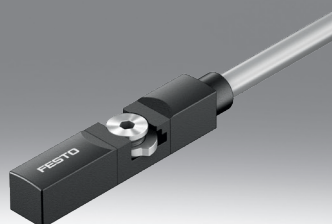


Proximity switch CRSMT-8M

FESTO



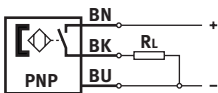
Characteristics

At a glance

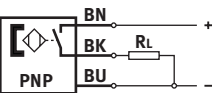
- Suitable for use in the food industry
- Resistant to acids and alkalis
- Resistant to cooling lubricants
- ATEX zones: 2, 22
- ATEX equipment categories: 3GD
- Protection types IP65, IP68 (10 weeks), IP69k

Connection technology

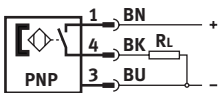
[OE] Open end



[M8D] M8, rotatable thread



[M12] M12, rotatable thread



Type code

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	

Datasheet

General technical data

Design	For T-slot
Mounting position	optional
Approval	RCM trademark
Based on standard	EN 60947-5-2
Special characteristics	Resistant to cooling lubricants, Alkali resistant, Acid resistant
CE mark (see declaration of conformity)	To EU EMC Directive, To EU Explosion Protection Directive (ATEX), In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC, To UK EX instructions, To UK RoHS instructions
Note on materials	RoHS-compliant, Free of halogen
Inductive protective circuit	Adapted to MZ, MY, ME coils
Instructions on use	Support / actuator-sensor overview "The right sensor for the actuator"
Immunity to magnetic fields	Design insensitive to permanent magnetic fields < Bon
Suitable for use with food ¹⁾	See supplementary material information

1) Further information www.festo.com/crsmt → Certificates.

Input signal/measuring element

Measured variable	Position
Measuring principle	Magneto-resistive
Ambient temperature	-40 ... 85°C
Ambient temperature with moving cable	-20 ... 85°C

Switching output

Switching output	PNP
Switching element function	N/O contact
Repetition accuracy	0.2 mm
Switch-on time	≤1 ms
Switch-off time	≤1 ms
Max. output current	100 mA
Max. switching capacity DC	2.8 W
Max. switching frequency	180 Hz

Output, further data

Short circuit current rating	yes
Reverse polarity protection	For all electrical connections

Electronics

Rated operational voltage DC	24 V
Operational voltage range DC	5 ... 30 V
Voltage drop	<1.5 V
Inductive protective circuit	Adapted to MZ, MY, ME coils
Min. load current	0 mA
Off-state current	<0.05 mA
Overload protection	Available
Residual ripple	10%

Datasheet

Electromechanics

Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101	M8x1, A-coded, to EN 61076-2-104	Open end
Electrical connection 1, connection type	Cable with plug		Cable
Electrical connection 1, number of connections/cores	3		
Electrical connection 1, type of mounting	Screw-type lock		–
Connection outlet orientation	In-line		
Cable length	0.3 m		5 m, 10 m
Material cable sheath	TPE-O		
Cable sheath colour	Grey		
Material electrical contact	Brass, nickel-plated and gold-plated		–
Material connector housing	PP		–
Test conditions cable	Bending strength: to Festo standard, Torsional strength: > 300,000 cycles, $\pm 270^\circ/0.1$ m, Energy chain: > 5 million cycles, bending radius 75 mm		

Mechanics

Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101	M8x1, A-coded, to EN 61076-2-104	Open end
Type of mounting	Screw-clamped, Insertable in the slot from above		
Material housing	PA, PP, High-alloy stainless steel		
Material union nut	Nickel-plated brass		–
Material cable sheath	TPE-O		
Material insulating sheath	PP		
Cable characteristic	Standard/suitable for energy chains		
Housing colour	Black		
Cable sheath colour	Grey		
Wire ends	–		Wire ferrule
Tightening torque	0.1 ... 0.6 Nm		
Max. tightening torque	0.6 Nm		

