

Proximity switches for T-slot



Festo Core Range
Solves the majority of your automation tasks

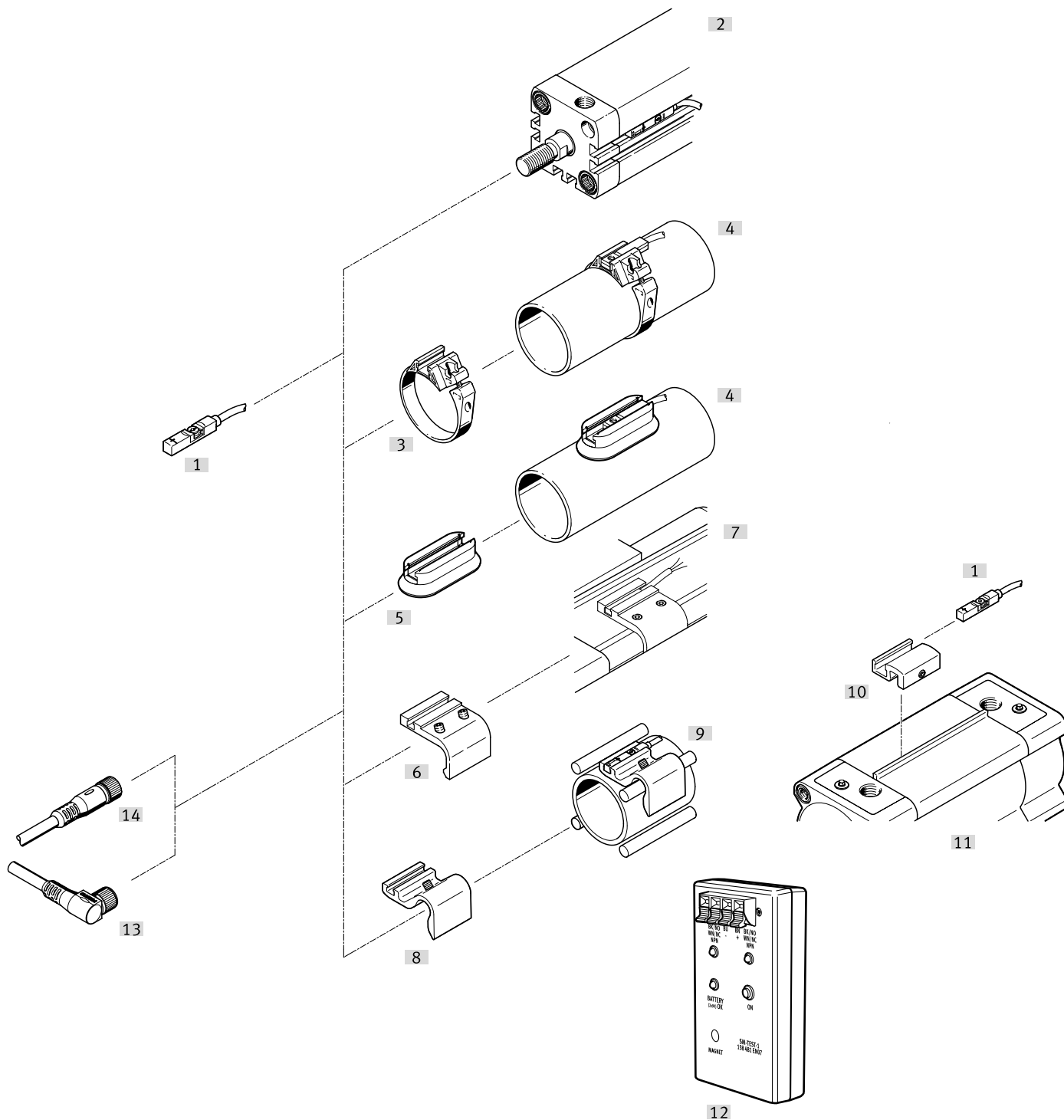
With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery.

Worldwide: Quickest delivery – wherever, whenever
Simply good: Expected high Festo quality
Fast: Easy and fast to select

The Core Range offers you the best value for your automation tasks.



