

1108623

https://www.phoenixcontact.com/us/products/1108623

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Device connector, rear mounting, Power, 4-position, Plug, M12, coding: S power , Rear mounting, M16 x 1.5, Individual wires, 1.31  $\text{mm}^2$ , UL/cUL stranded hook-up wire, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1238454

### Your advantages

- · For compact devices: transmit high power in a confined space
- Easy-to-install, optimized XL housing contour with wrench size 19
- · Mechanical tightening limitation for long-term-stable gasket
- · Preassembled with litz wires for immediate use
- · Customer-specific assemblies and litz wire lengths available
- · Sealed on the litz wire side for optimum leak-tightness
- For high transmission safety: shield connection to the housing with optional EMC nut

#### Commercial data

Item number	1108623
Packing unit	1 pc
Minimum order quantity	50 pc
Sales key	AB27
Product key	ABQCGG
GTIN	4063151015145
Weight per piece (including packing)	89.2 g
Weight per piece (excluding packing)	79.5 g
Customs tariff number	85444290
Country of origin	DE



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### Technical data

#### Notes

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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
Safety note	
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	<ul> <li>WARNING: Commission properly functioning products only.         The products must be regularly inspected for damage.         Decommission defective products immediately. Replace damaged products. Repairs are not possible.     </li> </ul>
	<ul> <li>WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.</li> </ul>
	The products are suitable for applications in plant, controller, and electrical device engineering.
	<ul> <li>When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>
	<ul> <li>Assembled products may not be manipulated or improperly opened.</li> </ul>
	<ul> <li>Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).</li> </ul>
	<ul> <li>When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>
	<ul> <li>For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>
	<ul> <li>Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>
	Observe the corresponding technical data. You will find information:     o On the product     o On the packing label     o In the supplied documentation     o Online at phoenixcontact.com/products under the product
	Only use tools recommended by Phoenix Contact
	Use a protective cap to protect connectors that are not in use.  The suitable appropriate are qualitable applies in the appropriate are provided to the protection of the

The suitable accessories are available online in the accessory



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	section of the product at phoenixcontact.com/products
	<ul> <li>Ensure that the protective or functional ground has been properly connected.</li> </ul>
	<ul> <li>VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector</li> </ul>
	<ul> <li>The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).</li> </ul>
Mounting	
Mounting type	Rear mounting
Assembly instructions	Tightening limitation
Connection method	Individual wires
Product properties	
Product type	Circular connectors (device side)
Sensor type	Power
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	S
Insulation characteristics	
Overvoltage category	III
Degree of pollution	3
Material specifications	
Flammability rating according to UL 94	VO
	FKM
Seal material  Contact material	CuZn
Contact material  Contact surface material	Au
Contact surface material  Contact carrier material	PA
Material for screw connection	Zinc die-cast, nickel-plated
Conductor material	Bare Cu litz wires
	Date Gu IIIZ Wiles
Electrical properties	
Rated voltage in acc. with IEC 61076-2-101	630 V
Rated surge voltage	6 kV AC
	6 kV AC
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	630 V
Nominal current I <sub>N</sub>	12 A