Display/operation

Switching status indication	Yellow LED
Function reserve indication	Orange LED

Immission/emission

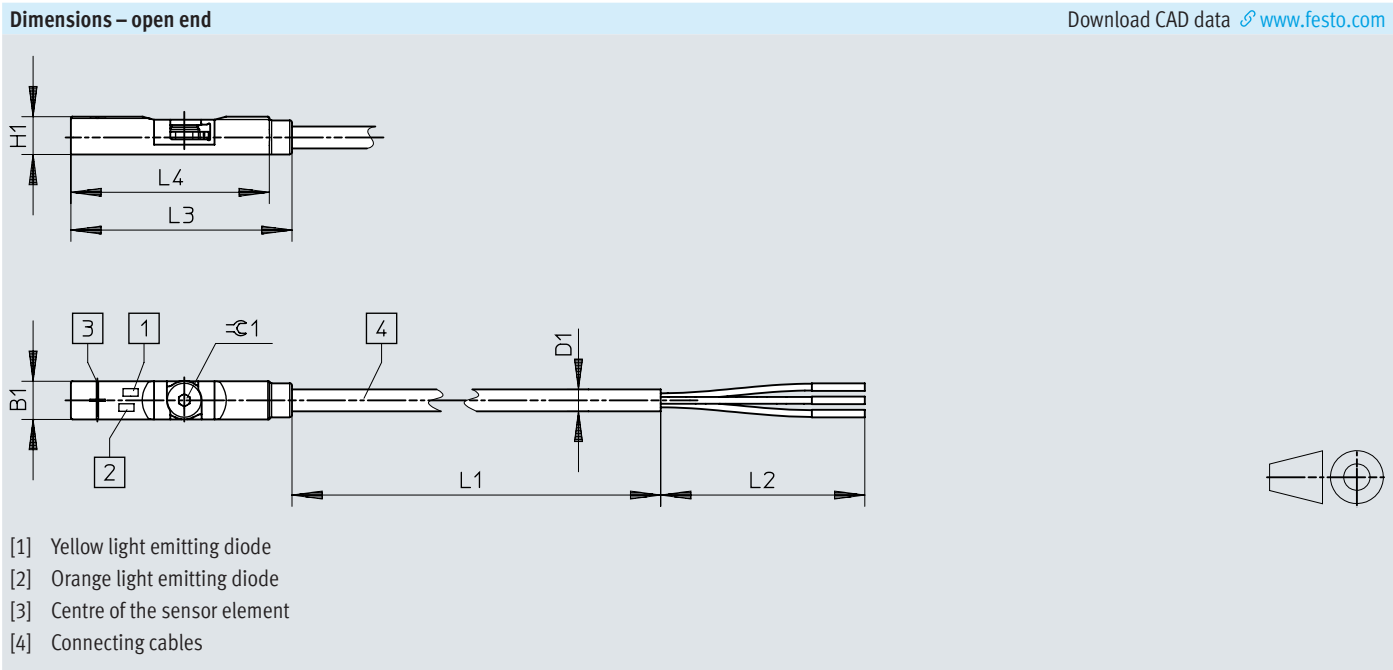
Degree of protection	IP65, IP68, IP69K
LABS (PWIS) conformity	VDMA24364-B2-L

ATEX

Corrosion resistant

ATEX category gas	II 3G
Explosion ignition protection type for gas	Ex ec IIC T4 Gc X
ATEX category dust	II 3D
Explosion ignition protection type for dust	Ex tc IIIC T120°C Dc X
Explosion protection certification outside the EU	EPL Dc (GB), EPL Gc (GB)
Explosion ambient temperature	-40°C ≤ Ta ≤ +85°C