Peripherals overview



Peripherals overview

Mounting components and accessories		→ Page	Mounting components and accessories		→ Page
Proximity switches			Mounting kits and accessories		
[1]	CRSMT-8M-..., with cable	5	[3]	Mounting kit SMBR	9
			[5]	Mounting kit CRSMB, corrosion-resistant	9
			[6]	Mounting kit SMB-8-FENG	10
			[8]	Sensor bracket DASP-M4-...	11
			[10]	Mounting kit SMB-8-C	10
			[12]	Sensor tester SM-TEST-1	12
			-	Positioning element SMM-8	11
			-	Clip SMBK-8	12
			-	Inscription label ASLR	12
			-	Safety clip NEAU	12
Connecting cables			Drives		
[14]	NEBU-M...G...	12	[2]	Drives with T-slot	-
[13]	NEBU-M...W...	12	[4]	Round cylinder	-
			[7]	Standards-based cylinder DSBC	-
			[9]	Drives with tie or mounting rod	-
			[11]	Standards-based cylinders DSBF	-

Type codes

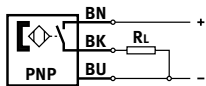
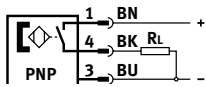
001	Series	
CRSMT	Proximity sensor	
002	Design type	
8	For T-slot	
003	Sensor version	
M	Can be inserted in the slot	
004	Switching output	
PS	3-wire PNP N/O contact	
005	Rated operating voltage	
24V	24 V	

006	Cable characteristic	
K	Standard/suitable for energy chains	
007	Cable length [m]	
0,3	0.3 m	
5,0	5 m	
10,0	10 m	
008	Connection technology	
OE	Open end	
M8D	M8, rotatable thread	
M12	M12, rotatable thread	

Data sheet – Magneto-resistive

Function

PNP, N/O contact, with plug



- Food-safe
- Acid resistant
- Alkali resistant
- Resistant to cooling lubricants



General technical data	
Design	For T-slot
Based on standard	EN 60947-5-2
Application information	Support / Actuator-sensor overview "The right sensor for the actuator"
CE marking (see declaration of conformity)	To EU EMC Directive
	To EU Explosion Protection Directive (ATEX)
	To EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
	To UK EX instructions
	To UK RoHS instructions
Certification	RCM compliance mark
KC mark	KC EMC
Special characteristics	Resistant to acids, alkalis, cooling lubricants
Inductive protective circuit	Adapted to MZ, MY, ME coils
Resistance to interference from magnetic fields	Design insensitive to permanent magnetic fields < Bon
Food-safe ¹⁾	See supplementary information on materials
Note on materials	RoHS-compliant, halogen-free
PWIS conformity	VDMA24364-B2-L

1) Additional information is available at www.festo.com/sp → Certificates.

Input signal/measuring element	
Measuring principle	Magneto-resistive
Measured variable	Position
Ambient temperature	[°C] -40 ... 85

Switching output	
Switching element function	N/O contact
Switching output	PNP
Repetition accuracy	[mm] 0.2
Switch-on time	[ms] ≤ 1
Switch-off time	[ms] ≤ 1
Max. switching frequency	[Hz] 180
Max. output current	[mA] 100
Max. output current in mounting kit	[mA] 100
Max. switching capacity DC	[W] 2.8
Max. switching capacity DC in mounting kits	[W] 2.8
Voltage drop	[V] < 1.5
Off-state current	[mA] < 0.05

Output, additional data	
Short circuit current rating	Yes
Overload protection	Provided

Data sheet – Magneto-resistive

Electronics	
Switching output	PNP
Rated operating voltage [V DC]	24
Operating voltage range [V DC]	5 ... 30
Residual ripple [%]	10
Reverse polarity protection	For all electrical connections

Electromechanics	
Electrical connection	OE M8D M12
Connection type	Cable Cable with plug
Connection technology	Open end M8x1, A-coded to EN 61076-2-104 M12x1, A-coded to EN 61076-2-101
Number of pins/wires	3
Type of mounting	– Screw-type lock
	Screw-clamped
	Inserted in the slot from above
Outlet direction of connection	In-line
Cable characteristic	Standard + energy chain
Cable test conditions	Cable chain: 5 million cycles, bending radius 75 mm
	Torsional resistance: > 300,000 cycles, ±270°/0.1 m
	Bending strength: to Festo standard

Mechanics	
Electrical connection	OE M8D M12
Mounting position	Any
Tightening torque [Nm]	0.1 ... 0.6
Max. tightening torque [Nm]	0.6
Information on materials	
Housing	High-alloy stainless steel, PA, PP
Union nut	– Nickel-plated brass
Cable sheath	TPE-O
Insulating sheath	PP
Plug housing	– PP
Wire ends	Wire end sleeves –
Pin contacts	– Nickel-plated and gold-plated brass