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Pin	est voltage	6 kV
tronnection method  Individual wires  Pin  Pin  Individual wires  Individual wires  Pin  Individual wires  Individual	ection data	
Connection method	nductor connection	
Pin		Individual wires
1.31 mm²		
1.3 Nm   1		
1.3 Nm  nanical properties  chanical data Insertion/withdrawal cycles  > 100  nector  nection 1  Head design Plug Head thread type M12 Coding S power  e/line  Cable length 1 Cable length 1 Cable type UL/cUL stranded hook-up wire Signal type/category Power  Wire diameter incl. insulation 2.2 mm  Single wire, color black 1, black 2, black 3, green/yellow Conductor material Bare Cu litz wires  AWG signal line 16  Material wire insulation mPPE  Halogen-free yes  Flame resistance in acc. to UL 1581 VW1  Ambient temperature (operation) -40 °C 105 °C (cable, fixed installation)		
chanical data  nsertion/withdrawal cycles  > 100  nector  nnection 1  Head design Head thread type Coding Spower  E/line  Cable length 1 Cable type Signal type/category Wire diameter incl. insulation Single wire, color Conductor material AWG signal line Material wire insulation  Material wire insulation  mPPE Halogen-free Flame resistance Ambient temperature (operation)  > 100  100  M12  Spower  UL/cUL stranded hook-up wire  UL/cUL stranded hook-up wire  Bacculitz wires  Material wire insulation  mPPE  Halogen-free  in acc. to UL 1581 VW1  Ambient temperature (operation)  -40 °C 105 °C (cable, fixed installation)	riginening torque	
chanical data  nsertion/withdrawal cycles  > 100  nector  nnection 1  Head design Head thread type Coding Spower  E/line  Cable length 1 Cable type Signal type/category Wire diameter incl. insulation Single wire, color Conductor material AWG signal line Material wire insulation  Material wire insulation  mPPE Halogen-free Flame resistance Ambient temperature (operation)  > 100  100  M12  Spower  UL/cUL stranded hook-up wire  UL/cUL stranded hook-up wire  Bacculitz wires  Material wire insulation  mPPE  Halogen-free  in acc. to UL 1581 VW1  Ambient temperature (operation)  -40 °C 105 °C (cable, fixed installation)	hanical properties	
nection 1  Head design Plug Head thread type M12 Coding S power  E/line  Cable length 1 Cable type UL/cUL stranded hook-up wire Signal type/category Power  Wire diameter incl. insulation 2.2 mm Single wire, color black 1, black 2, black 3, green/yellow Conductor material Bare Cu litz wires  AWG signal line 16 Material wire insulation mPPE Halogen-free yes Hame resistance in acc. to UL 1581 VW1 Ambient temperature (operation) -40 °C 105 °C (cable, fixed installation)	echanical data	
nection 1  Head design Plug Head thread type M12 Coding S power  E/line  Cable length 1 Cable type UL/cUL stranded hook-up wire Signal type/category Power  Wire diameter incl. insulation 2.2 mm Single wire, color black 1, black 2, black 3, green/yellow Conductor material Bare Cu litz wires  AWG signal line 16 Material wire insulation mPPE Halogen-free yes Hame resistance in acc. to UL 1581 VW1 Ambient temperature (operation) -40 °C 105 °C (cable, fixed installation)	Insertion/withdrawal cycles	> 100
Innection 1 Inlead design Plug Inlead thread type M12 Coding S power  Inlead design M12 Coding S power  Inlead thread type  Coding S power  Inlead design M12 Coding S power  In		
Head thread type  M12 Coding S power  E/line  Cable length 1 Cable type UL/cUL stranded hook-up wire Signal type/category Power  Wire diameter incl. insulation Single wire, color Conductor material AWG signal line Material wire insulation  Material wir	nector	
Head thread type Coding S power  E/line Cable length 1 Cable type UL/cUL stranded hook-up wire Signal type/category Power Wire diameter incl. insulation 2.2 mm Single wire, color black 1, black 2, black 3, green/yellow Conductor material Bare Cu litz wires  AWG signal line 16 Material wire insulation mPPE Halogen-free yes Flame resistance in acc. to UL 1581 VW1 Ambient temperature (operation)  M12  M12  M12  M12  M12  M12  M12  M1	onnection 1	
Head thread type Coding S power  E/line Cable length 1 Cable type UL/cUL stranded hook-up wire Signal type/category Power Wire diameter incl. insulation 2.2 mm Single wire, color black 1, black 2, black 3, green/yellow Conductor material Bare Cu litz wires  AWG signal line 16 Material wire insulation mPPE Halogen-free yes Flame resistance in acc. to UL 1581 VW1 Ambient temperature (operation)  M12  M12  M12  M12  M12  M12  M12  M1	Head design	Plug
