

1452974

https://www.phoenixcontact.com/us/products/1452974

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Sensor/actuator box, application: Standard, connection method: M12-SPEEDCON-socket Plastic, number of slots: 8, number of positions: 5, coding: A, slot assignment: Double, status display: No, Universal; master cable connection: Spring-cage connection 180°, shielding: no

Your advantages

- · Safety in the field, thanks to molded housing and high degree of protection
- · Save space: distributor box with double occupancy for two sensors in one slot
- · Save time, thanks to installation with SPEEDCON fast locking system
- · Flexible: distributor box with connector hood for on-site assembly

Commercial data

Item number	1452974	
Packing unit	1 pc	
Minimum order quantity	1 pc	
Sales key	BF41	
Product key	BF3CBC	
Catalog page	Page 262 (C-2-2019)	
GTIN	4046356553599	
Weight per piece (including packing)	222.1 g	
Weight per piece (excluding packing)	221.5 g	
Customs tariff number	85366990	
Country of origin	DE	



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Technical data

Notes

General	When connecting the signal lines to the black PCB terminal blocks, please use a 0.4 x 2.0 mm screwdriver. The black PCB terminal blocks only require a minimal amount of operating force. Screwdriver: SZS 0,4X2,0 - 1205202 Using larger screwdrivers or excessive force may damage the PCB terminal blocks. When using ferrules, the wires can be inserted straight into the PCB terminal blocks without opening the clamping area.	
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	5
Application	Standard
Number of slots	8
Coding	A
LED	No

Material specifications

Material	PBT
	PBT
	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

Dimensions

Dimensional drawing	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Width	54 mm



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Height	42 mm	
Length	149 mm	
Connection data		
Conductor connection		
Connection method	Spring-cage connection	
Stripping length	6 mm	
	10 mm	
Conductor cross section Flexible signal line	0.2 mm² 0.5 mm²	
Conductor cross section Flexible power supply	0.2 mm² 1.5 mm²	
Connection cross section AWG Flexible signal line	24 20	
Connection cross section AWG Flexible power supply	24 16	
Tightening torque, cover screw	1 Nm	
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	
	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	
	7 / 2 (B) = WHGY	
	8 / 4 (A) = VT	
	8 / 2 (B) = GYBN	
	1-8 / 1 (+ 120 V) = BN	
	1-8 / 3 (0 V) = BU	
	1-8 / 5 (PE) = GNYE	
Signaling		
Status display present	No	
Electrical properties		
Nominal voltage U _N	120 V AC	
	120 V DC	
Rated current, total	12 A	



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

Cable/line

Sensor/actuator connection system M12-SPEEDCON-socket			
Connection method	Spring-cage connection		
External cable diameter	7 mm 12 mm		
Metric conductor cross section (Signal)	0.2 mm² 0.5 mm²		
Cross section AWG (Signal)	24 20		
Stripping length (signal)	6 mm		
Metric conductor cross section (Power)	0.2 mm² 1.5 mm²		
Cross section AWG (Power)	24 16		
Stripping length (power)	10 mm		
Stripping length for sheath	50 mm (Master cable)		
Tightening torque, cover screw	1 Nm		
Tightening torque of mounting screw for fixing the housing	0.5 Nm		
Tightening torque slot sensor/actuator cable	0.4 Nm		
Tightening torque, union nut	2.5 Nm		

Standards and regulations

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

Environmental and real-life conditions

Ambient conditions

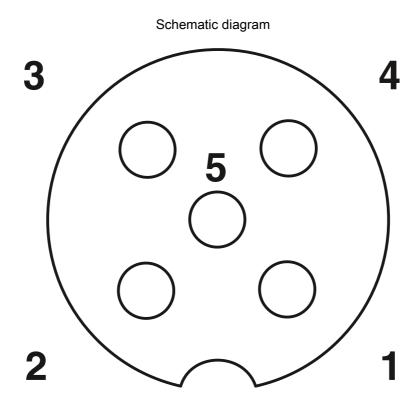
Degree of protection	IP65	
	IP67	
Ambient temperature (operation)	-25 °C 80 °C	



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Drawings



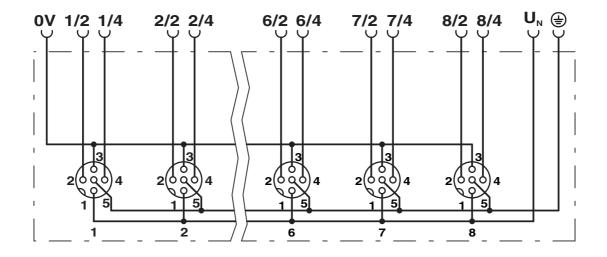
M12 slot, socket, 5-pos.



