Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)

Sensor/actuator cable, 3-position, Variable cable type, Plug straight M12 SPEEDCON, A-coded, on Valve connector A, with 1 LED, connected with Z diode, cable length: Free input (0.2 ... 40.0 m)

Your advantages

- Easy and safe: 100% electrically tested plug-in components
- Robust valve connector with Zener diode as protective circuit
- Save time, thanks to installation with SPEEDCON fast locking system
- Convenient: increased machine availability thanks to quick and easy diagnostics
- Flexible solutions - configurable materials with variable cable types and cable lengths

Key Commercial Data

Packing unit	1 pc
Minimum order quantity	25 pc
Weight per Piece (excluding packing)	0.010 g
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	Free input (0.2 ... 40.0 m)
Central screw valve connector	M3 x 29

Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-20 °C ... 85 °C (valve plug)
Degree of protection	IP65
	IP67

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

General

Rated current at 40°C	4 A
Rated voltage	24 V AC
	24 V DC
Number of positions	3
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
	Valve connector EN 175301-803
Status display	1 LED
Protective circuit/component	Z diode
Pulse power W_{max}	40 W (at 100 µs square-wave pulse)
Terminal voltage	70 V (at 2 mA constant current)
Reverse voltage	50 V
Overvoltage category	III
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100 (M12 connector)
Torque	0.4 Nm (M12 connector)
	0.6 Nm (Valve connector)

Material

Flammability rating according to UL 94	HB
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material of grip body	TPU
Valve plug contact material	CuSn
Valve plug contact surface material	Sn
Valve plug contact insert material	PA 6.6
Material housing valve plug	TPU
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	TPU (Seal molded)

Line characteristics

Note	This item is a sensor/actuator cable with a freely selectable cable type. The technical data for all possible cable types is listed in the table below.

Standards and Regulations

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

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

Standards and Regulations

Standard designation	Valve connector
Standards/regulations	EN 175301-803
Flammability rating according to UL 94	HB

PUR/PVC black [116]

Cable type	PUR/PVC, 0.75 mm², black
Cable type (abbreviation)	116
Cable abbreviation	LiYY11Y
UL AWM style	20549
Conductor cross section	3x 0.75 mm²
AWG signal line	18
Conductor structure signal line	24x 0.20 mm
Core diameter including insulation	1.7 mm ±0.05 mm
Wire colors	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	black RAL 9005
External cable diameter D	5.8 mm ±0.2 mm
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	1000000
Traversing rate	2 m/s
Acceleration	2.5 m/s²
Outer sheath, material	PUR
Material, inner sheath	PVC
Material conductor insulation	PVC
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	26 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1200 V
Special properties	flexible
Flame resistance	DIN VDE 0482
	DIN EN 50265-2-1
	in acc. with UL FT-2
Other resistance	Low adhesion
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (cable, flexible installation)

PUR/PVC gray [117]

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PUR/PVC gray [117]

Cable type	PUR/PVC gray
Cable type (abbreviation)	117
Cable abbreviation	LiYY11Y
UL AWM style	20549
Conductor cross section	3x 0.75 mm² (Signal line)
AWG signal line	18
Conductor structure signal line	24x 0.20 mm
Core diameter including insulation	1.7 mm ±0.05 mm (Signal line)
Wire colors	black 1, black 2, green/yellow
Overall twist	Wires twisted in layers
External sheath, color	gray RAL 7001
External cable diameter D	5.8 mm ±0.2 mm
Smallest bending radius, fixed installation	29 mm
Smallest bending radius, movable installation	58 mm
Number of bending cycles	1000000
Traversing rate	2 m/s
Acceleration	2.5 m/s²
Outer sheath, material	PUR
Material, inner sheath	PVC
Material conductor insulation	PVC
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	26 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1200 V
Flame resistance	according to DIN VDE 0482
	According to DIN EN 50265-2-1
	in acc. with UL FT-2
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (cable, flexible installation)

PUR black [121]

Cable type	PUR black
Cable type (abbreviation)	121
Cable abbreviation	Li9Y11Y
UL AWM style	20549
Conductor cross section	3x 1 mm²
AWG signal line	17

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PUR black [121]

Conductor structure signal line	32x 0.20 mm
Core diameter including insulation	2.1 mm ±0.05 mm
Wire colors	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	black RAL 9005
External cable diameter D	6 mm ±0.2 mm
Minimum bending radius, flexible installation	7.5 x D
Number of bending cycles	3000000
Traversing rate	2.5 m/s
Acceleration	10 m/s²
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	19.5 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1200 V
Special properties	highly flexible
Flame resistance	DIN VDE 0482
	DIN EN 50265-2-1
Resistance to oil	largely oil-resistant
Other resistance	Low adhesion
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (cable, flexible installation)