Dimensions

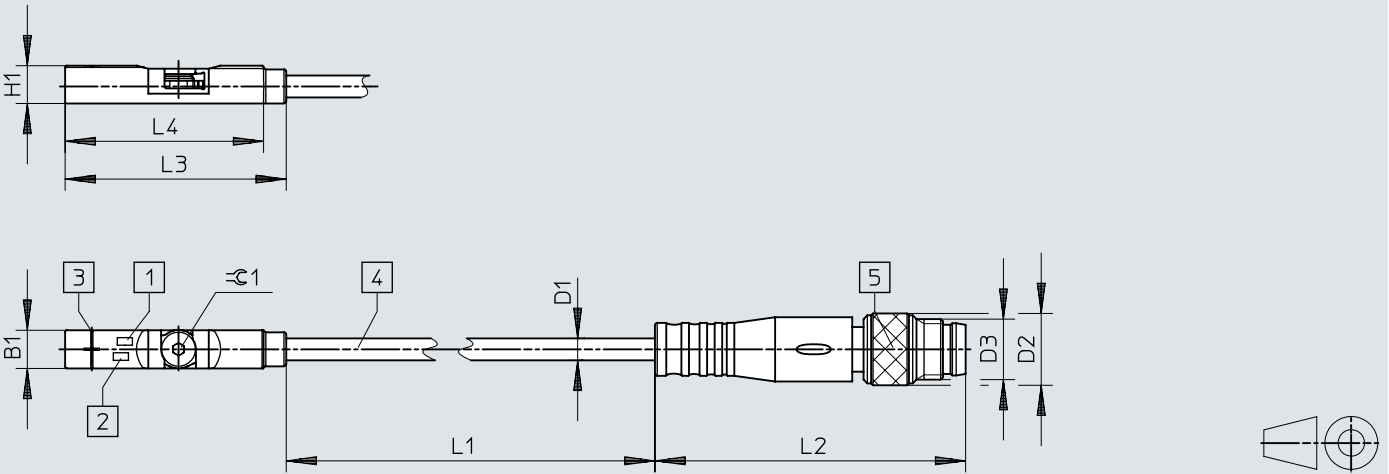


	B1	D1 Ø	H1	L1	L2	L3	L4	≈ 1
CRSMT-8M-PS-24V-K-5,0-OE	5	2,9	5	5000	50	29,3	26,3	1,5
CRSMT-8M-PS-24V-K-10,0-OE				10000				

Dimensions

Dimensions – With BG M8D plug

Download CAD data www.festo.com

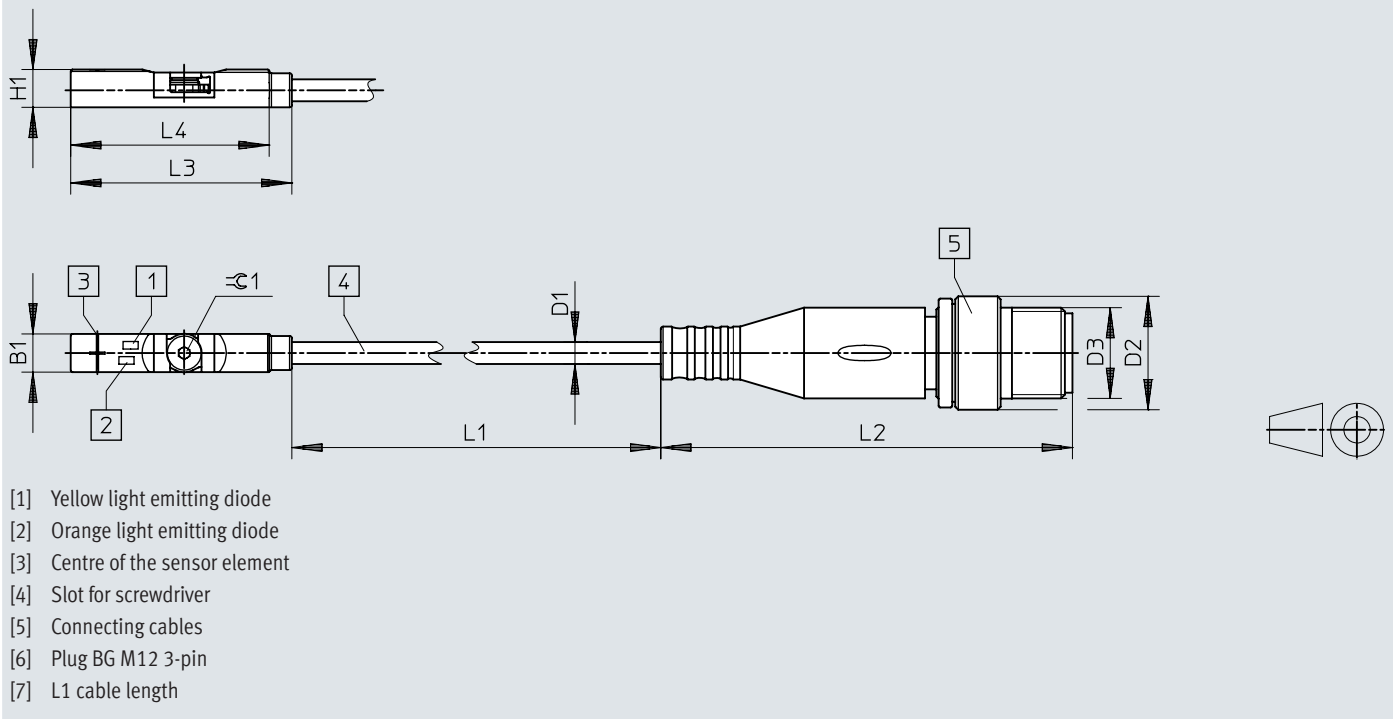


- [1] Yellow light emitting diode
