

1404559

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M12 SPEEDCON, coding: A, on Socket angled M12 SPEEDCON, coding: A

Commercial data

Item number	1404559
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	AF1CMA
GTIN	4046356699464
Weight per piece (including packing)	294.1 g
Weight per piece (excluding packing)	292.2 g
Customs tariff number	85444290
Country of origin	PL



1404559

https://www.phoenixcontact.com/us/products/1404559

Technical data

Product properties

Product type	Sensor/actuator cable	
Application	Standard	
Number of positions	8	
No. of cable outlets	1	
Shielded	yes	
Coding	A	
Insulation characteristics		
Overvoltage category	II	
Degree of pollution	3	

Material specifications

Flammability rating according to UL 94	НВ
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

Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	30 V AC
	30 V DC
Nominal current I _N	2 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Signaling

Status display	no
Status display present	no

Connection data

Conductor connection

Tightening torque	0.4 Nm (M12 connector)

Connector

Connection 1



1404559

https://www.phoenixcontact.com/us/products/1404559

Туре	Plug straight M12 SPEEDCON
Number of positions	8
Locking type	SPEEDCON
Coding type	A

Connection 2

Туре	Socket angled M12 SPEEDCON
Number of positions	8
Locking type	SPEEDCON
Coding type	A

Cable/line

PUR halogen-free black [PUR]

Dimensional drawing



Cable weight	53 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	8
Shielded	yes
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	8x 0.25 mm² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm
External cable diameter	5.90 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, green, yellow, gray, pink, blue, red
Thickness, insulation	approx. 0.20 mm
Thickness, outer sheath	approx. 0.50 mm
Overall twist	8 wires around filler to the core
Optical shield covering	85 %
Max. conductor resistance	≤ 78 Ω/km (at 20 °C)
Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC (Spark test)



1404559

https://www.phoenixcontact.com/us/products/1404559

Test voltage Core/Shield	≥ 2000.00 V AC (for 60 s)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	30 mm
Smallest bending radius, movable installation	59 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s²
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥1000000, Torsional frequency: 35 cycles/min.
Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Flame resistance	in acc. with UL FT-2
	according to UL 758/1581 (horizontal)
	in accordance with UL 758/1581 FT2
	According to DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with IEC 60811-404
Other resistance	hydrolysis and microbe resistant
	Resistant to salt water
	low-abrasion
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Special properties	Flexible cable conduit capable
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-25 °C 80 °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)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

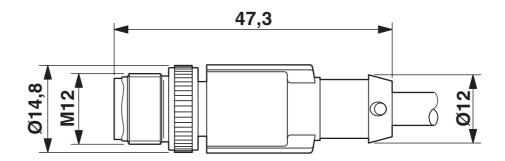


1404559

https://www.phoenixcontact.com/us/products/1404559

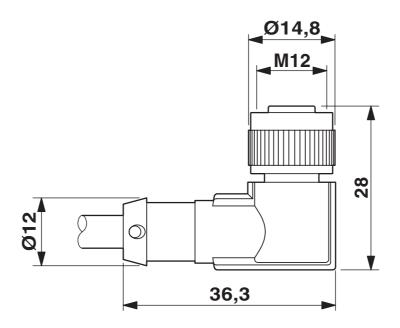
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



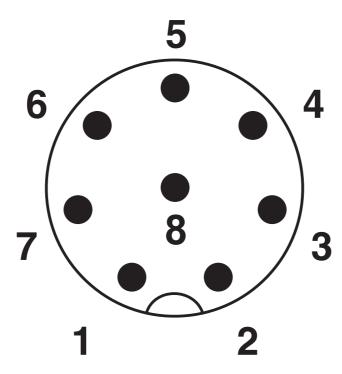
M12 x 1 socket, angled, shielded



1404559

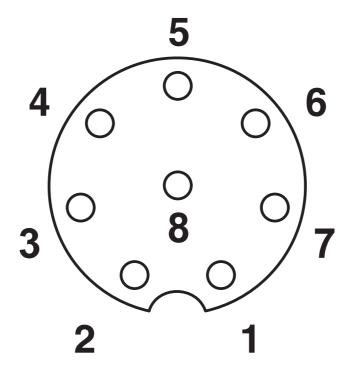
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Schematic diagram



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

Schematic diagram



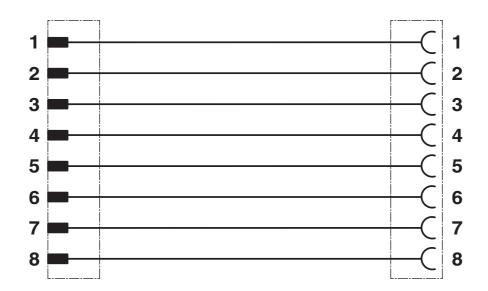
Pin assignment M12 socket, 8-pos., A-coded, view female side



1404559

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Circuit diagram



Contact assignment of the M12 plug and the M12 socket



1404559

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Classifications

ECLASS

	ECLASS-13.0	27060311		
	LOLAGO-13.0	27000311		
	ECLASS-15.0	27060311		
ETIM				
	ETIM 8.0	EC001855		
UNSPSC				

UNSPSC 21.0 26121600



1404559

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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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