Sensor/actuator box - SACB-8/16-L- 5,0 80MC SCO - 1401199

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Sensor/actuator box, application: Robots and drag chains, connection method: M12-SPEEDCON-socket Metal, number of slots: 8, number of positions: 5, coding: A - standard, 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

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 536110
GTIN	4046356536110

Technical data

General

Rated voltage	24 V DC
Max. operating voltage U_{max}	30 V DC
Current carrying capacity per I/O signal	2 A
Current carrying capacity per slot	4 A
Total rated current	12 A
Number of positions	5
Number of slots	8
Flammability rating according to UL 94	V0
Sensor/actuator connection system	M12-SPEEDCON-socket
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.

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Technical data

General

	Unused slots are to be sealed off prior to commissioning. Suitable sealing elements are to be found under "Accessories".

Ambient conditions

Degree of protection	IP65
	IP67
	IP69K
Ambient temperature (operation)	-30 °C ... 90 °C
	-40 °C ... 90 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

Master cable connection data

Connection method	Fixed connection
Length of cable	5 m
Tightening torque slot sensor/actuator cable	0.4 Nm
Tightening torque of mounting screw for fixing the housing	0.5 Nm

Insulation material

Housing material	PBT
Material of the moulding mass	PUR
Contact material	Cu alloy
Contact surface material	gold-plated
Contact carrier material	PA
Material of threaded sleeve	Zinc die-cast
Material of threaded sleeve surface	Nickel-plated
O-ring material	NBR

Pin assignment

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

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Technical data

Pin assignment

	8 / 2 (B) = GY/BN
	1-8 / 1 (+ 24 V) = BN
	1-8 / 3 (0 V) = BU
	1-8 / 5 (PE) = GN/YE

Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101

Cable

Cable type	PUR halogen-free, highly flexible
Cable type (abbreviation)	80MC
Cable abbreviation	LS9Y11Y-J-EFK
Conductor cross section	16x 0.5 mm² (Signal line)
	3x 1 mm² (power line)
AWG signal line	20
AWG power supply	17
Conductor structure signal line	28x 0.15 mm
Conductor structure, voltage supply	56x 0.15 mm
Wire colors	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
External cable diameter D	10.75 mm
Smallest bending radius, fixed installation	90 mm
Smallest bending radius, movable installation	120 mm
Number of 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
External sheath, color	black RAL 9005
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 10 MΩ*km (at 20 °C)
Conductor resistance	39 Ω/km (Signal line)
	19.5 Ω/m (power line)
Nominal voltage, cable	300 V
Test voltage, cable	2000 V
Special properties	Silicone-free

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Cable

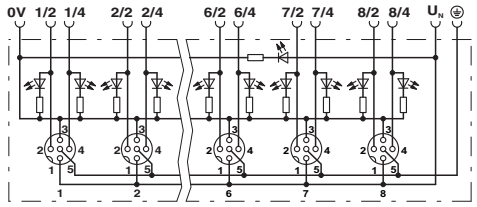
	Free of substances which would hinder coating with paint or varnish
Other resistance	somewhat resistant to welding sparks
Flame resistance	DIN EN 50265-2-1
Halogen-free	The cable is halogen-free
Resistance to oil	in accordance with DIN EN 60811-2-1
Ambient temperature (operation)	-30 °C ... 70 °C (cable, fixed installation)
	5 °C ... 70 °C (Cable, flexible installation)

Environmental Product Compliance

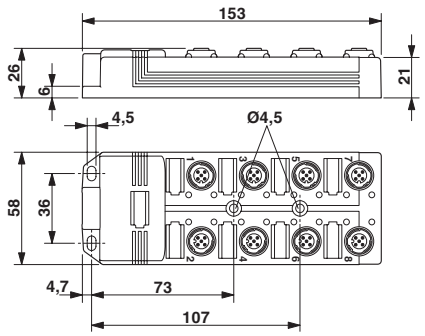
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

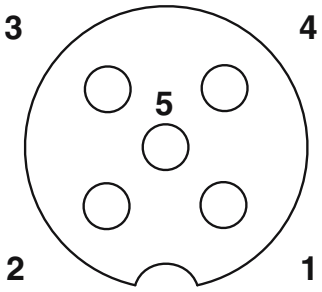
Circuit diagram



Dimensional drawing



Schematic diagram



M12 slot, socket, 5-pos.

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Cable cross section

PUR halogen-free, highly flexible [80MC]

Classifications

eCl@ss

eCl@ss 10.0.1	27440108
eCl@ss 11.0	27440108
eCl@ss 4.0	27140800
eCl@ss 4.1	27140800
eCl@ss 5.0	27143400
eCl@ss 5.1	27250300
eCl@ss 6.0	27279200
eCl@ss 7.0	27279219
eCl@ss 9.0	27440108

ETIM

ETIM 3.0	EC001856

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Classifications

ETIM

ETIM 4.0	EC002585
ETIM 6.0	EC002585
ETIM 7.0	EC002585

UNSPSC

UNSPSC 6.01	31261501
UNSPSC 7.0901	31261501
UNSPSC 11	31261501
UNSPSC 12.01	31261501
UNSPSC 13.2	31251501
UNSPSC 19.0	31251501
UNSPSC 20.0	31251501
UNSPSC 21.0	31251501

Accessories

Accessories

Device marking

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

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

Snap-in markers - UC-EM (17,5X9) YE - 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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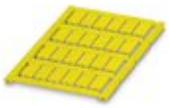
Snap-in markers - UCT-EM (17,5X9) YE - 0801492



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Labeled device marker

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

Snap-in markers - UCT-EM (17,5X9) CUS - 0801575

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

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

Snap-in markers - UCT-EM (17,5X9) YE CUS - 0801576

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

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Mounting rail adapter

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Accessories

DIN rail adapter - UTA 136 - 2853996

Universal DIN rail adapter, for screwing on switchgear

Plug for cable screw gland

Screw plug - PROT-MS SCO - 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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Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 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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Tool - SAC BIT M12-D15 - 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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Tool - SACC BIT M12-D20 - 1208445

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

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Torque tool

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Accessories

Torque screwdriver - TSD 04 SAC - 1208429

Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224

Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
http://www.phoenixcontact.com