

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Power cable, 4-position, Variable cable type, Plug straight M12, coding: L, on Socket straight M12, coding: L, cable length: Free input (0.2 ... 40.0 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

Commercial data

Item number	1276560
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF17
Product key	AF1CCR
Customs tariff number	85444290
Country of origin	PL

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

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	12 A (1.5 mm ²)
	16 A (2.5 mm ²)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
-----------------------------	------------

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	Free input (0.2 ... 40.0 m)
--------------	-----------------------------

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

PUR halogen-free black [PUR]

Cable weight	132 kg/km
Number of positions	4
Shielded	no
Cable type	PUR halogen-free black [PUR] PUR halogen-free black PUR
Conductor structure, voltage supply	80x 0.20 mm
AWG power supply	14
Conductor cross-section	4x 2.5 mm ²
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/s ²
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
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10 Low adhesion abrasion-resistant Resistant to salt water
Ambient temperature (operation)	-50 °C ... 85 °C (cable, fixed installation) -30 °C ... 85 °C (Cable, flexible installation)

PUR halogen-free black [105]

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

Cable weight	83 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PUR halogen-free black [105] PUR halogen-free black 105
Conductor structure, voltage supply	44x 0.20 mm
AWG power supply	16
Conductor cross-section	4x 1.5 mm ²
Wire diameter incl. insulation	2.2 mm ±0.05 mm
External cable diameter	6.75 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, blue, black
Thickness, insulation	≥ 0.26 mm
Thickness, outer sheath	approx. 0.70 mm
Overall twist	4 wires, twisted
Max. conductor resistance	≤ 14.1 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	34 mm
Smallest bending radius, movable installation	68 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/s ²
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) in accordance with UL 758/1581 FT2 according to DIN EN 60332-2-2
Resistance to oil	according to DIN EN 60811-404, 168 h at 100 °C according to UL 758, 168 h at 60 °C
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10 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)

PVC 1.5 mm² black [110]

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

Cable weight	108 kg/km
UL AWM Style	20233 / 10493 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PVC 1.5 mm ² black [110] PVC 1.5 mm ² black 110
Conductor structure, voltage supply	78x 0.15 mm
AWG power supply	16
Conductor cross-section	4x 1.5 mm ²
Wire diameter incl. insulation	2.35 mm ±0.05 mm
External cable diameter	7.55 mm ±0.25 mm
Outer sheath, material	PVC
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.25 mm
Thickness, outer sheath	approx. 1.30 mm
Max. conductor resistance	≤ 13 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	38 mm
Smallest bending radius, movable installation	76 mm
Dynamic load capacity (bending)	Max. bending cycles: 2000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
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 60 °C
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -20 °C ... 80 °C (Cable, flexible installation)

PVC black [PVC]

Cable weight	168 kg/km
UL AWM Style	20233 / 10493 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PVC black [PVC] PVC black PVC
Conductor structure, voltage supply	141x 0.15 mm
AWG power supply	14

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

Conductor cross-section	4x 2.5 mm ²
Wire diameter incl. insulation	3 mm ±0.1 mm
External cable diameter	9.50 mm ±0.3 mm
Outer sheath, material	PVC
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.36 mm
Thickness, outer sheath	approx. 0.76 mm
Max. conductor resistance	≤ 8 Ω/km (at 20 °C)
Insulation resistance	≥ 100 MΩ*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	48 mm
Smallest bending radius, movable installation	95 mm
Dynamic load capacity (bending)	Max. bending cycles: 2000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
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 60 °C
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °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