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Circuit diagram

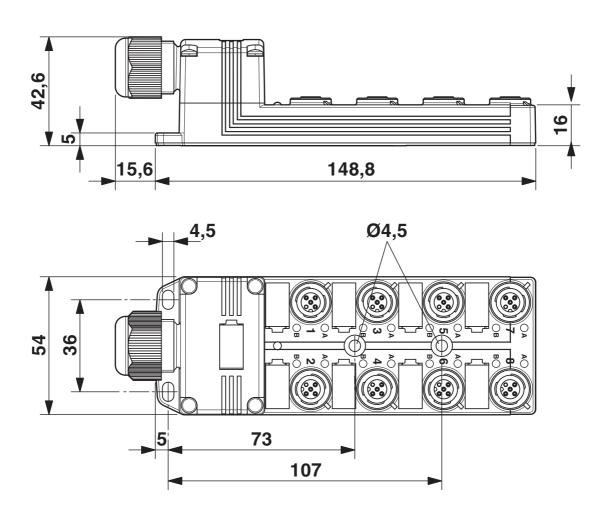




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Dimensional drawing





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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1452974

. 51 1	cUL Recognized Approval ID: FILE E 118976			
	Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
	120 V	-	-	-

71	UL Recognized Approval ID: FILE E 1189	976			
		Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
		120 V	-	-	-

EAC Approval ID: RU C-DE.Al30.B.01102

EAC	EAC Approval ID: RU C-DE.BL08.B.00511

cULus Recognized



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Classifications

UNSPSC 21.0

ECLASS

	ECLASS-11.0	27440111		
	ECLASS-12.0	27440111		
	ECLASS-13.0	27440111		
ETIM				
	ETIM 8.0	EC003558		
UNSPSC				
ONO! GO				

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

SACB-16X0,5/3X1,0-50,0 PUR - Master cable ring

1503373

https://www.phoenixcontact.com/us/products/1503373



Master cable for sensor/actuator boxes, with PE conductor, unshielded, material PUR/PP, 19-pos., $16 \times 0.50 \text{ mm}^2$ and $3 \times 1.00 \text{ mm}^2$, length: 50 m

SACB-16X0,5/3X1,0-200,0 PUR - Master cable ring

1559893

https://www.phoenixcontact.com/us/products/1559893



Master cable for sensor/actuator boxes, with PE conductor, unshielded, material PUR/PP, 19-pos., 16 x 0.50 $\,\text{mm}^2$ and 3 x 1.00 $\,\text{mm}^2$, length: 200 m on drum



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SACB-16X0,5/ 3X1,0-50,0 VPUR - Master cable ring

1430938

https://www.phoenixcontact.com/us/products/1430938



Master cable for sensor/actuator boxes, with PE conductor, unshielded, material PUR/PP, 19-pos., 16 x 0.50 $\,\text{mm}^2$ and 3 x 1.00 $\,\text{mm}^2$, length: 50 m

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



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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



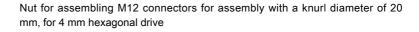
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SACC BIT M12-D20 - Tool

1208445

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





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. 5×9 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 x 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

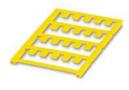
UniCard sheet, for labeling devices from other manufacturers, for overview table see download area, labeled according to customer specifications



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



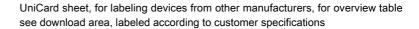
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UCT-EM (17,5X9) YE CUS - Snap-in markers

0801576

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





SZK PZ2 VDE - Screwdriver

1206463

https://www.phoenixcontact.com/us/products/1206463



Screwdriver, PZ crosshead, VDE insulated, size: PZ 2×100 mm, 2-component grip, with non-slip grip



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TSD 25 SAC - Torque screwdriver

1212315

https://www.phoenixcontact.com/us/products/1212315



Torque screwdriver, with preset torque of 2.5 Nm and 4 mm hexagonal drive for the pressure nut of the connector hood

TSD-M 3NM - Torque screwdriver

1212225

https://www.phoenixcontact.com/us/products/1212225



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 1. 2 - 3 Nm



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SAC BIT HOOD-W 24 - Tool

1212486

https://www.phoenixcontact.com/us/products/1212486

Nut for assembling pressure nuts with 24 mm wrench size, for 4 mm hexagonal drive



SF-BIT-PZ 2-50 - Screw insert

1212592

https://www.phoenixcontact.com/us/products/1212592



Screw bit, PZ crosshead, E6.3-1/4" drive, size: PZ 2 x 50 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173



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SZS 0,4X2,0 - Screwdriver

1205202

https://www.phoenixcontact.com/us/products/1205202



Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

A 0,5 - 6 - Ferrule

3200218

https://www.phoenixcontact.com/us/products/3200218



Ferrule, length: 6 mm, color: silver



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A 0,75-10 - Ferrule

3200234

https://www.phoenixcontact.com/us/products/3200234



Ferrule, length: 10 mm, color: silver

A 1 -10 - Ferrule

3200250

https://www.phoenixcontact.com/us/products/3200250



Ferrule, length: 10 mm, color: silver



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A 1,5-10 - Ferrule

3200276

https://www.phoenixcontact.com/us/products/3200276



Ferrule, length: 10 mm, color: silver

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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