

SACB-8/16-L-C SCO - Sensor/actuator box



1516836

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Sensor/actuator box, application: Standard, 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: Pluggable screw connection 180°, 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
- Flexible: distributor box with connector hood for on-site assembly

Commercial data

Item number	1516836
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF42
Product key	BF3CCD
Catalog page	Page 264 (C-2-2019)
GTIN	4017918967567
Weight per piece (including packing)	371.1 g
Weight per piece (excluding packing)	326.13 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Notes

General	For details about the PCB connectors used, refer to the technical data for MC 1,5/10-STF-3,5 (1847204)
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".

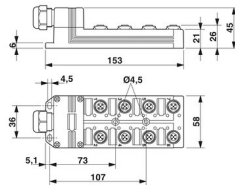
Product properties

Product type	Distributor boxes with M8 to M12 slots
Number of positions	5
Application	Standard
Number of slots	8
Coding	A
LED	yes

Material specifications

Material	Die-cast zinc
	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
Material of contact, master cable side	CU alloy
Material of the contact carrier on the master cable side	PA 6.6 V0
Material of contact surface, master cable side	gold-plated

Dimensions

Dimensional drawing	
Width	58 mm
Height	45 mm
Length	153 mm

Connection data

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Conductor connection

Connection method	Pluggable screw connection
Stripping length	7 mm
Conductor cross section Flexible signal line	0.14 mm ² ... 1.5 mm ²
Conductor cross section Flexible power supply	0.14 mm ² ... 1.5 mm ²
Connection cross section AWG Flexible signal line	26 ... 16
Connection cross section AWG Flexible power supply	26 ... 16
Tightening torque, cover screw	0.35 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) = 1 / 4
	1 / 2 (B) = 1 / 2
	2 / 4 (A) = 2 / 4
	2 / 2 (B) = 2 / 2
	3 / 4 (A) = 3 / 4
	3 / 2 (B) = 3 / 2
	4 / 4 (A) = 4 / 4
	4 / 2 (B) = 4 / 2
	5 / 4 (A) = 5 / 4
	5 / 2 (B) = 5 / 2
	6 / 4 (A) = 6 / 4
	6 / 2 (B) = 6 / 2
	7 / 4 (A) = 7 / 4
	7 / 2 (B) = 7 / 2
	8 / 4 (A) = 8 / 4
	8 / 2 (B) = 8 / 2
	1-8 / 1 (+ 24 V) = U _N
	1-8 / 3 (0 V) = 0 V
	1-8 / 5 (PE) = PE

Signaling

Status display present	Yes
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Electrical properties

Max. operating voltage U _{max}	30 V DC
Local diagnostics	Supply voltage per module Green LED
	Status display I/O Yellow LED
Nominal voltage U _N	24 V DC
Rated current, total	10 A
	2x 8 A (For electrical isolation)
Max. current carrying capacity per path	2 A
Current carrying capacity per slot	4 A

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Cable/line

Sensor/actuator connection system	M12-SPEEDCON-socket
Connection method	Pluggable screw connection
External cable diameter	7 mm ... 12 mm
Metric conductor cross section (Signal)	0.14 mm ² ... 1.5 mm ²
Cross section AWG (Signal)	26 ... 16
Stripping length (signal)	7 mm
Metric conductor cross section (Power)	0.14 mm ² ... 1.5 mm ²
Cross section AWG (Power)	26 ... 16
Stripping length for sheath	50 mm (Master cable)
Tightening torque, cover screw	0.35 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
	IP69K
Ambient temperature (operation)	-30 °C ... 80 °C

