



## Ha-VIS Industrial Cable 8-wire, Cat. 6<sub>A</sub>, PVC

### Advantages

- Suitable for generic cabling Category 6<sub>A</sub> / Class E<sub>A</sub> according to ISO/IEC 11 801 respectively EN 50 173-1 especially for flexible installation (patch cords)
- Qualified for transmission up to 10 Gigabit Ethernet 10GBase-T acc. IEEE 802.3an
- Based on stranded copper wires AWG 26/7 delivers patch cord performance up to 500 MHz
- Applicable for industrial premises
- High EMC capability based on the PIMF construction
- Flame retardant, lead free and RoHS compliant
- UL certified AWM Style 20276

### Application

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 / IP 65. The four pair / eight wire PIMF-construction allows the transmission of IT digital and analogue signals like Ethernet 10/100 Mbit/s, 10 Gigabit/s, video and voice services as well as IP-based data services.

It delivers all characteristics to complete a generic cabling system according to ISO/IEC 24 702 respectively EN 50 173-3. Maximum patch cord length specified up to 20 m (part of transmission channel class E<sub>A</sub>)

Transmission performance meets Cat. 6<sub>A</sub> specification up to 500 MHz for 10 Gigabit Ethernet transmission according to IEEE 802.3an. The cable is fully screened (each pair in metal foil plus an overall wire braid) and guarantees a very safety signal transmission and high EMC performance.

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

#### Identification

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

Sheath material: Polyvinylchloride (PVC), flame retardant, lead free

Colour: yellow, RAL 1021

Cable sheath diameter:  
6.3 mm ... 6.9 mm

Transmission performance:  
Cat. 6<sub>A</sub> / transmission class E<sub>A</sub> up to 500 MHz according to ISO/IEC 11 801 and EN 50 173-1

Transmission rate:  
10/100 Mbit/s / 1/10 Gbit/s

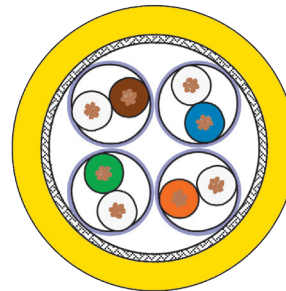
Cable weight: 47 kg/km

#### Order information:

20 m ring	09 45 600 0532
50 m ring	09 45 600 0542
100 m ring	09 45 600 0502
500 m drum	09 45 600 0522

#### Part number

#### Drawing



#### Conductor

wire: stranded bare copper 4x2xAWG 26/7

Insulation: PE, Ø 1.05 mm

colours: wh/bu, wh/or, wh/gn, wh/br

#### Pairs

Aluminate foil overlapped PIMF


#### Screening

tinned copper wire braid,  
braid coverage about 70 %

#### Jacket

Polyvinylchloride (PVC), flame retardant, lead free

## Technical characteristics

<b>Transmission performance</b>	Category 6 <sub>A</sub> according to IEC 61 156-6
<b>Mechanical features</b>	
minimum bending radius	Repeated bending: 8 x cable diameter Singular bending: 4 x cable diameter
Tensile strength	max. 70 N
<b>Electrical characteristics at 20 °C</b>	
Conductor resistance	max. 290 Ohm/km
Insulation resistance	min. 500 MOhm x km
Propagation delay	5.3 ns/m
Characteristic impedance at 100 MHz	100 Ohm +/- 5 Ohm
Test voltage	700 V
Operating voltage	max. 100 V
<b>Chemical characteristics</b>	
Flame retardant	IEC 60 332-1-2
Free of hazardous substances	RoHS 2002/95/EG
UV resistant	
<b>Thermic features</b>	
Permissible temperature range	
fixed operation	- 20 °C ... + 80 °C
flexible operation	- 20 °C ... + 80 °C
<b>Printing</b>	HARTING INDUSTRIAL CABLE CAT 6 <sub>A</sub> S/FTP 4x2xAWG26/7 E333435  AWM STYLE 20276 80°C 30V 094560005000201 "meter marking" "Charge Number" "HARTING LOGO"
<b>Weight</b>	47 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	8.0	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

according to IEC 61 156-6

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