

1425084
<https://www.phoenixcontact.com/us/products/1425084>

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Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: L, on Socket straight M12, coding: L, cable length: 3 m, for direct current up to 16 A/63 V

Your advantages

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

Commercial data

Item number	1425084
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF05
Product key	AF1CCR
GTIN	4055626384221
Weight per piece (including packing)	465.4 g
Weight per piece (excluding packing)	465 g
Customs tariff number	85444290
Country of origin	PL

SAC-4P-M12MSL/3,0-PUR/FSL - Power cable



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Technical data

Product properties

Product type	Power cable
Application	Energy supply
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	L

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	63 V DC
Nominal current I_N	16 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Connector

Connection 1

Type	Plug straight M12
Coding type	L (Power)

Connection 2

Type	Socket straight M12
Coding type	L (Power)

Cable/line

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

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Dimensional drawing	
Cable weight	132 kg/km
Number of positions	4
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure, voltage supply	80x 0.20 mm
AWG power supply	14
Conductor cross section	4x 2.5 mm²
Wire diameter incl. insulation	2.65 mm ±0.1 mm
External cable diameter	7.90 mm ±0.25 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, blue, black
Thickness, insulation	≥ 0.31 mm
Thickness, outer sheath	approx. 0.70 mm
Max. conductor resistance	≤ 8 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)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	40 mm
Smallest bending radius, movable installation	79 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: 500000, Torsional frequency: 35 cycles/min.
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 758/1581/2556 (horizontal, FT2) According to DIN EN 60332-2-2 (20 s)
Resistance to oil	according to DIN EN 60811-404, 168 h at 100 °C Hydrolysis and microbe resistant as per VDE 0282 section 10

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Other resistance	Low adhesion
	abrasion-resistant
	Resistant to salt water
Ambient temperature (operation)	-50 °C ... 80 °C (cable, fixed installation)
	-30 °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 ... 85 °C (Plug / socket)

Standards and regulations

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

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Drawings

Dimensional drawing



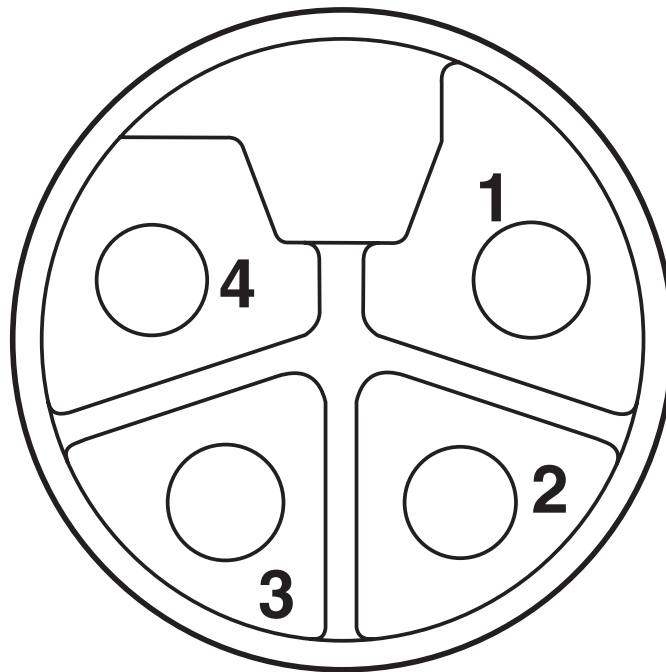
Plug, M12 x 1, straight, shielded

Dimensional drawing



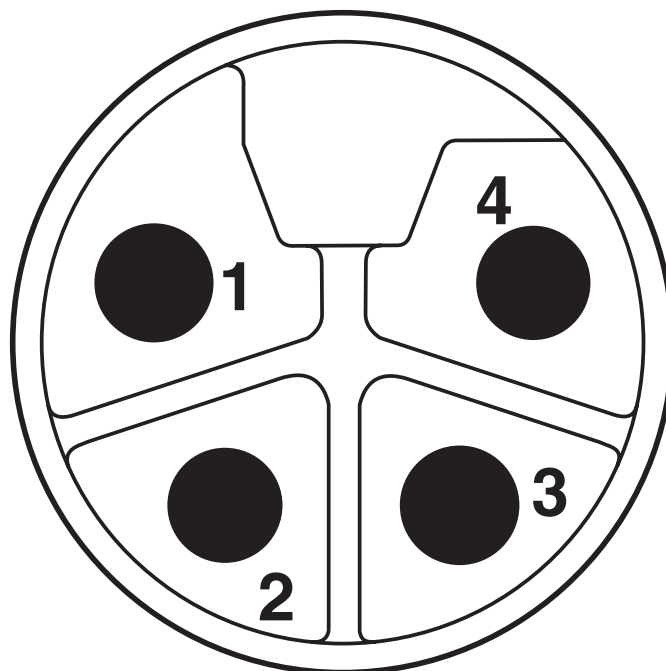
M12 x 1 socket, straight

Schematic diagram



Pin assignment of M12 socket, 4-pos.

Schematic diagram



Pin assignment M12 male connector, 4-pos.

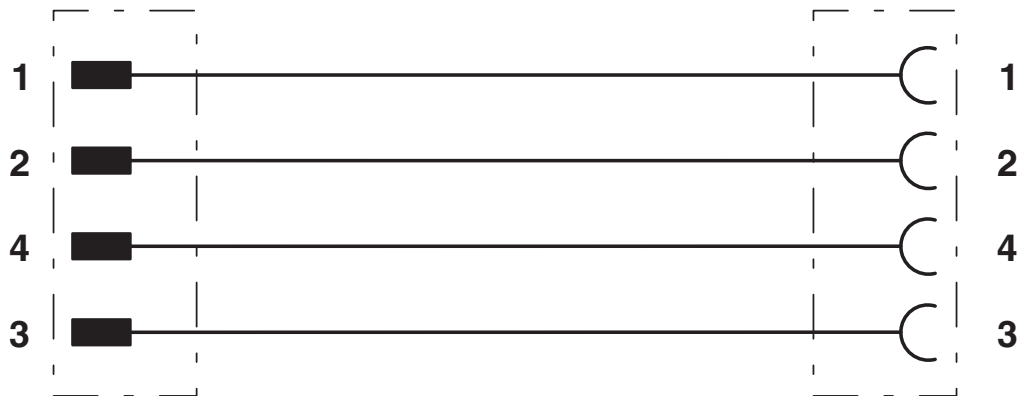
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Circuit diagram



Contact assignment of M12 connector/socket

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Approvals

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UL Listed

Approval ID: E468743



cUL Listed

Approval ID: E468743



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	6.591 kg CO2e