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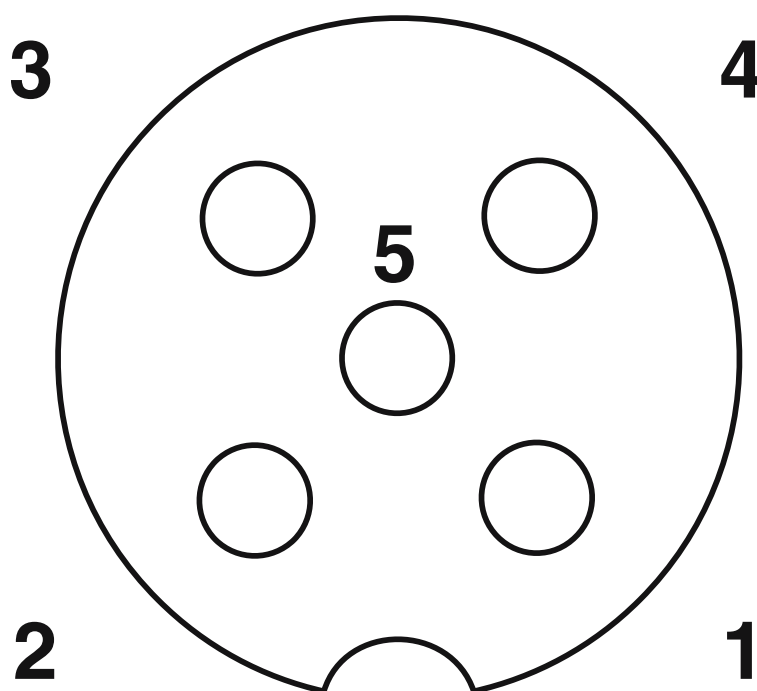


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Drawings

Schematic diagram



M12 slot, socket, 5-pos.

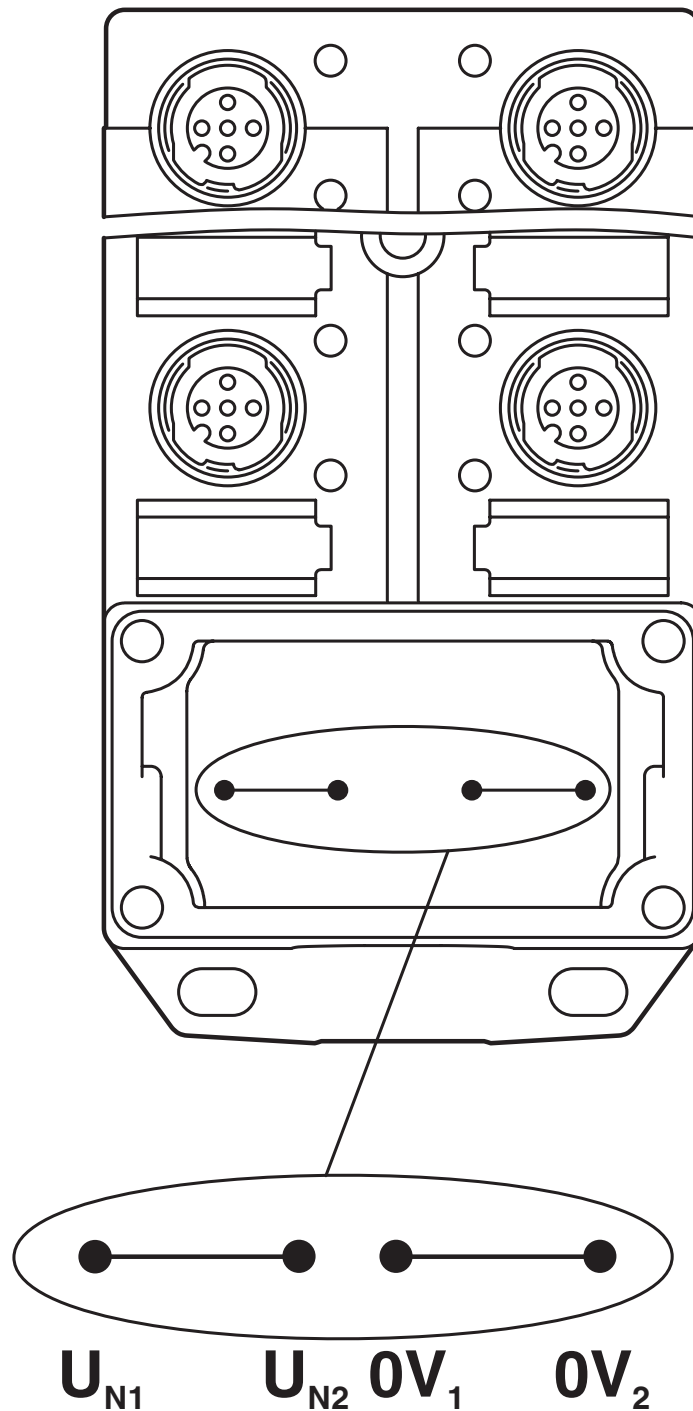
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Schematic diagram



