SAC-4P-M12MS/ 5,0-990/M12FS - Bus system cable

1558441

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Bus system cable, CC link (10 Mbps), 4-position, PVC, red, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 5 m

Commercial data

Item number	1558441
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF04
Product key	AF1CJF
GTIN	4046356293778
Weight per piece (including packing)	398.2 g
Weight per piece (excluding packing)	416.8 g
Customs tariff number	85444290
Country of origin	PL

Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
Number of positions	4
No. of cable outlets	1
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Signal type/category	CC link, 10 Mbps

Signaling

Status display	no
Status display present	no

Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Transmission medium	Copper
Transmission speed	10 Mbps

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

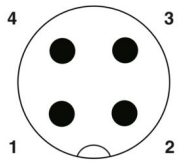
Connection data

Connection assignment

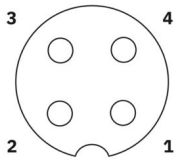
Contact | Color (signal designation) | Contact (optional)	1 (Plug) | SR (shield) | 1 (Socket)
	2 (Plug) | WH (DB) | 2 (Socket)
	3 (Plug) | YE (DG) | 3 (Socket)
	4 (Plug) | BU (DA) | 4 (Socket)

Connector

Connection 1

Dimensional drawing	 Pin assignment M12 plug, 4-pos., A-coded, view plug side
Type	M12 Plug, straight, 4-position, shielded (Advanced Shielding Technology), Keying: A, CC link
Number of positions	4
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	CC link, 10 Mbps
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 Ω
Overvoltage category	II
Degree of pollution	3
Tightening torque	0.4 Nm (M12 connector)
Material Contact	CuSn
Material Contact surface	Ni/Au
Material Contact carrier	PA 6.6
Material Screw connection	Die-cast zinc, nickel-plated
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101

Connection 2

Dimensional drawing	 Pin assignment M12 female, 4-pos., A-coded, view female side
Type	M12 Socket, straight, 4-position, shielded (Advanced Shielding Technology), Keying: A, CC link
Number of positions	4
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	CC link, 10 Mbps
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 Ω
Overvoltage category	II
Degree of pollution	3
Tightening torque	0.4 Nm (M12 connector)
Material Contact	CuSn
Material Contact surface	Ni/Au
Material Contact carrier	PA 6.6
Material Screw connection	Die-cast zinc, nickel-plated
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101

Cable/line

Cable length	5 m

CC-Link [990]

Cable weight	78.8 kg/km
Number of positions	3
Shielded	yes
Cable type	CC-Link [990]
Conductor structure	3xAWG20/7 + 1xAWG22/19 (filler litz wire)
Conductor structure signal line	7x 0.28 mm
AWG signal line	20
Conductor cross-section	0.5 mm²
External cable diameter	7.70 mm

Outer sheath, material	PVC
External sheath, color	red
Conductor material	Bare Cu litz wires
Material wire insulation	foamed PE, with high density
Single wire, color	white, yellow, blue
Thickness, insulation	0.89 mm (Outer cable sheath)
Optical shield covering	78 %
Max. conductor resistance	31.2 Ω/km
Wave impedance	110 Ω
Working capacitance	61 pF
Nominal voltage, cable	300 V
Smallest bending radius, fixed installation	77 mm
Ambient temperature (operation)	-30 °C ... 60 °C (cable, fixed installation)
	-5 °C ... 60 °C (Cable, flexible installation)

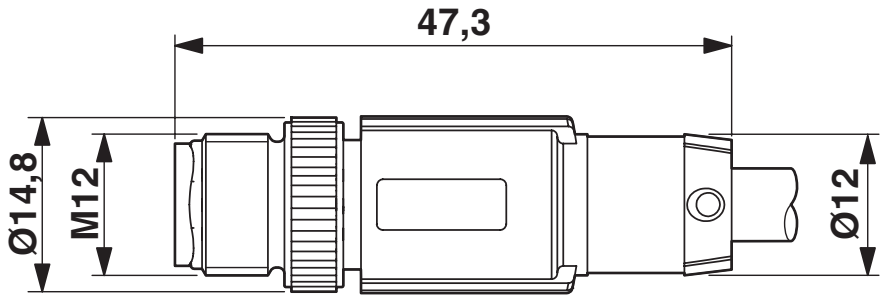
Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)