Display/operation	
Switching status indication	Yellow LED
Function reserve indication	Orange LED

Immission/emission	
Ambient temperature with flexible cable installation [°C]	–20 ... 85
Degree of protection	IP65
	IP68
	IP69K

ATEX	
ATEX category for gas	II 3G
Type of ignition protection for gas	Ex nA IIC T4 X Gc
ATEX category for dust	II 3D
Type of ignition protection for dust	Ex tc IIIC T120°C X Dc
Explosion-proof ambient temperature [°C]	–40°C ≤ Ta ≤ +85°C
CE marking (see declaration of conformity)	To EU EMC Directive
	To EU Explosion Protection Directive (ATEX)

Data sheet – Magneto-resistive

Pin allocation to EN 60947-5-2

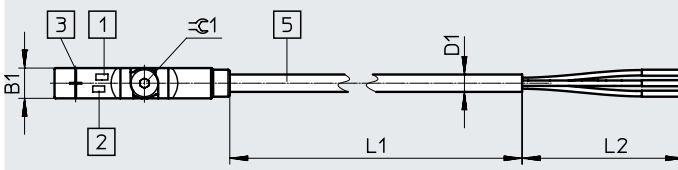
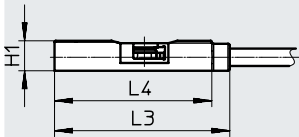
M8x1, 3-pin
N/O contact

	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	-
	4	Black	Output

M12x1, 3-pin
N/O contact

	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	-
	4	Black	Output

Dimensions, open end

Download CAD data → www.festo.com

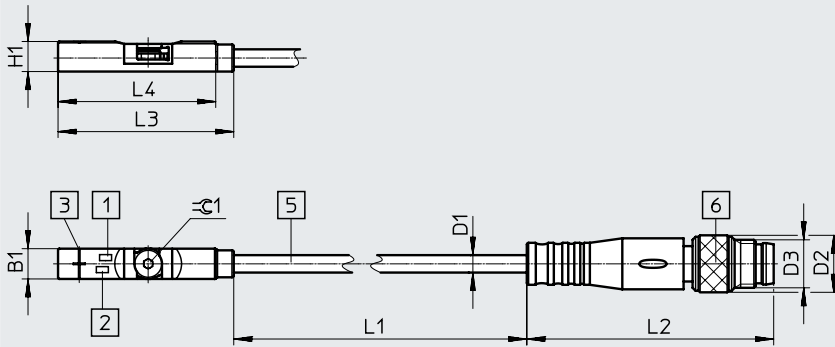
- [1] Yellow light emitting diode
- [2] Orange light emitting diode
- [3] Centre of the sensor element
- [5] Connecting cable

Type	B1	D1 ∅	H1	L1	L2	L3	L4	≈ 1
CRSMT-8M-PS-24V-K-5.0-OE	5	2.9	5	5000	50	29.3	26.3	1.5
CRSMT-8M-PS-24V-K-10.0-OE				10000				

Data sheet – Magneto-resistive

Dimensions with plug

Download CAD data → www.festo.com



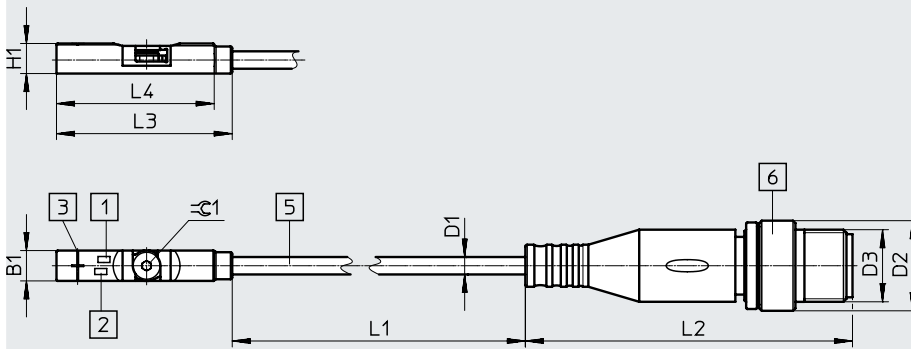
- [1] Yellow light emitting diode
- [2] Orange light emitting diode
- [3] Centre of the sensor element
- [4] Slot for screwdriver
- [5] Connecting cable
- [6] Plug module M8D