PUR irradiated halogen-free orange [150]

Cable type	PUR irradiated halogen-free orange
Cable type (abbreviation)	150
Cable abbreviation	Li12Y11X
Conductor cross section	3x 0.5 mm² (Signal line)
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.46 mm ±0.02 mm (Signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
	approx. 0.6 mm (Outer cable sheath)
Wire colors	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	orange RAL 2003

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PUR irradiated halogen-free orange [150]

External cable diameter D	4.5 mm ±0.15 mm
Number of bending cycles	5000000
Bending radius	45 mm
Traversing path	10 m
Traversing rate	3 m/s
Cable weight	31 kg/km
Outer sheath, material	PUR
Material conductor insulation	TPE-E
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Conductor resistance	max. 39 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	Silicone-free
	Irradiated
Flame resistance	in accordance with DIN UL-Style 20549
Halogen-free	in accordance with DIN VDE 0472 part 815
Ambient temperature (operation)	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (cable, flexible installation)

PUR halogen-free yellow [240]

Cable type	PUR halogen-free yellow
Cable type (abbreviation)	240
Cable abbreviation	Li9Y11Y
UL AWM style	20549 (80°C/300 V)
Conductor cross section	3x 0.5 mm²
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.46 mm ±0.02 mm
Thickness, insulation	≥ 0.21 mm
Wire colors	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	yellow
Outer sheath thickness	approx. 0.6 mm
External cable diameter D	4.5 mm ±0.15 mm
Cable weight	30 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PUR halogen-free yellow [240]

Conductor material	Bare Cu litz wires
Insulation resistance	≥ 10 GΩ*km
Conductor resistance	≤ 39 Ω/km
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Flame resistance	in accordance with DIN UL-Style 20549
Halogen-free	in accordance with DIN VDE 0472 part 815
Ambient temperature (operation)	-15 °C ... 80 °C (cable, fixed installation)

PUR halogen-free gray [280]

Cable type	PUR halogen-free gray
Cable type (abbreviation)	280
Cable abbreviation	Li9Y11Y-HF
UL AWM style	20549
Conductor cross section	3x 0.5 mm² (Signal line)
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.5 mm ±0.05 mm (Signal line)
Wire colors	black 1, black 2, green/yellow
Overall twist	Wires twisted in layers
External sheath, color	gray RAL 7001
External cable diameter D	4.5 mm ±0.2 mm
Smallest bending radius, fixed installation	22.5 mm
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s²
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	39 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1200 V
Flame resistance	according to DIN VDE 0482
	According to DIN EN 50265-2-1
Resistance to oil	largely oil-resistant

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PUR halogen-free gray [280]

Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (cable, flexible installation)

PVC gray [500]

Cable type	PVC gray
Cable type (abbreviation)	500
Cable abbreviation	LiYY
Conductor cross section	3x 0.5 mm² (Signal line)
AWG signal line	20
Conductor structure signal line	16x 0.20 mm
Core diameter including insulation	1.5 mm ±0.05 mm (Signal line)
Wire colors	black 1, black 2, green/yellow
Overall twist	Wires twisted in layers
External sheath, color	gray RAL 7001
External cable diameter D	4.8 mm ±0.2 mm
Smallest bending radius, fixed installation	24 mm
Outer sheath, material	PVC
Material conductor insulation	PVC
Conductor material	Bare Cu litz wires
Insulation resistance	min. 20 MΩ*km
Conductor resistance	39 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1200 V
Flame resistance	DIN EN 50265-2-1
Resistance to oil	largely oil-resistant
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (cable, flexible installation)

PVC [534]

Cable type	PVC, 0.75 mm², black
Cable type (abbreviation)	534
Conductor cross section	3x 0.75 mm² (Signal line)
AWG signal line	18
Conductor structure signal line	24x 0.20 mm
Core diameter including insulation	1.7 mm ±0.1 mm
Wire colors	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	black

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PVC [534]

External cable diameter D	5.3 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Outer sheath, material	PVC
Material conductor insulation	PVC
Conductor material	Bare Cu litz wires
Insulation resistance	min. 20 MΩ*km (at 20 °C)
Conductor resistance	26 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1200 V
Flame resistance	DIN VDE 0482
	DIN EN 50265-2-1
	in acc. to UL VW1
Resistance to oil	in accordance with DIN EN 60811-2-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (cable, flexible installation)

