| HARTING Industrial Cable 8-wire Cat. 6 <sub>A</sub> PUR   |  |              |   |  |  |  |  |  |  |
|---|--|--------------|---|--|--|--|--|--|--|
| Industrial Cable<br>8-wire, Cat. 6 <sub>A</sub> , PUR   |  |              |   |  |  |  |  |  |  |
| Advantages  |  |              | General   |  |  |  |  |  |  |
| <ul> <li>Suitable for generic cabling Category<br/>6<sub>A</sub> / Class E<sub>A</sub> according ISO/IEC<br/>11801 respectively EN 50173-1<br/>especially for flexible installation (patch<br/>cords)</li> <li>Qualified for transmission up to<br/>10GigaBit Ethernet 10GBase-T acc.<br/>IEEE802.3an</li> <li>Based on stranded copper wires<br/>AWG26/7 delivers patch cord<br/>performance up to 500MHz</li> <li>Applicable for industrial premises</li> <li>High EMC capability based on the<br/>PIMF construction</li> <li>Flame retardant, halogen free and<br/>RoHS compliant</li> </ul> |  |              | 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.<br>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.<br>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 $E_A$ )<br>Transmission performance meets Cat. $6_A$ specification up to 500 MHz for 10GigaBit Ethernet transmission according IEEE802.3an.<br>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.<br>PUR is used as jacket material. The cable is flame retardant, halogen free and RoHS compliant. |  |  |  |  |  |  |
| Identification  | Part numbe   | er           | Drawing   |  |  |  |  |  |  |
| Industrial Cable<br>8-wire, Cat. 6 <sub>A</sub> , PUR<br>20 m ring<br>50 m ring<br>100 m ring<br>500 m reel   | 09 45 600 (<br>09 45 600 (<br>09 45 600 (<br>09 45 600 ( | 0640<br>0600 | <ul> <li>Wire: tinned stranded copper, AWG26/7</li> <li>Insulation: PE, Ø 1.05 mm</li> <li>Color code: whbu/bu, whor/or, whgn/gn, whbr/br</li> <li>Pairs : Aluminate foil overlapped PIMF</li> <li>Overall screen: tinned copper wire braid, braid coverage about 70 %</li> <li>Outer sheath: Polyurethane (PUR), flame retardant, halogen free, lead free</li> <li>Color of outer sheath: rape yellow, RAL 1021 Overall diameter: 6.3 mm – 6.9 mm</li> </ul>   |  |  |  |  |  |  |
|   |  |              | e actual state of art and therefore not binding.<br>dify designs without giving the relevant reasons.   |  |  |  |  |  |  |

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

## **Technical Characteristics**

#### Performance

#### Mechanical Characteristics Minimal bending radius

Tensile strength

### Electrical Characteristics at 20 °C

Conductor resistance Insulation resistance Propagation delay Characteristic impedance 100 MHz Test voltage Operating voltage

#### **Chemical Characteristics**

Flame retardant Halogenfree Oil resistant Free of hazardous substances

### **Thermal Characteristics**

Permissible temperature range fixed operation flexible operation

### Printing

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

Repeated bending: 8 x diameter Single bending: 4 x diameter max. 70 N

max. 290 Ohm/km min. 500 MOhm\*km 5.13 ns/m (100 ± 5) Ohm 700 V max. 100 V

IEC 60332-1-2 IEC 60754-1 EN 60811-2-1 (90 °C / 7x24h) RoHS 2002/95/EG

- 40 ℃ to + 80 ℃ - 40 ℃ to + 80 ℃

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

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**

|                  |                        |            | 1             |               |                  |                   |
|------------------|------------------------|------------|---------------|---------------|------------------|-------------------|
| Frequency<br>MHz | Attenuation<br>dB/100m | NEXT<br>dB | PS NEXT<br>dB | EL FEXT<br>dB | PS EL FEXT<br>dB | Return Loss<br>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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