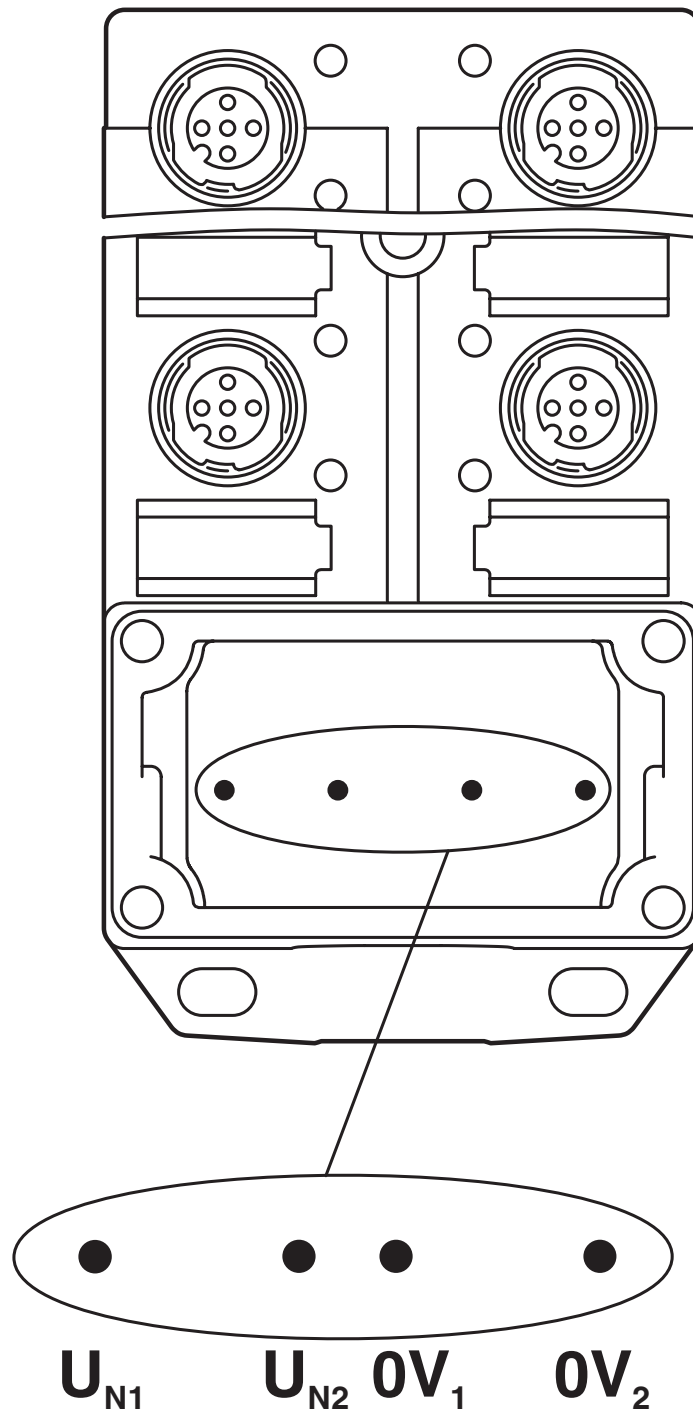
Potential U_{N1} and U_{N2} bridged. Potential assignment: $U_{N1} = U_{N2} = \text{slots } 1,2,3,4,5,6,7,8.$