Coding  E/line  Cable length  Cable type  UL/cUL stranded hook-up wire  Signal type/category  Power  Wire diameter incl. insulation  Single wire, color  Conductor material  AWG signal line  Material wire insulation  Ambient temperature (operation)  S power  UL/cUL stranded hook-up wire  10  Loud Litz stranded hook-up wire  Litz stranded hook-up		
e/line  Cable length  1 Cable type  UL/cUL stranded hook-up wire  Signal type/category  Power  Wire diameter incl. insulation  Single wire, color  black 1, black 2, black 3, green/yellow  Conductor material  Bare Cu litz wires  AWG signal line  16 Material wire insulation  mPPE  Halogen-free  yes  Flame resistance  in acc. to UL 1581 VW1  Ambient temperature (operation)  -40 °C 105 °C (cable, fixed installation)	Coding	S power
Cable length  Cable type  UL/cUL stranded hook-up wire  Power  Wire diameter incl. insulation  Single wire, color  Conductor material  Award signal line  Halogen-free  Flame resistance  Ambient temperature (operation)  UL/cUL stranded hook-up wire  Ambient temperature (operation)  1  1  1  1  1  1  1  1  1  1  1  1  1		
Cable type  Signal type/category  Power  Wire diameter incl. insulation  Single wire, color  Dlack 1, black 2, black 3, green/yellow  Conductor material  Bare Cu litz wires  AWG signal line  Material wire insulation  mPPE  Halogen-free  yes  Flame resistance  in acc. to UL 1581 VW1  Ambient temperature (operation)  UL/cUL stranded hook-up wire  Duck 1, black 2, black 3, green/yellow  Bare Cu litz wires  16  mPPE  yes  Flame resistance  in acc. to UL 1581 VW1  -40 °C 105 °C (cable, fixed installation)	le/line	
Signal type/category  Wire diameter incl. insulation  2.2 mm  Single wire, color  Conductor material  AWG signal line  Material wire insulation  Halogen-free  Flame resistance  Ambient temperature (operation)  Power  2.2 mm  black 1, black 2, black 3, green/yellow  Bare Cu litz wires  16  mPPE  yes  in acc. to UL 1581 VW1  -40 °C 105 °C (cable, fixed installation)	Cable length	1
Wire diameter incl. insulation  2.2 mm  Single wire, color  black 1, black 2, black 3, green/yellow  Bare Cu litz wires  AWG signal line  16  Material wire insulation  MPPE  Halogen-free  yes  Flame resistance  in acc. to UL 1581 VW1  Ambient temperature (operation)  2.2 mm  black 1, black 2, black 3, green/yellow  Bare Cu litz wires  16  MPPE  yes  In acc. to UL 1581 VW1  -40 °C 105 °C (cable, fixed installation)	Cable type	UL/cUL stranded hook-up wire
Single wire, color  Conductor material  AWG signal line  Material wire insulation  Halogen-free  Flame resistance  Ambient temperature (operation)  black 1, black 2, black 3, green/yellow  Bare Cu litz wires  16  mPPE  yes  in acc. to UL 1581 VW1  -40 °C 105 °C (cable, fixed installation)	Signal type/category	Power
Conductor material  Bare Cu litz wires  AWG signal line  16  Material wire insulation  MPPE  Halogen-free  yes  Flame resistance  in acc. to UL 1581 VW1  Ambient temperature (operation)  Bare Cu litz wires  16  MPPE  -40 °C 105 °C (cable, fixed installation)	Wire diameter incl. insulation	2.2 mm
AWG signal line  Material wire insulation  Halogen-free  Flame resistance  Ambient temperature (operation)  16  mPPE  yes  in acc. to UL 1581 VW1  -40 °C 105 °C (cable, fixed installation)	Single wire, color	black 1, black 2, black 3, green/yellow
Material wire insulation mPPE Halogen-free yes Flame resistance in acc. to UL 1581 VW1 Ambient temperature (operation) -40 °C 105 °C (cable, fixed installation)	Conductor material	Bare Cu litz wires
Halogen-free yes Flame resistance in acc. to UL 1581 VW1 Ambient temperature (operation) -40 °C 105 °C (cable, fixed installation)	AWG signal line	16
Flame resistance in acc. to UL 1581 VW1  Ambient temperature (operation) -40 °C 105 °C (cable, fixed installation)	Material wire insulation	mPPE
Ambient temperature (operation) -40 °C 105 °C (cable, fixed installation)	Halogen-free	yes
	Flame resistance	
20 °C 105 °C (Cable flexible installation)	Ambient temperature (operation)	
-20 C 103 C (Cable, llexible installation)		-20 °C 105 °C (Cable, flexible installation)
Conmental and real-life conditions	TOTILITETILAT ATTO TEAT-IITE COTTUILIOTIS	
ronmental and real-life conditions	nbient conditions	
	Degree of protection	IP67
bient conditions		
bient conditions		IP65/IP67
bient conditions  Degree of protection  IP67  IP65/IP67	Ambient temperature (operation)	

