

## Industrial Cable 8-wire, Cat. 6, PVC



### Advantages

- Suitable for generic cabling Category 6 / Class E 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 AWG28/7 delivers patch cord performance up to 250MHz
- Applicable for industrial premises
- High EMC capability based on the PIMF construction
- Flame retardant, lead free and RoHS compliant
- UL certified AWM Style 20276

### 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, 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 E)

Transmission performance meets Cat.6 specification up to 250MHz for 1GigaBit Ethernet transmission according IEEE802.3ab. The cable is fully screened (each pair in metal foil plus an overall wire braid) and guaranties a very protective signal transmission and high EMC performance. PVC is used as jacket material. The cable is flame retardant, lead free and RoHS compliant.

### Identification

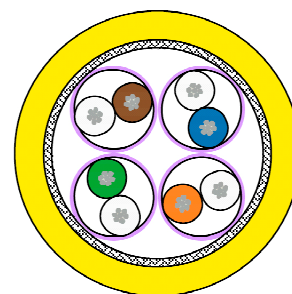
Industrial Cable  
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20 m	ring
50 m	ring
100 m	ring
500 m	reel

### Part number

09 45 600 0532
09 45 600 0542
09 45 600 0502
09 45 600 0522

### Drawing



- Wire: tinned stranded copper, AWG28/7
- Insulation: PE, Ø 0.98 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 60 %
- Outer sheath: Polyvinylchloride (PVC), flame retardant, 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

<b>Performance</b>	Category 6 according to EN 50288-5-2 (Attenuation max. 10% higher)
<b>Mechanical Characteristics</b>	
Minimal bending radius	Repeated bending: 8 x diameter Single bending: 4 x diameter
Dynamical bending (Tick - Tock)	30,000 cycles EN 50396:2005 Chpt. 6 (angle: +/- 90 °, radius: 70 mm, load: 1 kg, cyc. p. min: 70)
Tensile strength	max. 70 N
<b>Electrical Characteristics at 20 °C</b>	
Conductor resistance	max. 385 Ohm/km
Insulation resistance	min. 1.5 TOhm*km
Propagation delay	4.6 ns/m
Characteristic impedance 1 - 100 MHz	100 Ohm - 115 Ohm
Characteristic impedance 100 - 250 MHz	100 Ohm - 110 Ohm
Characteristic impedance 10 - 250 MHz	100 Ohm - 110 Ohm
Test voltage	700 V
Operating voltage	max. 100 V
<b>Chemical Characteristics</b>	
Flame retardant	IEC 60332-1-2
Free of hazardous substances	RoHS 2002/95/EG
<b>Thermal Characteristics</b>	
Permissible temperature range	
fixed operation	- 10 °C to + 80 °C
flexible operation	- 10 °C to + 80 °C
<b>Printing</b>	HARTING INDUSTRIAL GIGABIT ETHERNET STRANDED CABLE CAT 6 4x2xAWG28/7 E130266 AWM STYLE 20276 80 °C 30V 094560005000200 "meter marking" "Charge Number" "HARTING Logo"
<b>Weight about</b>	43 kg/km

## Technical Characteristics

Frequency MHz	Attenuation dB/100m		NEXT dB		PS NEXT dB		EL FEXT dB		PS EL FEXT dB		Return Loss dB	
	typ.	Cat 6 max*	typ.	Cat 6 min*	typ.	Cat 6 min*	typ.	Cat 6 min*	typ.	Cat 6 min*	typ.	Cat 6 min*
<b>1</b>	3.0	3.1	75	66	75	64	80	66	80	64	24	20
<b>4</b>	5.6	5.8	80	65.3	80	63.3	80	58	80	55	27	23
<b>10</b>	8.7	9.0	95	59.3	90	57.3	75	50	70	47	29	25
<b>16</b>	11	11.4	95	56.2	90	54.2	70	45.9	68	43	29	25
<b>20</b>	12.2	12.8	91	54.8	88	52.8	68	44.0	65	41	29	25
<b>31.25</b>	15.3	16.1	88	51.9	86	49.9	62	40.1	62	37.1	30	23.6
<b>62.5</b>	22	23.2	83	47.4	78	45.3	45	34.1	45	31.1	30	21.53
<b>100</b>	28.3	29.9	77	44.3	75	42.3	38	30.0	40	27	30	20.1
<b>155</b>	36	38.0	72	41.4	70	39.4	38	26.2	38	23.2	26	18.8
<b>200</b>	41.5	43.7	68	39.8	67	37.8	37	24	37	21	23	18
<b>250</b>	47.1	49.5	65	38.3	65	36.3	35	22	35	19	22	17.32

\* EN 50288-5-2

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## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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