHS 2002/95/EG

### Thermal Characteristics

Permissible temperature range

fixed operation

- 40 °C to + 80 °C

flexible operation

- 40 °C to + 80 °C

### Printing

HARTING INDUSTRIAL CABLE S/FTP CAT 6<sub>A</sub> PUR

4x2xAWG26/7 094560006000101 „year/internal order number“

„sequential length in metres“ Textintervals about 1000 mm

### Weight about

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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