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Network cable, Ethernet CAT5 (1 Gbps), Ethernet CAT5e (1 Gbps), 8-position, PUR, water blue RAL 5021, shielded, Plug Straight M12 SPEEDCON / IP67, Coding: A, on Free cable end, Cable length: 1 m



# Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	70.0 GRM
Custom tariff number	85444210
Country of origin	Poland

## Technical data

# **Dimensions**

Length of cable	1 m

# Ambient conditions

Degree of protection	IP65
	IP67

#### General data

Rated current at 40°C	2 A
Rated voltage	30 V
Number of positions	8
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 1 Gbps
	Ethernet CAT5e (TIA 568B:2001), 1 Gbps
Standards/regulations	M12 connector IEC 61076-2-101

## Characteristics head 1

Head design	Plug Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	8



# Technical data

# Characteristics head 1

Coding	A (Standard)
Color	black
Material (component)	CuZn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm
Ambient temperature (operation)	-25 °C 90 °C

# Characteristics head 2

Head design	Free cable end

## Cable

Cable type	Ethernet, flexible, CAT5e
Cable type (abbreviation)	94B
UL AWM style	20963 (80 °C / 60 V)
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 1 Gbps
	Ethernet CAT5e (TIA 568B:2001), 1 Gbps
Cable structure	4x2xAWG26/7; SF/UTP
Conductor cross section	4x 2x 0.14 mm²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	0.98 mm
Thickness, insulation	0.25 mm
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Twisted pairs	2 cores to the pair
Overall twist	4 pairs
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1 mm
External cable diameter D	6.4 mm ± 0.2 mm
Smallest bending radius, fixed installation	25.6 mm
Smallest bending radius, movable installation	51.2 mm



# Technical data

# Cable

Tensile strength short-term/long-term	≤ 100 N
Cable weight	47 kg/km
Outer sheath, material	PUR
Material conductor insulation	PE
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq 500~\text{M}\Omega^{\star}\text{km}$
Loop resistance	$\leq$ 290 $\Omega$ (per kilometer)
Working capacitance	48 nF (At 1 kHz)
Wave impedance	100 Ω ± 5 Ω (At 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	$\leq$ 100.00 m $\Omega$ /m (At 10 MHz)
Nominal voltage, cable	≤ 100 V
	300 V (Outer cable sheath)
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	IEC 60332-1-2
Halogen-free	According to IEC 60754-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-20 °C 80 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C 80 °C
Ambient temperature (storage/transport)	-20 °C 80 °C

# Classifications

# eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801

# **ETIM**

ETIM 3.0	EC001855
ETIM 4.0	EC001855



# Classifications

#### **ETIM**

ETIM 5.0	EC001855

## **UNSPSC**

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

# Accessories

Accessories

**Cutting tools** 

Cable-cutting tool - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

## Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 sockets



# Safety locking

Fuse clip - SAC-M12-EXCLIP-M - 1558988



Fuse clip for the pin side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool



# Accessories

Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

## Stripping tool

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

#### Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors



# Accessories

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

#### Tool - VS-CABLE-STRIP-VARIO - 1657407



Stripping tool, for the multi-level stripping of shielded cables

# **Drawings**

## Schematic diagram



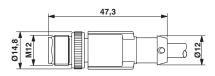
Pin assignment M12 plug, 8-pos., A-coded, view plug side

# Cable cross section



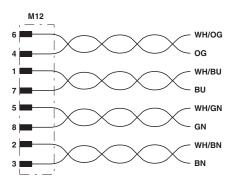
Ethernet, flexible, CAT5e [94B]

## Dimensioned drawing



Plug, M12 x 1, straight, shielded

## Circuit diagram



Contact assignment of the M12 plug



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