- [2] Orange light emitting diode
- [3] Centre of the sensor element
- [4] Slot for screwdriver
- [5] Connecting cables
- [6] Plug BG M8D
- [7] L1 cable length

	B1	D1 Ø	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

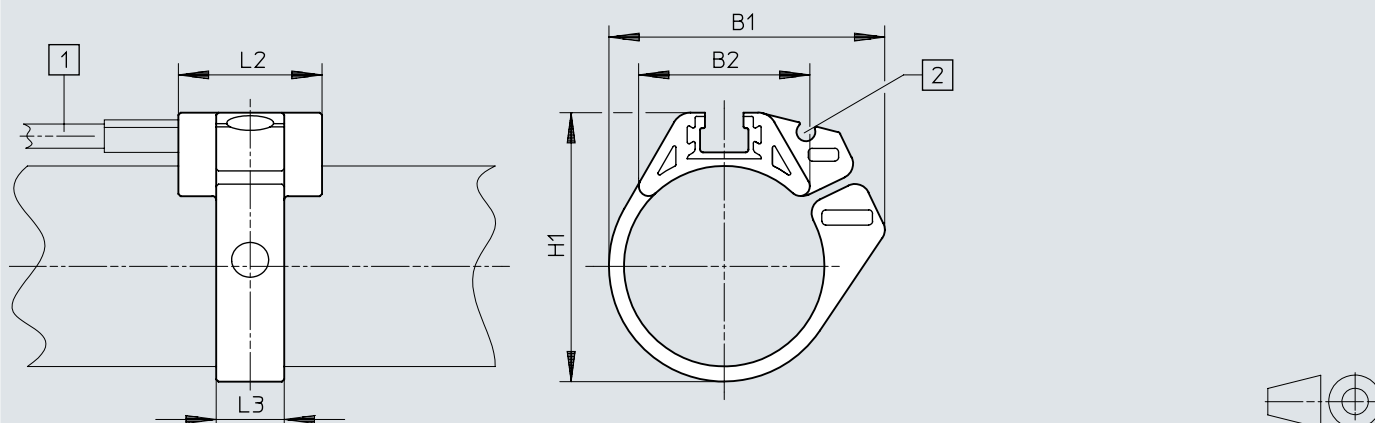
Dimensions – With plug BG M12, 3 pin Download CAD data www.festo.com



