

1408815

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Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: T, on free cable end, cable length: 10 m, For direct current up to 12 A/63 $\rm V$

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- · Protection against incorrect connection using special T-coding
- · Our standard: robust halogen-free PUR cable

Commercial data

Item number	1408815
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF05
Product key	BF1CCQ
Catalog page	Page 185 (C-6-2019)
GTIN	4046356838993
Weight per piece (including packing)	1,035.9 g
Weight per piece (excluding packing)	1,037.4 g
Customs tariff number	85444290
Country of origin	PL



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Technical data

Product properties

Product type	Power cable
Application	Power supply
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	Т
Insulation characteristics	
Overvoltage category	III
Degree of pollution	3
Overvoltage category	

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	≥ 100 MΩ
Nominal voltage U _N	63 V DC
Nominal current I _N	12 A

Mechanical properties

Mecl	าลท่	cal	data

Insertion/withdrawal cycles	> 100

Connector

Connection 1

Туре	Plug straight M12
Coding type	T (Power)

Connection 2

Туре	free cable end

Cable/line

Cable length	10 m	
PUR halogen-free black [PUR]		



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Dimensional drawing	
Cable weight	109 kg/km
UL AWM Style	20233 / 10493 (80°C/300 V)
Number of positions	4
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor cross section	4x 1.5 mm²
Wire diameter incl. insulation	2.35 mm ±0.05 mm
External cable diameter	8.40 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	≥ 0.25 mm
Thickness, outer sheath	approx. 1.30 mm
Overall twist	4 wires, twisted
Length of twist, overall twist	90 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	42 mm
Smallest bending radius, movable installation	84 mm
Max. bending cycles	4000000
Minimum bending radius, drag chain applications	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 60811-2-1, 168 h at 100°C



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	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)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)

Standards and regulations

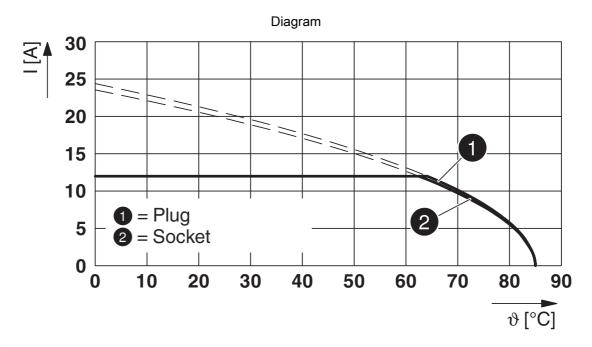
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-111



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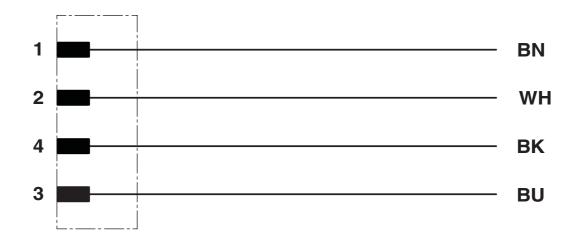
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Drawings



Base curve

Circuit diagram



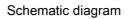


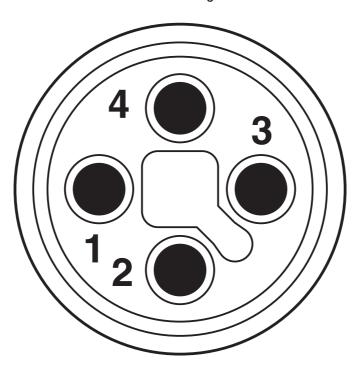
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Dimensional drawing 56,25 Price NIX OFFICE NIX OFF

Plug, M12 x 1, straight





Pin assignment for M12 plug, 4-pos., T-coded, view of plug side



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1408815

<u>®</u>	UL Listed Approval ID: E468743				
		Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
		63 V	12 A	-	- 16

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		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		63 V	12 A	- 16	-

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

cULus Listed



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Classifications

UNSPSC 21.0

ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060327
ETIM	
ETIM 9.0	EC001855
UNSPSC	

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%



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Accessories

UCT-WMT (23X4) - Conductor marker

0801453

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Conductor marker, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 30

UC-WMT (23X4) - Conductor marker

0819411

https://www.phoenixcontact.com/us/products/0819411



Conductor marker, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23×4 mm, Number of individual labels: 24



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US-WMT (23X4) - Cable marker

0828769

https://www.phoenixcontact.com/us/products/0828769



Cable marker, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 56

WMTW (23X4)R - Cable marker

0831004

https://www.phoenixcontact.com/us/products/0831004



Cable marker, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 3000



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PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

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 $\ensuremath{\mathsf{M12}}$ sealing cap made of plastic with fixing band, for sensor cables, for free $\ensuremath{\mathsf{M12}}$ plugs



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



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WP-EC TPE HF 13,0 BK - Transition sleeve from hose to cable

3240975

https://www.phoenixcontact.com/us/products/3240975



Transition sleeve from hose to cable, material: TPE, color: black, flammability rating in acc. with UL 94: HB

WP-PA HF 13,0 BK - Protective hose

3240681

https://www.phoenixcontact.com/us/products/3240681



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m



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WP-PA HF-HB 13,0 BK - Protective hose

3240839

https://www.phoenixcontact.com/us/products/3240839



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

SAC BIT M12-D16 - Tool

1200305

https://www.phoenixcontact.com/us/products/1200305



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, knurl diameter: 16 mm, for 4 mm hexagonal drive



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TSD 04 SAC - Torque screwdriver

1208429

https://www.phoenixcontact.com/us/products/1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

TSD-M 1,2NM - Torque screwdriver

1212224

https://www.phoenixcontact.com/us/products/1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0. 3 - 1.2 Nm



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TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

https://www.phoenixcontact.com/us/products/1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

B-STIFT - Marker pen

1051993

https://www.phoenixcontact.com/us/products/1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm



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CUTFOX-S VDE - Diagonal cutter

1212207

https://www.phoenixcontact.com/us/products/1212207



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested $\,$

WIREFOX-D 16 - Stripping tool

1212173

https://www.phoenixcontact.com/us/products/1212173



Stripping tool, for stripping lines (specially for fiber optics lines) of \varnothing 4 - 16 mm



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WIREFOX-D 40 - Stripping tool

1212161

https://www.phoenixcontact.com/us/products/1212161



Stripping tool, for stripping cables of 4.5 mm - 40 mm-Ø, insulation thickness of up to 4.5 mm, pivoting blade for round, lengthwise, and spiral cuts

WIREFOX 10 - Stripping tool

1212150

https://www.phoenixcontact.com/us/products/1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

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