L1 Cable length

Type	B1	D1 ∅	D2	D3	H1	L2	L3	L4	⊖ 1
CRSMT-8M-PS-24V-K-0.3-M8D	5	2.9	9.5	M8x1	5	41.1	29.3	26.3	1.5

Dimensions with plug

Download CAD data → www.festo.com



- [1] Yellow light emitting diode
- [2] Orange light emitting diode
- [3] Centre of the sensor element
- [4] Slot for screwdriver
- [5] Connecting cable
- [6] Plug module M12 3-pin

L1 Cable length

Type	B1	D1 ∅	D2 ∅	D3	H1	L2	L3	L4	⊖ 1
CRSMT-8M-PS-24V-K-0.3-M12	5	2.9	15	M12x1	5	54.5	29.3	26.3	1.5

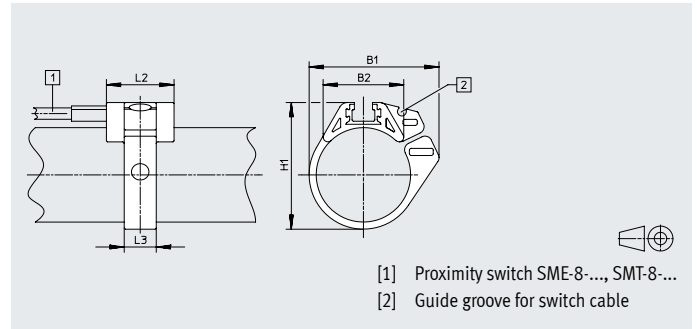
Ordering data

	Switching output	Electrical connection		Cable length [m]	Weight [g]	Part no.	Type
		Cable	Cable with plug, screw-type lock				
N/O contact, corrosion-resistant							
	PNP	3-wire, open end	–	5	47.6	574380	CRSMT-8M-PS-24V-K-5,0-OE-EX2
	PNP	3-wire, open end	–	10	93.4	574381	CRSMT-8M-PS-24V-K-10,0-OE-EX2
	PNP	3-pin with plug	M12x1, A-coded To EN 61076-2-101	0.3	9.1	574382	CRSMT-8M-PS-24V-K-0,3-M12-EX2
	PNP	3-pin with plug	M8x1, A-coded To EN 61076-2-104	0.3	16.1	574383	CRSMT-8M-PS-24V-K-0,3-M8D-EX2

Accessories

Mounting kit SMBR

Material:
Polyacetal
RoHS-compliant



Dimensions and ordering data

For piston \varnothing	B1	B2	H1	L2	L3	Part no.	Type
8	18.9	12.3	17.5	19	7	175091	SMBR-8-8
10	20.4	13.7	19.9	19	7	175092	SMBR-8-10
12	22.7	14.3	21.9	19	7	★ 175093	SMBR-8-12
16	28.2	16.9	25.7	19	8	★ 175094	SMBR-8-16
20	34.5	20.8	30.4	19	9	★ 175095	SMBR-8-20
25	36.7	22.7	35.6	19	9	★ 175096	SMBR-8-25
32	41.7	24.6	42.7	19	9	175097	SMBR-8-32
40	47.1	26.5	50.7	19	9	175098	SMBR-8-40
50	56.4	28.6	61.5	19	9	175099	SMBR-8-50
63	69.4	32	74.5	19	9	175100	SMBR-8-63

Mounting kit CRSMB

Design: For round cylinders
Type of mounting: Bonded using enclosed adhesive tape

Degree of protection: IP65, IP68, IP69K

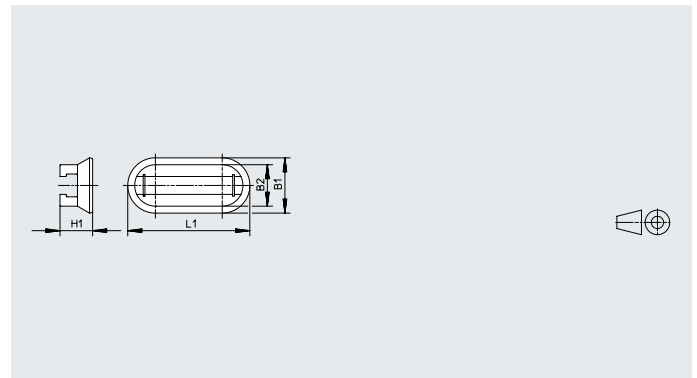
Ambient temperature: $-40 \dots +90^{\circ}\text{C}$

