

1405599

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Device connector, rear mounting, 8-position, PUR, black-gray RAL 7021, Socket, straight, M12-SPEEDCON, coding: A, on free cable end, Rear mounting, M16 x 1.5, Individual wires, cable length: 10 m, 0.25 mm², PUR halogen-free black, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1238732

Your advantages

- · Preassembled with cables in various standard lengths for immediate use
- · Customer-specific assemblies and cable lengths can be supplied
- · Sealed on the cable side for optimum tightness of seal
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1405599
Packing unit	1 pc
Minimum order quantity	20 pc
Product key	ABQDGG
GTIN	4046356749909
Weight per piece (including packing)	574.2 g
Weight per piece (excluding packing)	555.2 g
Customs tariff number	85444290
Country of origin	DE



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Technical data

Notes

General	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.
General	Lock nut is included in the scope of delivery

Mounting

Mounting type	Rear mounting M16 x 1.5 With flat nut
Assembly instructions	With flat nut
Connection method	Individual wires

Product properties

Product type	Circular connectors (device side)
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	V0
Seal material	FKM
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires

Electrical properties

Rated surge voltage	0.8 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	30 V
Nominal current I _N	2 A
Max. conductor resistance	78 Ω/km



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Connection data

Conductor connection

Connection method	Individual wires
Tightening torque	3 Nm
	4 Nm

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	> 100
Max. bending cycles	4000000

Connector

Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	A

Connection 2

Head design	free cable end
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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



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Conductor cross section	8x 0.25 mm² (Signal line)		
Wire diameter incl. insulation	1.17 mm ±0.02 mm		
External cable diameter	5.9 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. 0.2 mm		
Thickness, outer sheath	approx. 0.5 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)		
Test voltage Core/Shield	≥ 2000 V AC (for 60 s)		
Minimum bending radius, fixed installation	5 x D		
Minimum bending radius, flexible installation	10 x D		
Max. bending cycles	2000000		
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	IP67 (When plugged in)
	IP65 (When plugged in)
	IP65/IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)



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-25 °C 85 °C (Cable, flexible installation)
-40 °C 85 °C (cable, fixed installation)

Standards and regulations

M12

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

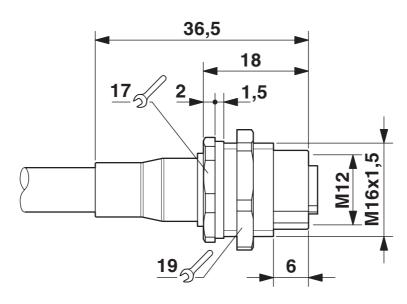


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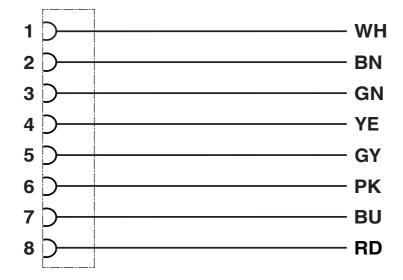
Drawings

Dimensional drawing



Dimensional drawing

Circuit diagram

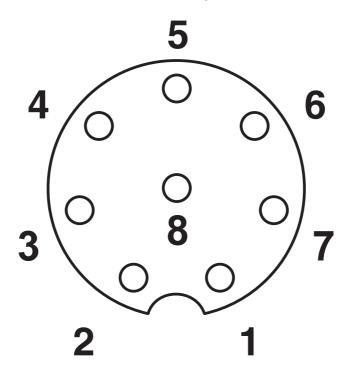




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Pin assignment M12 socket, 8-pos., A-coded, view female side



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/1405599

EHC	EAC
LIIL	Approval ID: B.01687

. 71	cUL Recognized Approval ID: E221474-20220908				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		30 V	1.5 A	-	-

71	UL Recognized Approval ID: E221474-20220908					
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²	
		30 V	2 A	-	-	

cULus Recognized



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Classifications

UNSPSC 21.0

ECLASS

	ECLASS-11.0	27440103		
	ECLASS-12.0	27440103		
	ECLASS-13.0	27440103		
ETIM				
	ETIM 8.0	EC003570		
UNSPSC				

39121400



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Environmental product compliance

REACh SVHC	Lead 7439-92-1	
China RoHS	Environmentally Friendly Use Period = 50 years	
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"	



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Accessories

SACC-M16-SEALING PLUG SET - Screw plug

1453368

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Screw plug, Rear mounting, M16 x 1.5, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239800

PROT-M12 - Screw plug

1680539

https://www.phoenixcontact.com/pc/products/1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors



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PROT-M12 SH - Screw plug

1503302

https://www.phoenixcontact.com/pc/products/1503302



An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors

PROT-M12 FB - Screw plug

1555538

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M12 high-grade steel screw plug, for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors for the food industry



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SACC-M16-SEAL CLM - Flat gasket

1430394

https://www.phoenixcontact.com/pc/products/1430394

M16 flat gasket for M12 flush-type connectors with M16 fastening thread



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