	B1	D1 Ø	D2 Ø	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

Dimensions

Dimensions – Mounting kit SMBR

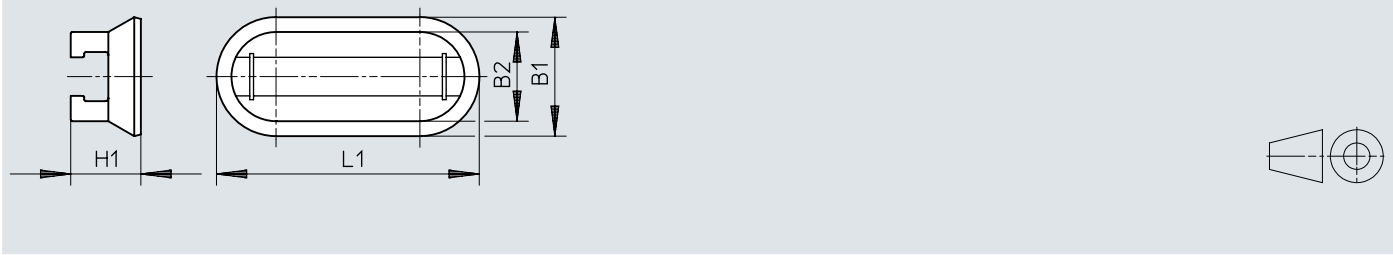
[Download CAD data](#) www.festo.com


- [1] Proximity switches SME-8- ..., SMT-8- ...
 [2] Guide slot for switch cable

	B1	B2	H1	L2	L3
SMBR-8-8	18,9	12,3	17,5	19	7
SMBR-8-10	20,4	13,7	19,9	19	7
SMBR-8-12	22,7	14,3	21,9	19	7
SMBR-8-16	28,2	16,9	25,7	19	8
SMBR-8-20	34,5	20,8	30,4	19	9
SMBR-8-25	36,7	22,7	35,6	19	9
SMBR-8-32	41,7	24,6	42,7	19	9
SMBR-8-40	47,1	26,5	50,7	19	9
SMBR-8-50	56,4	28,6	61,5	19	9
SMBR-8-63	69,4	32	74,5	19	9

Dimensions

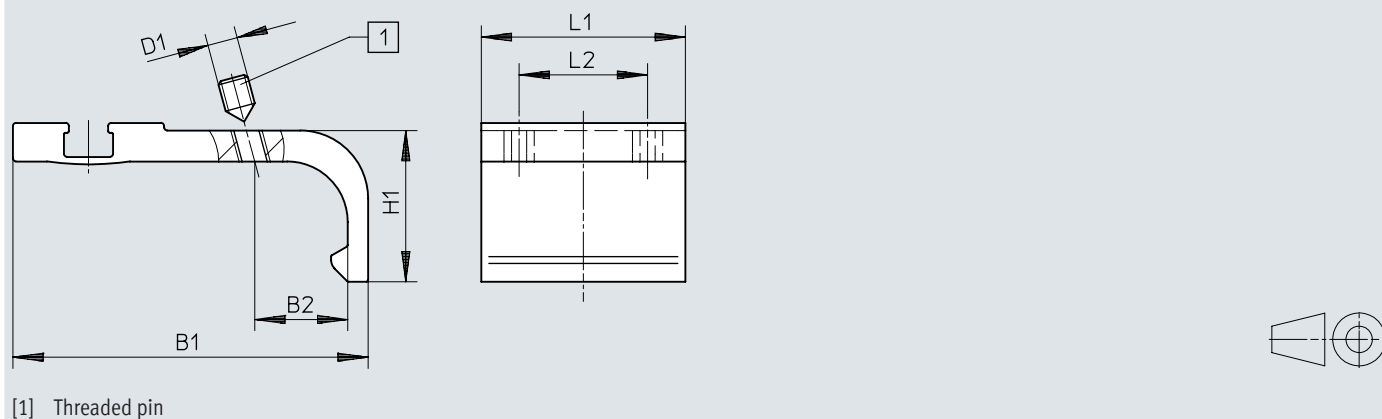
Dimensions – Mounting kit CRSMB [Download CAD data](http://www.festo.com) www.festo.com