Material:

Housing: Polyurethane

Rail: Hard anodised aluminium

Free of copper and PTFE



Ordering data

For piston \varnothing	B1	B2	H1	L1	CRC ¹⁾	Part no.	Type
32 ... 100	15.8	11.8	9.3	35	4	525565	CRSMB-8-32/100

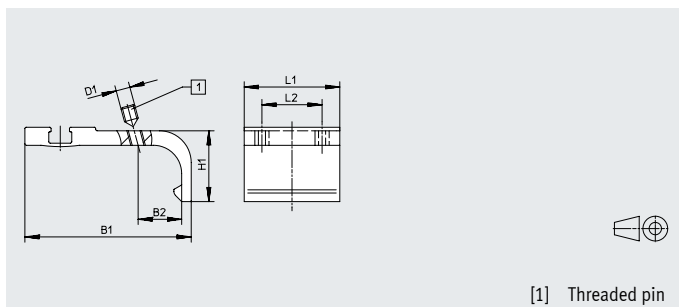
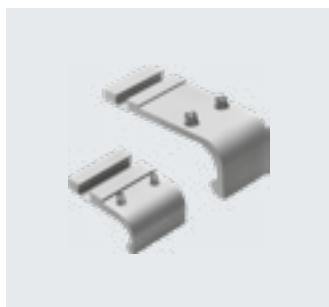
1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (→ also FN 940082), using appropriate media.

Accessories

Mounting kit SMB-8-FENG

Material:
Wrought aluminium alloy
Free of copper and PTFE



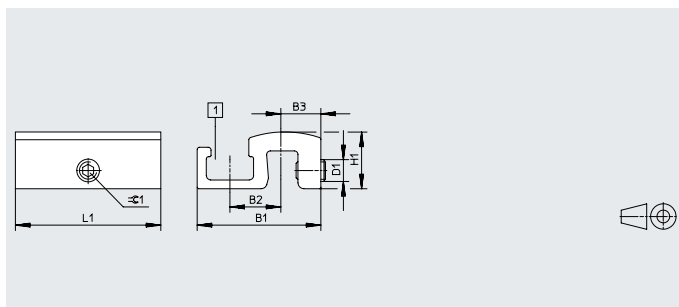
[1] Threaded pin

Dimensions and ordering data

For piston \varnothing	B1	B2	D1	H1	L1	L2	Tightening torque [Nm]	Part no.	Type
3 2/40	35.1	8.7	M3	15.5	27	17	0.2	175705	SMB-8-FENG-32/40
5 0/63	47	12.3	M4	20	27	17	0.5	175706	SMB-8-FENG-50/63
8 0/100	64.3	15.7	M5	24.3	27	17	0.7	175707	SMB-8-FENG-80/100

Mounting kit SMB-8-C

Temperature: $-40 \dots 120^\circ\text{C}$
Material:
Retaining bracket: Anodised wrought aluminium alloy
Screws: High-alloy stainless steel
Free of copper and PTFE,
RoHS-compliant



Dimensions and ordering data

Type	B1	B2	B3	D1	H1	L1	≈ 1	Tightening torque [Nm]	CRC ¹⁾	Weight [g]	Part no.	Type
SMB-8-C	17	7	5.5	M3	7.8	20	1.5	0.2 ... 0.6	3	3.5	1806790	SMB-8-C

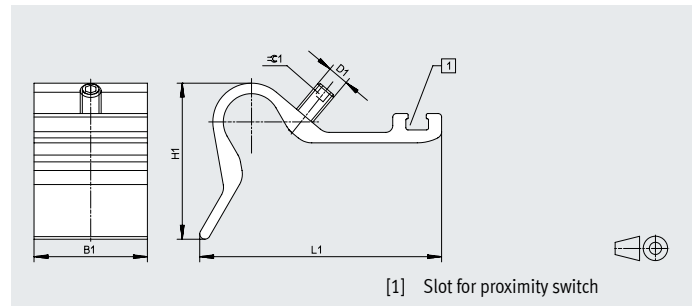
1) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Accessories

Sensor bracket DASP-M4-...-A

Material:
Anodised wrought aluminium alloy
Screws: High-alloy stainless steel
RoHS-compliant



