

1197331

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Sensor/actuator box, application: Standard, connection method: M8 socket Metal, number of slots: 8, number of positions: 3, coding: A, slot assignment: single, status display: Yes, pnp; master cable connection: Fixed connection 180°, PUR/PVC, cable length: 3 m, shielding: no

## Your advantages

- · Safety in the field, thanks to molded housing and high degree of protection
- · Convenient: increased machine availability thanks to quick and easy diagnostics

#### Commercial data

Item number	1197331
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF40
Product key	BF3BCA
GTIN	4063151255770
Weight per piece (including packing)	425 g
Weight per piece (excluding packing)	412.3 g
Customs tariff number	85444290
Country of origin	DE



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# Technical data

#### Notes

General	NOTE: Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties.
General	Unused slots are to be sealed off prior to commissioning. Suitable sealing elements are to be found under "Accessories".

# Product properties

Product type	Distributor boxes with M8 to M12 slots
Number of positions	3
Application	Standard
Number of slots	8
Coding	A
LED	yes

## Material specifications

Material	Cu alloy
	PBT
	PUR
Seal material O-ring	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PBT

## **Dimensions**

Dimensional drawing	129.5 101 04.2 04.2 04.2 04.2 04.2
Width	30 mm
Height	20 mm
Length	129.5 mm

#### Connection data

#### Conductor connection

Connection method	Fixed connection
Tightening torque slot sensor/actuator cable	0.2 Nm



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#### Pin assignment

Slot/position = Wire color or connection	1 / 4 (A) = WH
	2 / 4 (A) = GN
	3 / 4 (A) = YE
	4 / 4 (A) = GY
	5 / 4 (A) = PK
	6 / 4 (A) = RD
	7 / 4 (A) = BK
	8 / 4 (A) = VT
	1-8 / 1 (+ 24 V) = BN
	1-8 / 3 (0 V) = BU

# Signaling

Status display present	Yes

## Electrical properties

Max. operating voltage U <sub>max</sub>	30 V DC
Local diagnostics	Supply voltage Green LED
	Status display I/O Yellow LED
Nominal voltage U <sub>N</sub>	24 V DC
Rated current, total	6 A
Max. current carrying capacity per path	2 A
Current carrying capacity per slot	2 A

## Cable/line

Cable length	3 m
·	

## PUR/PVC black [PUR]

Dimensional drawing



Cable weight	92 kg/km
UL AWM Style	20549
Number of positions	10
Shielded	no
Cable type	PUR/PVC black [PUR]
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross section	8x 0.34 mm² (Signal line)



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	2x 0.75 mm² (power line)
Wire diameter incl. insulation	1.3 mm ±0.1 mm (Signal line)
	1.8 mm ±0.1 mm (power line)
External cable diameter	7.9 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, blue, white, green, yellow, gray, pink, red, black, violet
Inner sheath thickness	≥ 0.15 mm
Thickness, outer sheath	≥ 0.38 mm
Overall twist	Wires twisted in layers
Nominal voltage, cable	300 V
Test voltage	2000 V
Minimum bending radius, fixed installation	7.5 x D
Minimum bending radius, flexible installation	10 x D
Max. bending cycles	1500000
Flame resistance	DIN EN 50265
Resistance to oil	according to VDE 0472 Part 803
Other resistance	Highly resistant to acids, alkaline solutions and solvents
Special properties	Silicone-free
Ambient temperature (operation)	-40 °C 90 °C (cable, fixed installation)
	-5 °C 80 °C (Cable, flexible installation)
	80 °C (in acc. with UL)

## Standards and regulations

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

## Environmental and real-life conditions

#### Ambient conditions

Degree of protection	IP67
Ambient temperature (operation)	-25 °C 80 °C

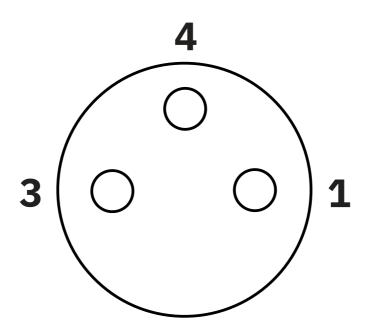


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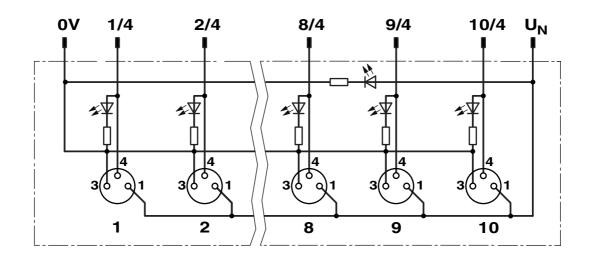
# Drawings





M8 slot, socket, 3-pos.