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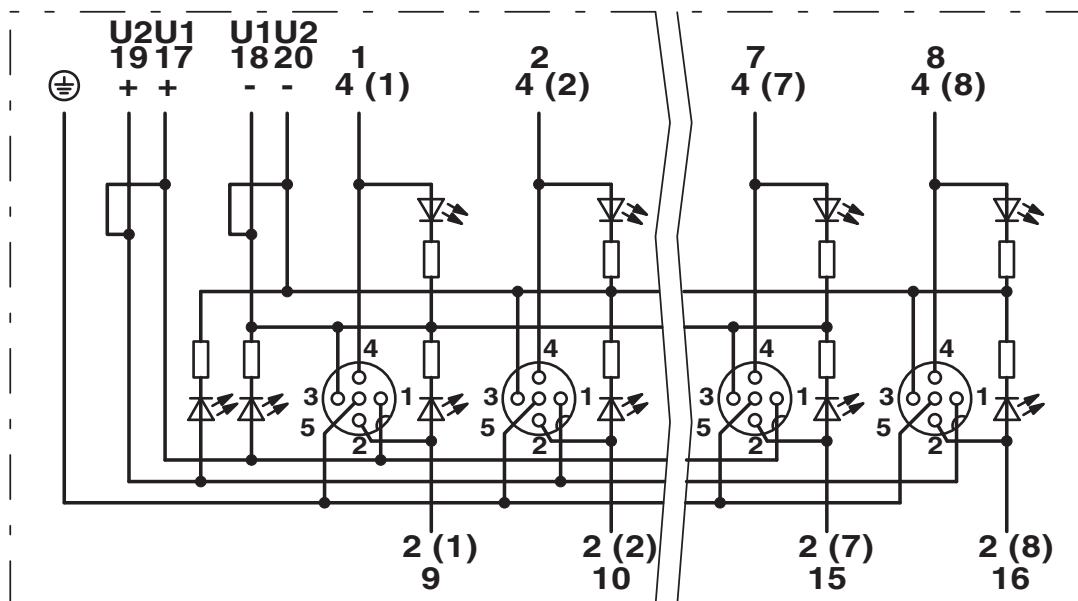
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Schematic diagram



Electrically isolated. Potential assignment: U_{N1} = slots 1,3,5,7 and U_{N2} = slots 2,4,6,8.

