

1401199

https://www.phoenixcontact.com/us/products/1401199

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Distributor box, application: Robots and drag chains, connection method: M12-SPEEDCON-socket Metal, number of slots: 8, number of positions: 5, coding: A, slot assignment: Double, status display: Yes, pnp; master cable connection: Fixed connection 180°, PUR, halogen free, highly flexible, highly flexible, cable length: 5 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
- · Save space: distributor box with double occupancy for two sensors in one slot
- · Save time, thanks to installation with SPEEDCON fast locking system

### Commercial data

Item number	1401199
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF42
Product key	BF3CCA
Catalog page	Page 167 (C-4-2013)
GTIN	4046356536110
Weight per piece (including packing)	1,313.6 g
Weight per piece (excluding packing)	1,269 g
Customs tariff number	85444290
Country of origin	DE



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### Technical data

### Notes

Assembly note	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.
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	Robots and drag chains
Number of positions	5
Number of slots	8
Coding	A

### Electrical properties

Max. operating voltage U <sub>max</sub>	30 V DC
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-SPEEDCON-socket
Tightening torque slot sensor/actuator cable	0.4 Nm
Tightening torque of mounting screw for fixing the housing	0.5 Nm

### Pin assignment

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
	3 / 2 (B) = WHGN
	4 / 4 (A) = GY
	4 / 2 (B) = BNGN
	5 / 4 (A) = PK
	5 / 2 (B) = WHYE
	6 / 4 (A) = RD
	6 / 2 (B) = YEBN
	7 / 4 (A) = BK



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	7 / 2 (B) = WHGY
	8 / 4 (A) = VT
	8 / 2 (B) = GYBN
	1-8 / 1 (+ 24 V) = BN
	1-8 / 3 (0 V) = BU
	1-8 / 5 (PE) = GNYE

### Signaling

Status display present	Yes
Otatas display present	103

### **Dimensions**

Dimensional drawing	153 153 153 153 153 153 153 153
Width	58 mm
Height	26 mm
Length	153 mm

### Material specifications

Material Threaded sleeve	Die-cast zinc
Material Housing	PBT
Material Molding compound	PUR
Flammability rating according to UL 94	V0
Seal material O-ring	NBR
Contact material	Cu alloy
Contact surface material	gold-plated
Contact carrier material	PA

### Cable/line

Cable length	5 m
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### PUR halogen-free, highly flexible [80MC]

Dimensional drawing



Number of positions	19



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Shielded	no
Cable type	PUR halogen-free, highly flexible [80MC]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross section	16x 0.5 mm² (Signal line)
	3x 1 mm² (power line)
External cable diameter	10.75 mm
Outer sheath, material	PUR
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, blue, green/yellow, white, green, yellow, gray, pink, red, black, violet, gray/pink, red/blue, white/green, brown/green, white/yellow, yellow/brown, white/gray, gray/brown
Overall twist	Wires twisted to an optimum in two layers
Max. conductor resistance	39 Ω/km (Signal line)
	19.5 Ω/m (power line)
Insulation resistance	≥ 10 MΩ*km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage	2000 V
Smallest bending radius, fixed installation	90 mm
Smallest bending radius, movable installation	120 mm
Max. bending cycles	5000000
Bending radius	120 mm
Traversing path	5 m
Traversing rate	3 m/s
Acceleration	5 m/s²
Torsion force	± 120 °/m
Torsion cycles	≥ 3000000
Halogen-free	The cable is halogen-free
Flame resistance	DIN EN 50265-2-1
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	somewhat resistant to welding sparks
Special properties	Silicone-free
	Free of substances which would hinder coating with paint or varnish
Ambient temperature (operation)	-30 °C 70 °C (cable, fixed installation)
	5 °C 70 °C (Cable, flexible installation)
	to 80 °C (in acc. with UL)

### Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67



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	IP69K
Ambient temperature (operation)	-30 °C 90 °C

### Standards and regulations

### M12

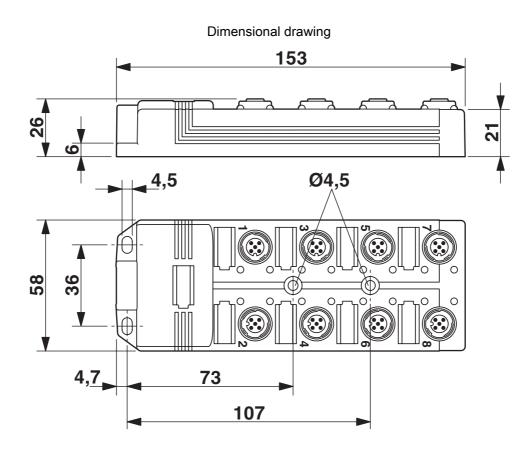
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101



