

SAC-5P- 3,0-PUR/M12FRK PE - Power cable



1414784

<https://www.phoenixcontact.com/us/products/1414784>

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Power cable, 5-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket angled M12, coding: K, cable length: 3 m, for AC current up to 16 A/690 V, PE connection with Advanced Shielding Technology

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Protection against mismatching, thanks to special K-coding
- Our standard: robust halogen-free PUR cable

Commercial data

Item number	1414784
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF05
Product key	AF1CDQ
GTIN	4055626034188
Weight per piece (including packing)	572.82 g
Weight per piece (excluding packing)	572.82 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Power cable
Application	Energy supply
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	K

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	V0
Material of grip body	PP
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA
Material for screw connection	Zinc die-cast, nickel-plated

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	690 V AC
Nominal current I_N	16 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Connector

Connection 1

Type	free cable end
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Connection 2

Type	Socket angled M12
Coding type	K (Power)

Cable/line

Cable length	3 m
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PUR halogen-free black [PUR]

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Dimensional drawing			
Cable weight	189 kg/km		
UL AWM Style	22078 / 11560 (90 °C / 1000 V)		
Number of positions	5		
Shielded	no		
Cable type	PUR halogen-free black [PUR]		
Conductor structure, voltage supply	141x 0.15 mm		
AWG power supply	14		
Conductor cross section	5x 2.5 mm²		
Wire diameter incl. insulation	2.8 mm ±0.1 mm		
External cable diameter	9.70 mm ±0.3 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	black 1, black 2, black 3, black 4, green/yellow		
Thickness, insulation	≥ 0.36 mm		
Thickness, outer sheath	approx. 1.15 mm		
Max. conductor resistance	≤ 8 Ω/km (at 20 °C)		
Insulation resistance	≥ 1 GΩ*km (at 20 °C)		
Nominal voltage, cable	≤ 1000 V AC		
Test voltage	≥ 10000 V AC (Spark test)		
Minimum bending radius, fixed installation	5 x D		
Minimum bending radius, flexible installation	10 x D		
Smallest bending radius, fixed installation	49 mm		
Smallest bending radius, movable installation	97 mm		
Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s²		
Halogen-free	in accordance with DIN VDE 0472 part 815		
	in accordance with DIN EN 50267-2-1		
Flame resistance	According to UL 758/1581 (Cable Flame)		
	according to UL 758/1581 FT1		
	According to DIN EN 60332-1-2		
Resistance to oil	according to DIN EN 60811-404, 168 h at 100 °C		
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10		
	Low adhesion		

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Ambient temperature (operation)	abrasion-resistant
	Resistant to salt water
	-50 °C ... 90 °C (cable, fixed installation)
	-30 °C ... 90 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

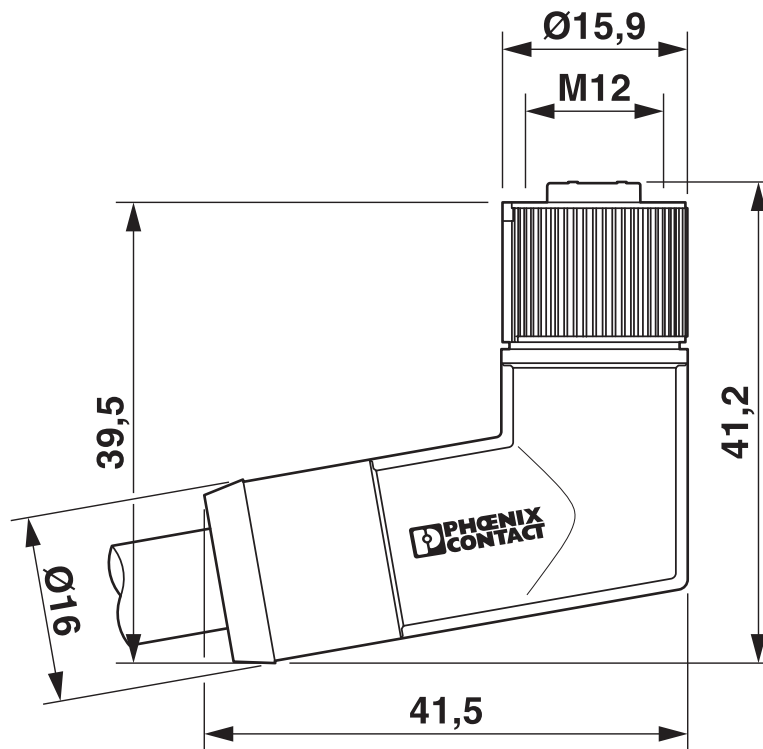
Degree of protection	IP65
	IP67 (without preloading, as additional test in accordance with IEC 60529)
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (Plug / socket)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-111