	B1	B2	H1	L1
CRSMB-8-32/100	15,8	11,8	9,3	35

Dimensions

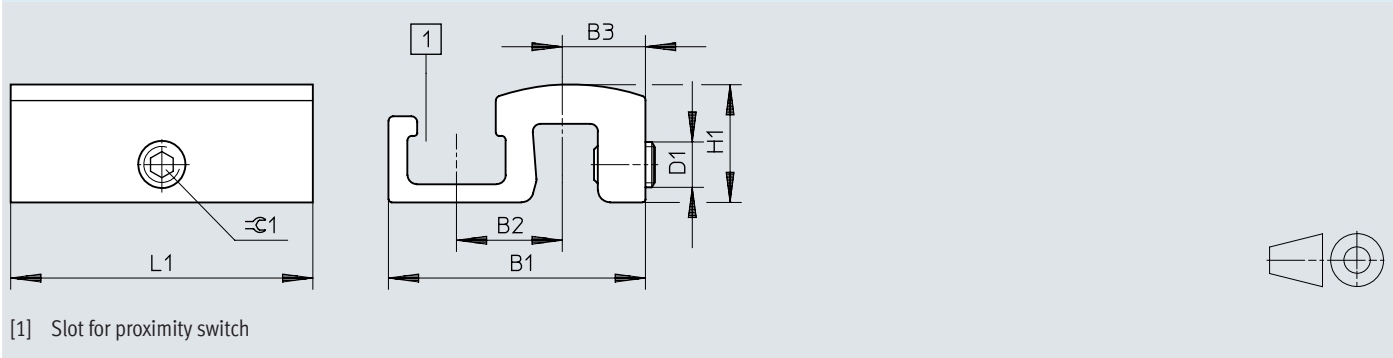
Dimensions – Mounting kit SMB-8-FENG

[Download CAD data](#) www.festo.com


	B1	B2	D1	H1	L1	L2
SMB-8-FENG-32/40	35,1	8,7	M3	15,5	27	17
SMB-8-FENG-50/63	47	12,3	M4	20	27	17
SMB-8-FENG-80/100	64,3	15,7	M5	24,3	27	17

Dimensions

Dimensions – Mounting kit SMB-8-C [Download CAD data](http://www.festo.com) www.festo.com