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## Drawings

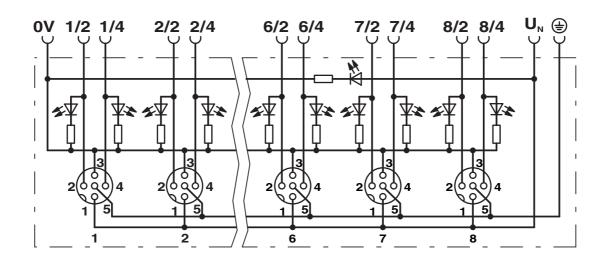


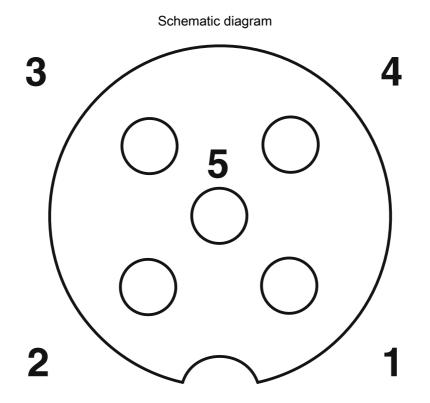


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### Circuit diagram







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## Classifications

UNSPSC 21.0

### **ECLASS**

ECLASS-11.0	27440108	
ECLASS-12.0	27440108	
ECLASS-13.0	27440108	
ETIM		
ETIM 9.0	EC002585	
UNSPSC		

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 hazardaus substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)

No substance above 0.1 wt%



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### Accessories

PROT-MS SCO - Screw plug

1553129

https://www.phoenixcontact.com/us/products/1553129



M12 screw plug with fast-locking system for unoccupied M12 female connectors of sensor/actuator cables, boxes, and flush-type connectors

### UC-EM (17,5X9) - Snap-in markers

0827490

https://www.phoenixcontact.com/us/products/0827490



Snap-in markers, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID, BLUEMARK ID COLOR, BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, lettering field size: 17. 5 x 9 mm, Number of individual labels: 20



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### UC-EM (17,5X9) CUS - Snap-in markers

0828238

https://www.phoenixcontact.com/us/products/0828238



Snap-in markers, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 17.  $5 \times 9$  mm, Number of individual labels: 20

### UCT-EM (17,5X9) - Snap-in markers

0801491

https://www.phoenixcontact.com/us/products/0801491



Snap-in markers, 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, lettering field size: 17.5 x 9 mm, Number of individual labels: 24



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### UCT-EM (17,5X9) CUS - Snap-in markers

0801575

https://www.phoenixcontact.com/us/products/0801575

UniCard sheet, for labeling devices from other manufacturers, for overview table see download area, labeled according to customer specifications



### UC-EM (17,5X9) YE - Snap-in markers

0827494

https://www.phoenixcontact.com/us/products/0827494



Snap-in markers, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, lettering field size: 17.5 x 9 mm, Number of individual labels: 20



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### UC-EM (17,5X9) YE CUS - Snap-in markers

0828239

https://www.phoenixcontact.com/us/products/0828239



Snap-in markers, can be ordered: by sheet, yellow, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 17.5 x 9 mm, Number of individual labels: 20

### UCT-EM (17,5X9) YE - Snap-in markers

0801492

https://www.phoenixcontact.com/us/products/0801492



Snap-in markers, Sheet, yellow, 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, lettering field size: 17. 5 x 9 mm, Number of individual labels: 24



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### UCT-EM (17,5X9) YE CUS - Snap-in markers

0801576

https://www.phoenixcontact.com/us/products/0801576

UniCard sheet, for labeling devices from other manufacturers, for overview table see download area, labeled according to customer specifications



### UTA 136 - DIN rail adapter

2853996

https://www.phoenixcontact.com/us/products/2853996

Universal DIN rail adapter, for screwing on switchgear





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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

### SAC BIT M12-D15 - Tool

1208432

https://www.phoenixcontact.com/us/products/1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive



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### SACC BIT M12-D20 - Tool

1208445

https://www.phoenixcontact.com/us/products/1208445

Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive  $\,$ 



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