Circuit diagram

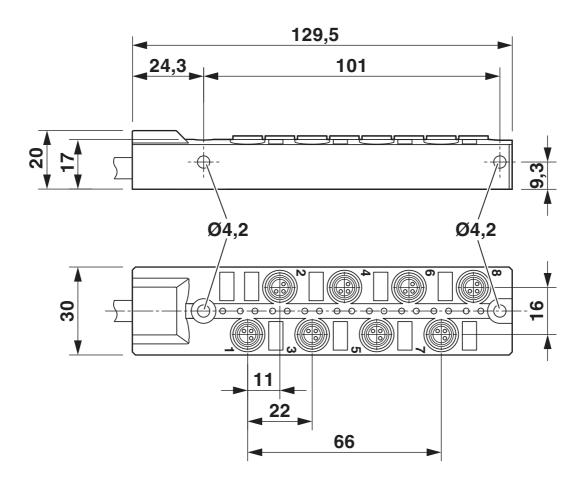




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# Dimensional drawing





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# **Approvals**

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1197331



**cUL Recognized**Approval ID: E238705



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<b>7.1</b>	SU UL Recognized Approval ID: FILE E 118976				
		Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		24 V	-	-	-

<b>.F.</b> L	cUL Recognized Approval ID: FILE E 118976				
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# Classifications

## **ECLASS**

	ECLASS-11.0	27440108
	ECLASS-12.0	27440108
	ECLASS-13.0	27440108
ETIM		
	ETIM 8.0	EC002585
UNSPSC		
	UNSPSC 21.0	31251500



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# Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e	
	No hazardous substances above threshold values	



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### Accessories

#### UCT-TM 6 - Marker for terminal blocks

0828736

https://www.phoenixcontact.com/us/products/0828736



Marker for terminal blocks, 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: snapped, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

## PROT-M8 - Screw plug

1682540

https://www.phoenixcontact.com/us/products/1682540



An M8 screw plug for the unoccupied M8 sockets of the sensor/actuator cable, boxes and flush-type connectors  $\,$ 



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## TSD 02 SAC - Torque screwdriver

1208487

https://www.phoenixcontact.com/us/products/1208487



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

#### SAC BIT M8-D10 - Tool

1208461

https://www.phoenixcontact.com/us/products/1208461



Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 10 mm, for 4 mm hexagonal drive



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#### SACC BIT M8-D12 - Tool

1208474

https://www.phoenixcontact.com/us/products/1208474



Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 12 mm, for 4 mm hexagonal drive

## 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



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## WIREFOX-D 11 - Stripping tool

1212160

https://www.phoenixcontact.com/us/products/1212160



Stripping tool, for stripping multicore signal, control and fiberglass wires of Ø 2.5 - 11 mm. Insulation thickness up to 1 mm

## WIREFOX-D 13 - Stripping tool

1212162

https://www.phoenixcontact.com/us/products/1212162



Stripping tool, for stripping installation lines of Ø 8 - 13 mm , e.g. NYM 3 x 1.5  $\text{mm}^2$  to 5 x 2.5  $\text{mm}^2$ , single line stripping 0.2  $\text{mm}^2$  - 4  $\text{mm}^2$  , with longitudinal cut blade and sliding knife



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### WIREFOX-MP VDE - Stripping tool

1212528

https://www.phoenixcontact.com/us/products/1212528



Multifunction stripping tool, for removing the jacket from cables with a diameter of 8 to 13 mm, for stripping cables with a cross section of 0.2 to 10 mm<sup>2</sup>, with full-fledged diagonal cutter, VDE 1000 V AC/1500 V DC tested

#### WIREFOX 2,5 - Stripping tool

1212368

https://www.phoenixcontact.com/us/products/1212368



Stripping tool, for conductors and cables with a conductor cross section from 0. 08 to 2.5 mm, self-adjusting, stripping length adjustable up to 15 mm, cutting capacity up to 6 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid

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