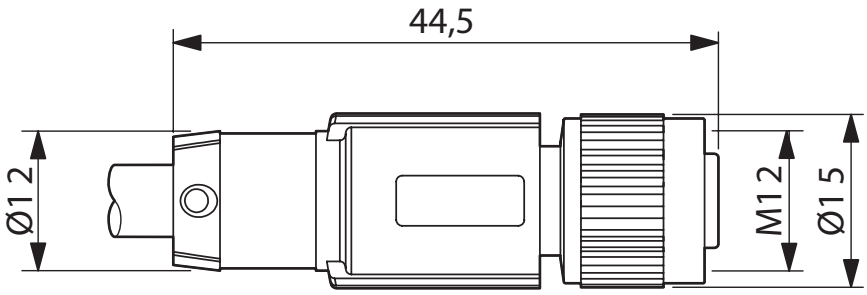
Drawings

Dimensional drawing



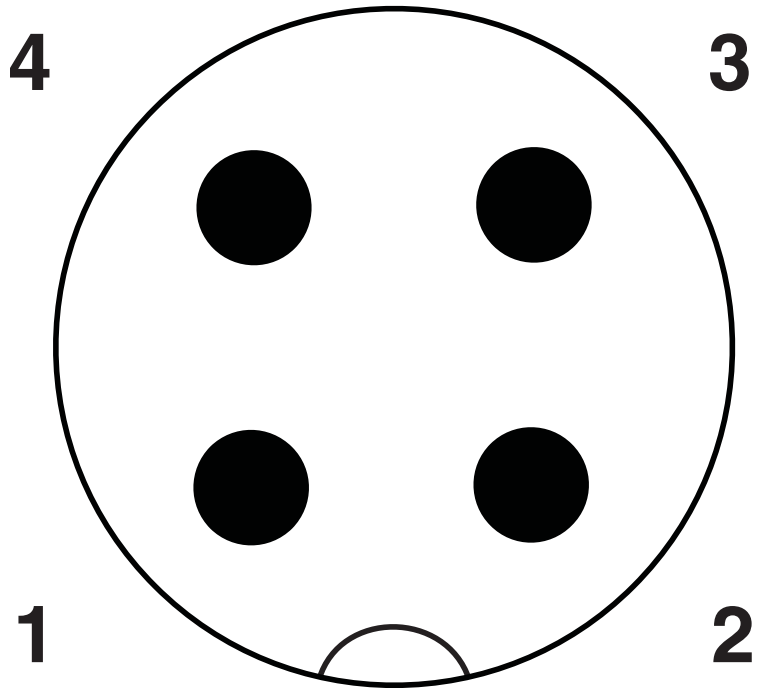
Plug, M12 x 1, straight, shielded

Dimensional drawing



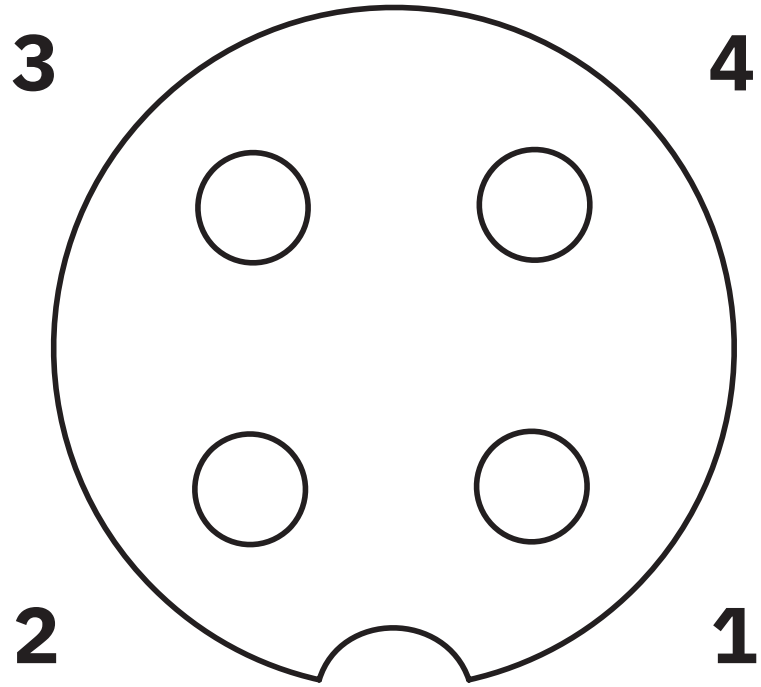
M12 x 1 socket, straight, shielded

Schematic diagram



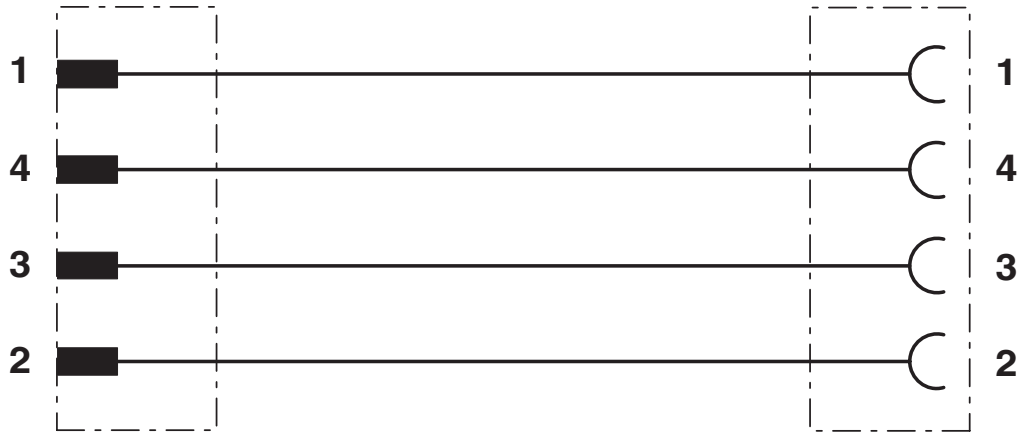
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

Approvals

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cULus Listed
Approval ID: E221474

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 10.0	EC002599

UNSPSC

UNSPSC 21.0	26121600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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