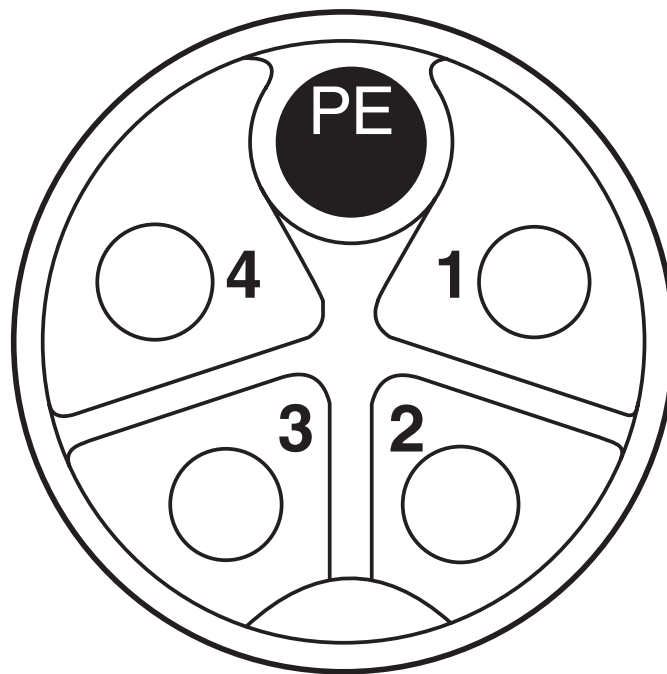
Drawings

Dimensional drawing



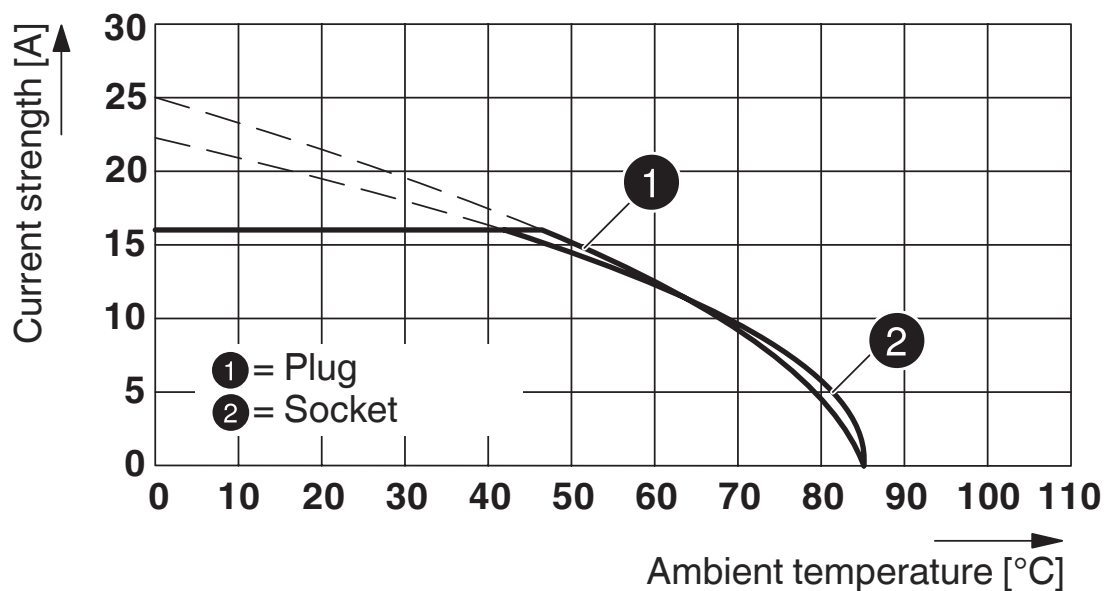
M12 x 1 socket, angled

Schematic diagram



Pin assignment of M12 socket, 5-pos., K-coded, socket side view

Diagram



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Circuit diagram



Contact assignment of the M12 socket

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Approvals

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 UL Listed Approval ID: E468743				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine				
	600 V	16 A	- 14	- 14

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	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine				
	600 V	16 A	- 14	-

 EAC-RoHS Approval ID: RU D-DE.HB35.B.00387				
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Classifications

ECLASS

ECLASS-13.0	27060327
ECLASS-15.0	27060327

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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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%
EF3.0 Climate Change	
CO2e kg	4.721 kg CO2e

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com