

https://www.phoenixcontact.com/us/products/1097602

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Distributor box, application: Standard, connection method: M12 socket Plastic, number of slots: 4, number of positions: 5, coding: A, slot assignment: Double, status display: yes, PNP; master cable connection: Fixed connection 180°, PUR/PVC, cable length: 15 m, shielding: no

# Your advantages

- · Save time, thanks to installation with SPEEDCON fast locking system
- · Safety in the field, thanks to molded housing and high degree of protection
- · Flexible, distributed bundling of signals in one master cable
- · Convenient: increased machine availability thanks to quick and easy diagnostics
- · Save space: distributor box with double occupancy for two sensors in one slot

# Commercial data

Item number	1097602
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF41
Product key	AF3CBA
GTIN	4055626939551
Weight per piece (including packing)	2,163.8 g
Weight per piece (excluding packing)	2,043 g
Customs tariff number	85444290
Country of origin	DE

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# Technical data

### Notes

Assembly note	<b>NOTE:</b> Observe the permissible bending radii when routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream of the connector, e.g., by using cable ties.
Note on application	Unused slots are to be sealed off prior to commissioning. Suitable sealing elements are to be found under "Accessories".

## Product properties

Product type	Distributor box
Application	Standard
Number of positions	5
Number of slots	4
Coding	A
LED	yes

### System properties

Local diagnostics	
Monitored function	Supply voltage
Optical representation	Green LED

## **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	12 A
Max. current carrying capacity per path	2 A
Current carrying capacity per slot	4 A

### Connection data

Conductor connection	
Sensor/actuator connection system	M12 socket
Tightening torque slot sensor/actuator cable	0.4 Nm
Tightening torque of mounting screw for fixing the housing	0.5 Nm
Pin assignment	
Slot/position = Wire color or connection	1 / 4 (A) = WH
	1 / 2 (B) = GYPK

2 / 4 (A) = GN 2 / 2 (B) = RDBU 3 / 4 (A) = YE



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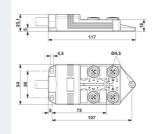
3 / 2 (B) = WHGN
4 / 4 (A) = GY
4 / 2 (B) = BNGN
1-4 / 1 (+ 24 V) = BN
1-4 / 3 (0 V) = BU
1-4 / 5 (PE) = GNYE

### Signaling

Status display present	yes

#### Dimensions

Dimensional drawing



Width	54 mm
Height	23 mm
Length	117 mm

### Material specifications

Material Threaded sleeve	PBT
Material Housing	PBT
Material Molding compound	PUR
Flammability rating according to UL 94	VO
Seal material O-ring	NBR
Contact material	Cu alloy
Contact surface material	gold-plated
Contact carrier material	PA

#### Cable/line

Cable length	15 m
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#### PUR/PVC black [PUR]

Dimensional drawing





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Cable weight	122 kg/km
UL AWM Style	20549
Number of positions	11
Shielded	no
Cable type	PUR/PVC black [PUR]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor structure, voltage supply	56x 0.15 mm
AWG power supply	17
Conductor cross section	8x 0.5 mm² (Signal line)
	3x 1 mm <sup>2</sup> (power line)
Wire diameter incl. insulation	1.5 mm ±0.1 mm (Signal line)
	2.1 mm ±0.1 mm (power line)
External cable diameter	8.70 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, green/yellow, white, green, yellow, gray, gray/pink, red/blue, white/green, brown/green
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
Smallest bending radius, fixed installation	66 mm
Smallest bending radius, movable installation	87 mm
Dynamic load capacity (bending)	Max. bending cycles: 1500000, Bending radius: 87 mm, Traversing path: 2 m, Traversing rate: 2 m/s
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)

### Environmental and real-life conditions

#### Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C 80 °C



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## Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

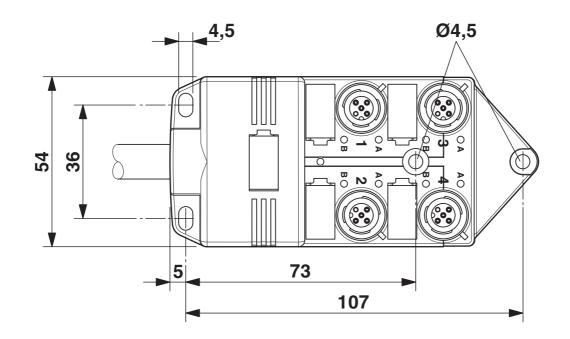


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# Drawings

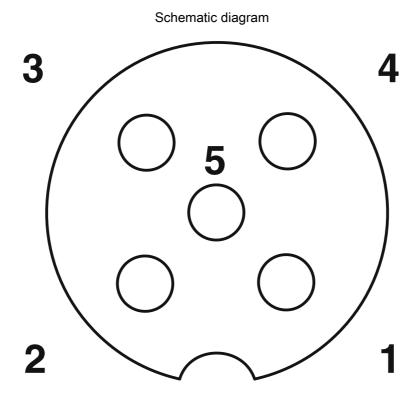
Dimensional drawing





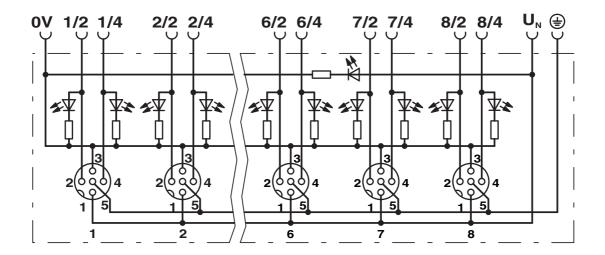
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M12 slot, socket, 5-pos.

Circuit diagram



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# Classifications

### ECLASS

ECLASS-11.0	27440108
ECLASS-12.0	27440108
ECLASS-13.0	27440108

### ETIM

	ETIM 9.0	EC002585		
UN	UNSPSC			
	UNSPSC 21.0	31251500		

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