PUR, halogen-free, highly stranded, resistant to welding sparks, gray [802]

Note	Due to the extremely robust outer sheath, this cable should only be stripped in 5 cm increments.
Cable type	PUR, halogen-free, highly stranded, resistant to welding sparks, gray
Cable type (abbreviation)	802
Cable abbreviation	Li12Y11Y-HF
Conductor cross section	3x 0.5 mm² (Signal line)
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.5 mm ±0.05 mm (Signal line)
Wire colors	black 1, black 2, green/yellow
Overall twist	Wires twisted in layers
External sheath, color	gray RAL 7001
External cable diameter D	4.5 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	5 x D
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s²

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PUR, halogen-free, highly stranded, resistant to welding sparks, gray [802]

Torsion force	± 360 °/m
Cable weight	31 kg/km
Outer sheath, material	PUR
Material conductor insulation	PES
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	39 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1200 V
Special properties	Cable jacket is welding spark-resistant, recyclable, matt, low-adhesion, abrasion-resistant, flame-retardant, and self-extinguishing
	Free from silicone and cadmium
	Free of substances which would hinder coating with paint or varnish
Flame resistance	DIN VDE 0472 part 804, test type B
	IEC 60332-1
	in acc. with UL FT-2
Halogen-free	The cable is halogen-free
Resistance to oil	according to VDE 0472 Part 803
Other resistance	Highly resistant to acids, alkaline solutions and solvents
Ambient temperature (operation)	-40 °C ... 90 °C (cable, fixed installation)
	-30 °C ... 90 °C (cable, flexible installation)
	to 120 °C (for 3000 h)

PUR halogen-free black [PUR]

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
UL AWM style	20549
Conductor cross section	3x 0.5 mm²
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.5 mm ±0.05 mm (Signal line)
Wire colors	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	black-gray RAL 7021
External cable diameter D	4.5 mm ±0.2 mm
Smallest bending radius, fixed installation	22.5 mm

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PUR halogen-free black [PUR]

Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s²
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	min. 20 MΩ*km
Conductor resistance	39 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 1200 V
Flame resistance	according to DIN VDE 0482
	According to DIN EN 50265-2-1
Halogen-free	in accordance with DIN VDE 0472 part 815
Other resistance	largely oil-resistant
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (cable, flexible installation)

PVC black [PVC]

Cable type	PVC black
Cable type (abbreviation)	PVC
Cable abbreviation	LiYY
UL AWM style	2464
Conductor cross section	3x 0.5 mm²
AWG signal line	20
Conductor structure signal line	16x 0.20 mm
Core diameter including insulation	1.5 mm ±0.05 mm
Wire colors	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	black RAL 9005
External cable diameter D	4.8 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Outer sheath, material	PVC
Material conductor insulation	PVC
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Technical data

PVC black [PVC]

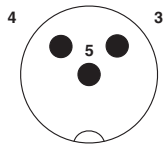
Conductor resistance	39 Ω/km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage, cable	1200 V
Flame resistance	DIN VDE 0482
	DIN EN 50265-2-1
Resistance to oil	largely oil-resistant
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (cable, flexible installation)

Environmental Product Compliance

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

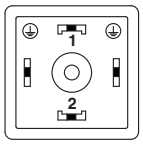
Drawings

Schematic diagram



Pin assignment M12 plug, 3-pos., valve connector

Schematic diagram

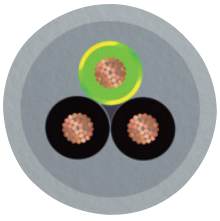


Valve connector pin assignment, type A

Cable cross section

PUR/PVC black [116]

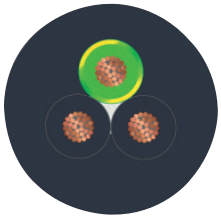
Cable cross section



PUR/PVC gray [117]

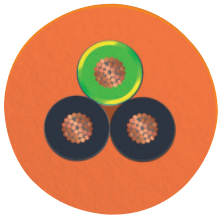
Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Cable cross section



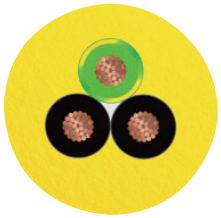
PUR black [121]

Cable cross section



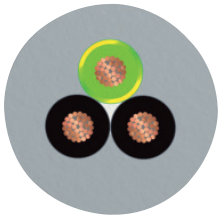
PUR irradiated halogen-free orange [150]

Cable cross section



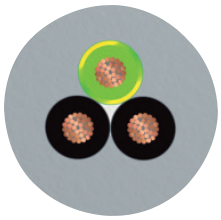
PUR halogen-free yellow [240]