Dimensions and ordering data											
Type	B1	D1	H1	L1	≈ 1	Tightening torque [Nm]	CRC ¹⁾	Weight [g]	Part no.	Type	
DASP-M4-125-A	32.5	M5	28	45.4	2.5	1	3	26.5	1451483	DASP-M4-125-A	
DASP-M4-160-A	32.5	M6	44.7	69.4	3	1	3	41.5	1553813	DASP-M4-160-A	
DASP-M4-250-A	32.5	M6	56.3	88	3	1	3	60	1456781	DASP-M4-250-A	
DASP-M4-320-A	32.5	M6	56.3	88	3	1	3	60	3015256	DASP-M4-320-A	

1) Corrosion resistance class CRC 3 to Festo standard FN 940070

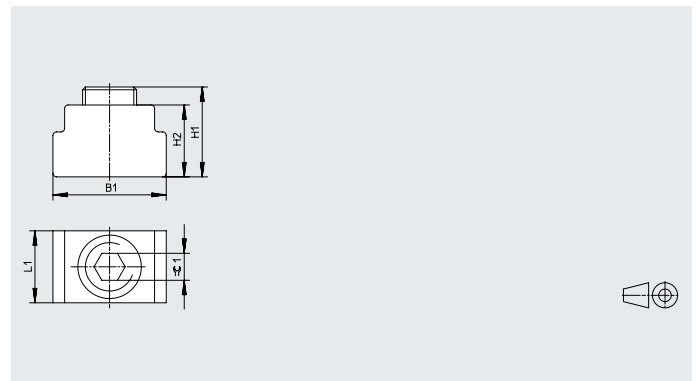
High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Positioning element SMM

Inserted in the slot lengthwise

Ambient temperature: -40 ... +120°C

Materials:
Housing: Anodised wrought aluminium alloy
Screws: High-alloy stainless steel
Note on materials: RoHS-compliant




Dimensions and ordering data									
B1	H1	H2	L1	≈ 1	CRC ¹⁾	Part no.	Type	PU ²⁾	
6.3	5.0	4.0	4.0	1.5	3	547941	SMM-8	10	





1) Corrosion resistance class CRC 3 to Festo standard FN 940070


High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

2) Packaging unit


Accessories


Ordering data – Sensor mounting			
	Description	Part no.	Type
	Stainless steel sensor mounting for piston Ø 32 ... 63	8174843	DASP-V4-8-A-R1
	Stainless steel sensor mounting for piston Ø 80 ... 125	8174844	DASP-V4-12-A-R1


Ordering data – Connecting cables				Data sheets → Internet: nebu/sim	
		Number of wires	Cable length [m]	Part no.	Type
Socket M8x1, 3-pin					
	For SMT/SME-8... and SMT0/SMTSO/SME0-8E	3	2.5	★ 541333	NEBU-M8G3-K-2.5-LE3
			5	★ 541334	NEBU-M8G3-K-5-LE3
	For SMT/SME-8... and SMT0/SMTSO/SME0-8E	3	2.5	★ 541338	NEBU-M8W3-K-2.5-LE3
			5	★ 541341	NEBU-M8W3-K-5-LE3
Socket M12x1, 5-pin					
	For SMT/SME-8M and SMT0/SMTSO/SME0-8E	3	2.5	★ 541363	NEBU-M12G5-K-2.5-LE3
			5	★ 541364	NEBU-M12G5-K-5-LE3
	For SMT/SME-8M and SMT0/SMTSO/SME0-8E	3	2.5	541367	NEBU-M12W5-K-2.5-LE3
			5	541370	NEBU-M12W5-K-5-LE3


Ordering data – Safety clip for ATEX zone					
	Size	Description	Part no.	Type	PU ¹⁾
	M8	<ul style="list-style-type: none"> Protects "equipment that is not intrinsically safe" in zones 2 and 22 against simple disconnection ATEX category: gas: II 3G / dust: II 3D 	548067	NEAU-M8-GD	1
	M12		548068	NEAU-M12-GD	1

1) Packaging unit

Ordering data – Impact protection			
	Description	Part no.	Type
	Accessories for CRSMT-8M use in EX environment zone 2/22	8184143	SACC-N8-SP

Ordering data – Mounting components			
	Description	Part no.	Type
	For fixing connecting cables in place	534254	SMBK-8

Ordering data – Sensor tester			
	Description	Part no.	Type
	<ul style="list-style-type: none"> Testing the functionality of proximity switches using the integrated voltage supply Adjusting proximity switches on the cylinder 	158481	SM-TEST-1

Ordering data – Inscription labels				
	Size	Part no.	Type	PU ¹⁾
	23x4 mm	541598	ASLR-L-423	34

1) Packaging unit