-40 °C ... 105 °C (cable, fixed installation)



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### Standards and regulations

Flame resistance	in acc. to UL 1581 VW1
M12	
Standard designation	M12 connector
Standards/specifications	based on IEC 61076-2-111
Note	In line with

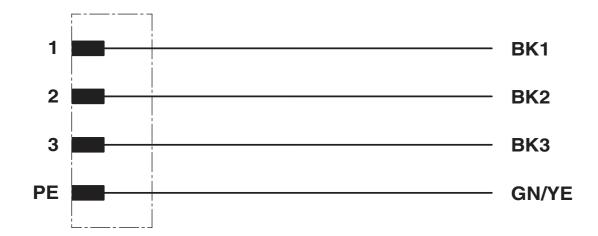


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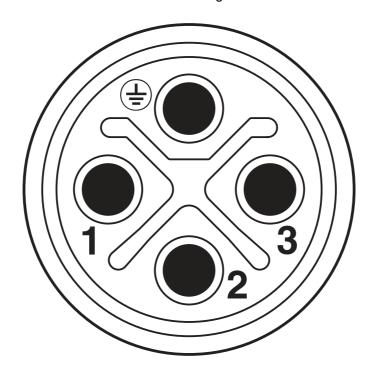
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### Drawings

### Circuit diagram



### Schematic diagram



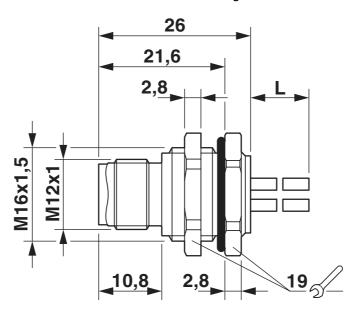
Connector pin assignment of M12 plug, 4-pos., S-coded, view of pin side



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### Dimensional drawing



Dimensional drawing



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### Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1108623



<b>.71</b>	<b>cUL Recognized</b> Approval ID: E468743-2	0190917			
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		600 V	12 A	- 16	-

<b>71</b>	UL Recognized Approval ID: E468743-20	0190917			
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		600 V	12 A	- 16	-

cULus Recognized



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### Classifications

#### **ECLASS**

	ECLASS-11.0	27440102		
	ECLASS-12.0	27440116		
	ECLASS-13.0	27440116		
ETIM				
	•••			
	ETIM 8.0	EC002635		
LIN	UNSPSC			
Ul	13730			
	UNSPSC 21.0	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

PROT-M12 FS - Sealing cap

1560251

https://www.phoenixcontact.com/us/products/1560251



M12 sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

#### PROT-M12 FS-M - Sealing cap

1430488

https://www.phoenixcontact.com/us/products/1430488



M12 metal sealing cap for unoccupied M12 plugs of the sensor/actuator cable, flush-type plugs and I/O devices in the field

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