Circuit diagram

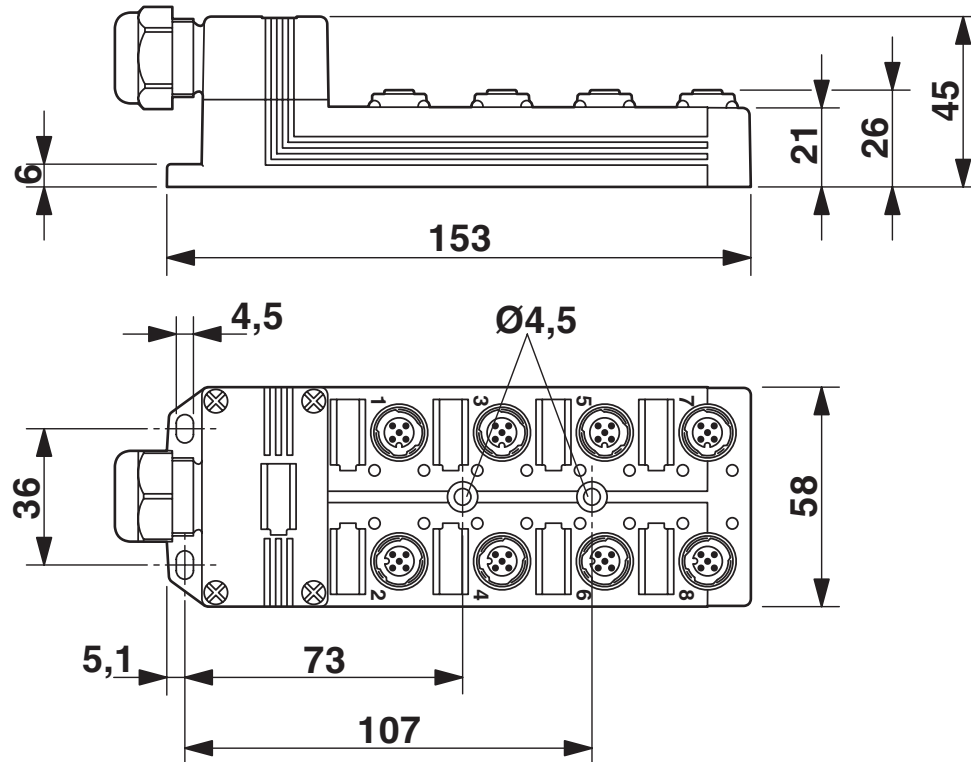


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Dimensional drawing




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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1516836>

 cUL Recognized Approval ID: FILE E 118976				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	24 V	3 A	-	-

 UL Recognized Approval ID: FILE E 118976				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	24 V	3 A	-	-

cULus Recognized				
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Classifications

ECLASS

ECLASS-11.0	27440111
ECLASS-12.0	27440111
ECLASS-13.0	27440111

ETIM

ETIM 8.0	EC003558
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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

SACB-C-H180 8/16 SCO - Connector hood

1516713

<https://www.phoenixcontact.com/us/products/1516713>



Connector hood with integrated connector with screw connection, for sensor/actuator boxes with M12 metal thread or QUICKON connection and master cable connection, for 4, 6, or 8 slots

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 x 0.50 mm² and 3 x 1.00 mm², length: 50 m

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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 mm² and 3 x 1.00 mm², length: 200 m on drum

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 mm² and 3 x 1.00 mm², length: 50 m

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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

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

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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

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

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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

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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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

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

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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

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

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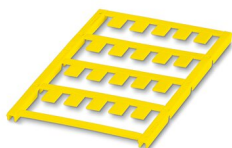
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UC-EM (17,5X9) YE - Snap-in markers

0827494

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

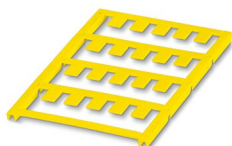


Snap-in markers, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, lettering field size: 17.5 x 9 mm, Number of individual labels: 20

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

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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

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

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SZK PZ1 VDE - Screwdriver

1206450

<https://www.phoenixcontact.com/us/products/1206450>



Screwdriver, PZ crosshead, VDE insulated, size: PZ 1 x 80 mm, 2-component grip, with non-slip grip

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

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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

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

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SF-BIT-PZ 1-50 - Screw insert

1212591

<https://www.phoenixcontact.com/us/products/1212591>



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

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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SZS 0,4X2,5 VDE - Screwdriver

1205037

<https://www.phoenixcontact.com/us/products/1205037>



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

SF-BIT-SL 0,45X2,4-70 - Screw insert

1212607

<https://www.phoenixcontact.com/us/products/1212607>



Screw bit, slotted, E6.3-1/4" drive, size: 0.45 x 2.4 x 70 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

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SF-M BH - Screwdriver

1212070

<https://www.phoenixcontact.com/us/products/1212070>



Bit screwdriver, with 1/4" quick-action chuck, handle length 119 mm, 2-component handle, with non-slip grip, suitable for bits according to DIN 3126-C 6.3 and E 6.3/ISO 1173, magnetic

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