Cable cross section



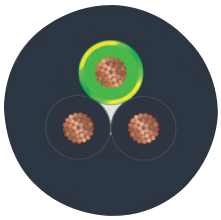
PUR halogen-free gray [280]

Cable cross section



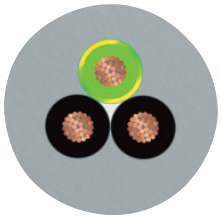
PVC gray [500]

Cable cross section



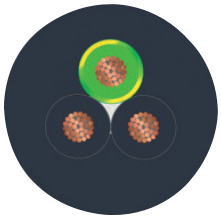
PVC [534]

Cable cross section



PUR, halogen-free, highly stranded, resistant to welding sparks, gray [802]

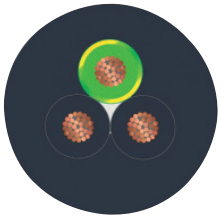
Cable cross section



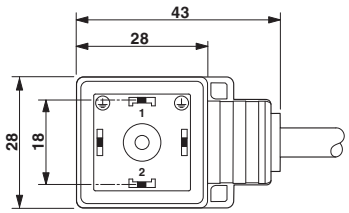
PUR halogen-free black [PUR]

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Cable cross section



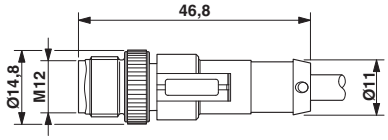
Dimensional drawing



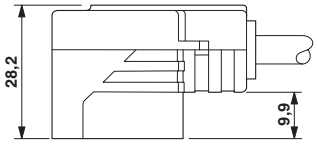
PVC black [PVC]

Valve connector, type A

Dimensional drawing



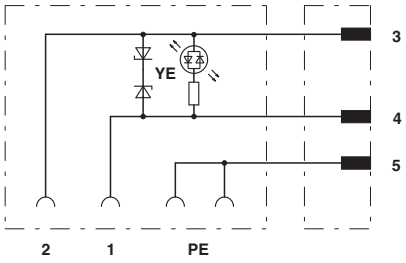
Dimensional drawing



Valve connector, type A, side view

Plug, M12 x 1, straight, shielded

Circuit diagram



Contact assignment of M12 plug and valve connector

Classifications

eCl@ss

eCl@ss 10.0.1	27060312
eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061800

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Classifications

eCl@ss

eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 8.0	27279218
eCl@ss 9.0	27060312

ETIM

ETIM 4.0	EC001855
ETIM 5.0	EC001855
ETIM 6.0	EC001855

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

Approvals

Approvals

Approvals

CSAus / EAC

Ex Approvals

Approval details

CSAus		http://www.csagroup.org/services-industries/product-listing/	13631

Nominal voltage UN	24 V
Nominal current IN	4 A

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Approvals

EAC	EAC	RU C-DE.AI30.B.00767

Accessories

Accessories

Conductor marking

Insert label - PABA WH/15 - 1013151

Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

Insert label - PABA YE/15 - 1013698

Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

Insert label - PABA RD/15 - 1013944

Insert label, Strip, red, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 0.6 - 50 mm, lettering field size: 15 x 4 mm

Marker carrier cable

Conductor marker carrier - PATO 2/15 - 1013122

Conductor marker carrier, transparent, unlabeled, mounting type: clip on, cable diameter range: 2.8 - 4.4 mm, lettering field size: 4 x 15 mm

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Accessories

Conductor marker carrier - PATO 3/15 - 1013135

Conductor marker carrier, transparent, unlabeled, mounting type: clip on, cable diameter range: 4.4 - 6.7 mm, lettering field size: 4 x 15 mm

Conductor marker carrier - PATO 4/15 - 1013148

Conductor marker carrier, transparent, unlabeled, mounting type: clip on, cable diameter range: 6.7 - 10 mm, lettering field size: 4 x 15 mm

Marker pen

Marker pen - B-STIFT - 1051993

Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Mounting material

Screw - SAC-V-SCREW-M3-29 KNURL - 1403779

Fillister head screw with plastic knurl, M3 x 40

Protective cap

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Accessories

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs

Safety locking

Locking clip - SAC-M12-EXCLIP-M - 1558988

Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Screwdriver tools

Screw insert - SF-BIT-PH 1-70 - 1212582

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

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

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

Sensor/actuator cable - SAC-3P-MS-A-1L-Z SCO/.../... - 1434921

Accessories

Torque tool

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