SAC-4P-M12MSL-M12FSL/.../... - Power cable

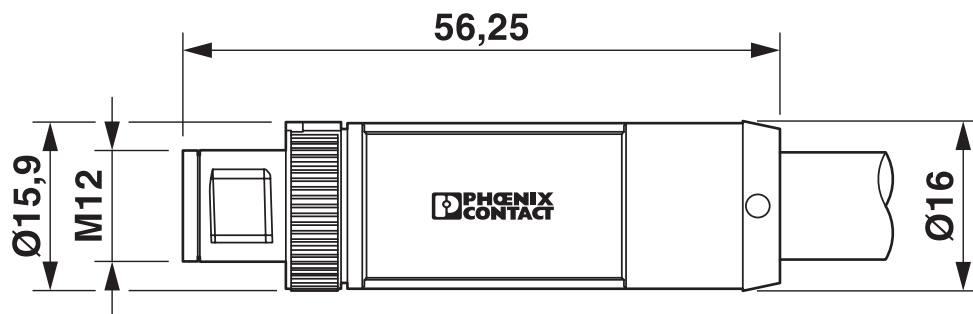


1276560

<https://www.phoenixcontact.com/us/products/1276560>

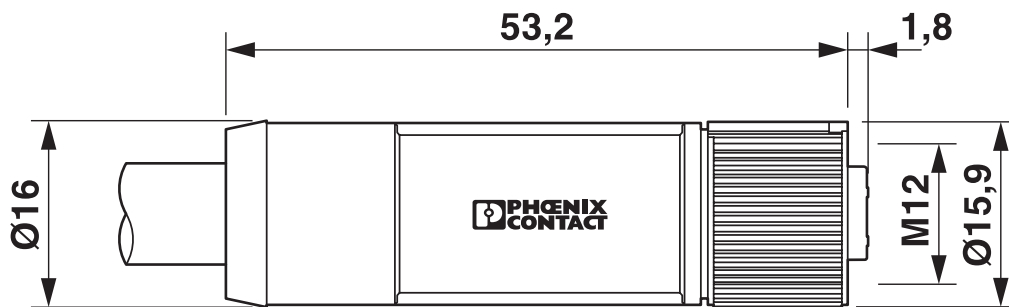
Drawings

Dimensional drawing



Plug, M12 x 1, straight

Dimensional drawing

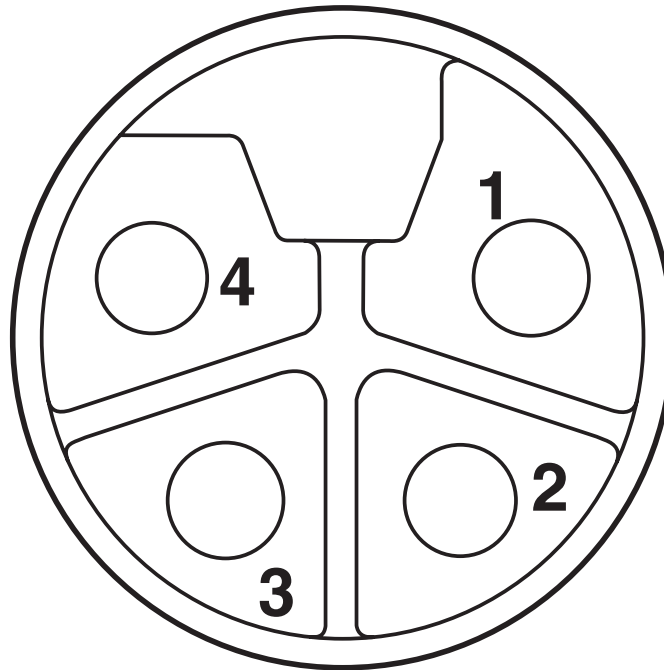


M12 x 1 socket, straight

1276560

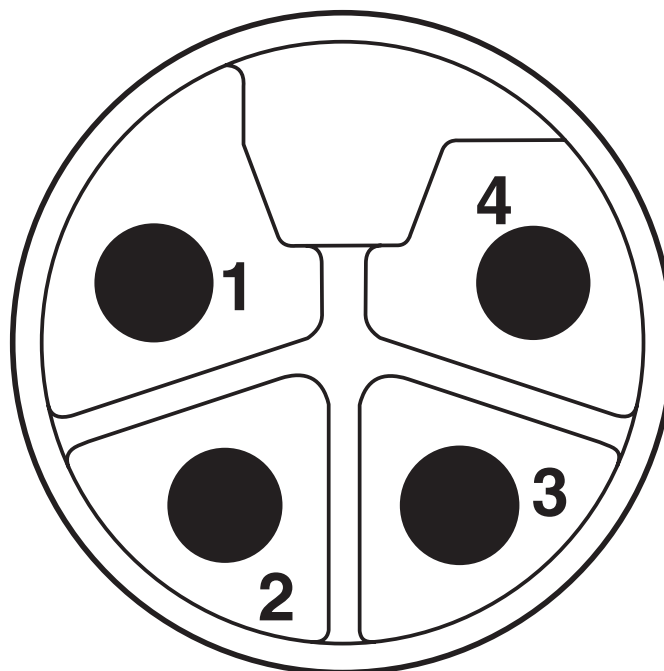
<https://www.phoenixcontact.com/us/products/1276560>

Schematic diagram



Pin assignment of M12 socket, 4-pos.

Schematic diagram



Pin assignment M12 male connector, 4-pos.

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

Circuit diagram



Contact assignment of M12 connector/socket

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1276560>



UL Listed

Approval ID: E468743



cUL Listed

Approval ID: E468743

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

Classifications

ECLASS

ECLASS-13.0	27060327
ECLASS-15.0	27060327

ETIM

ETIM 10.0	EC001855
-----------	----------

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

SAC-4P-M12MSL-M12FSL/.../... - Power cable



1276560

<https://www.phoenixcontact.com/us/products/1276560>

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%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

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