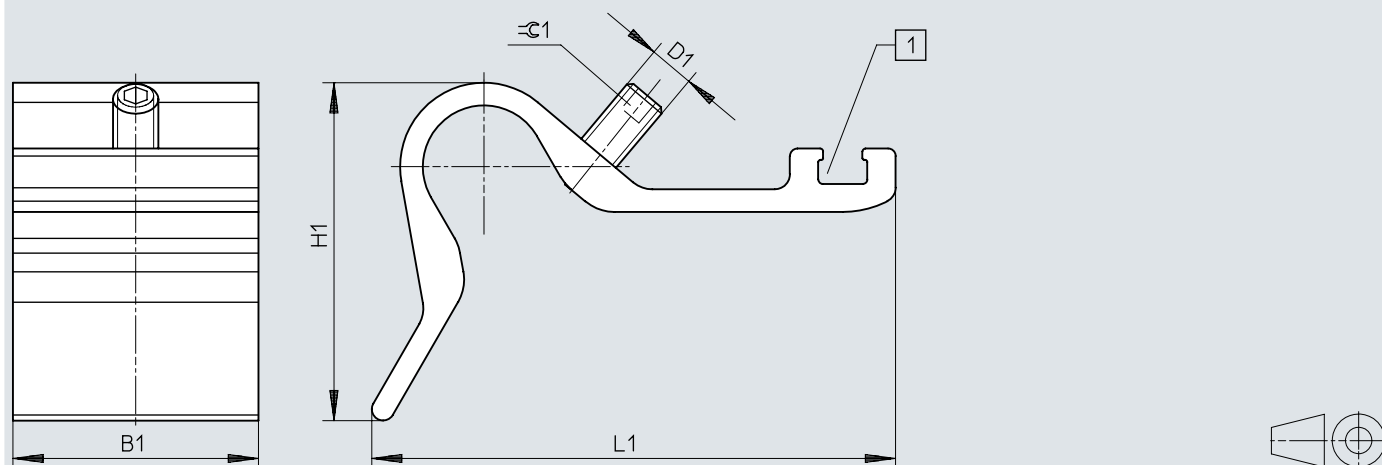


	B1	B2	B3	D1	H1	L1	1
SMB-8-C	17	7	5,5	M3	7,8	20	1,5

Dimensions

Dimensions – Sensor bracket DASP-M4-...-A

Download CAD data www.festo.com

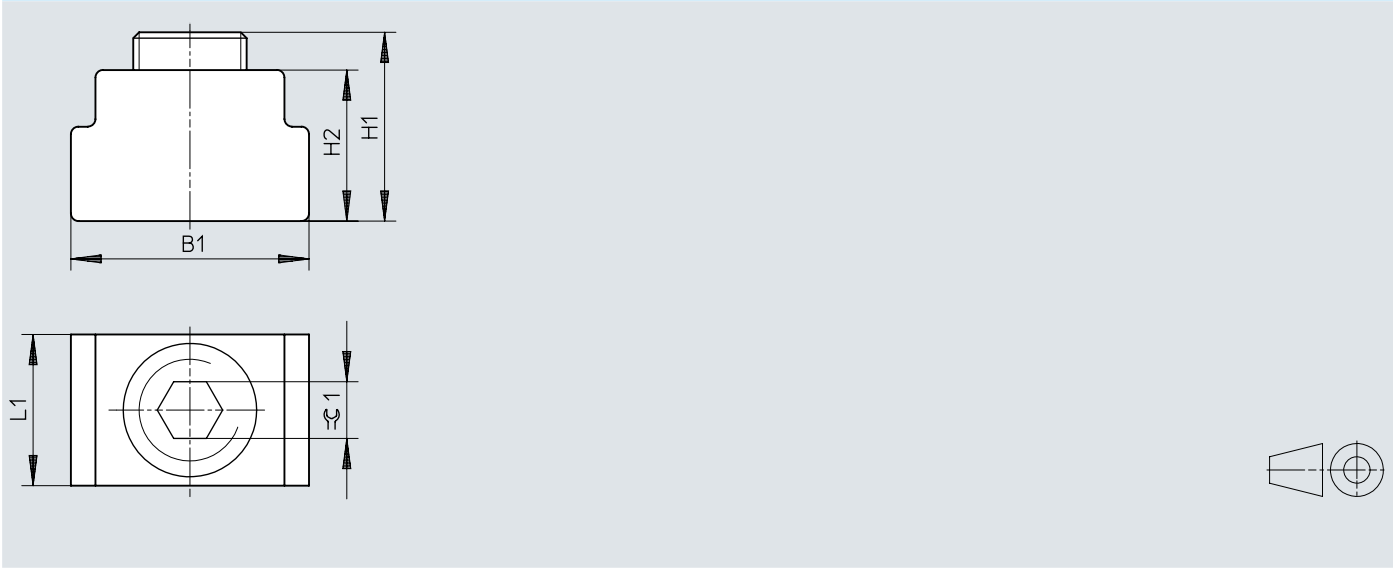


[1] Slot for proximity switch

	B1	D1	H1	L1	1
DASP-M4-125-A	32,5	M5	28	45,4	2,5
DASP-M4-160-A	32,5	M6	44,7	69,4	3
DASP-M4-250-A	32,5	M6	56,3	88	3
DASP-M4-320-A	32,5	M6	56,3	88	3

Dimensions

Dimensions – Positioning element SMM [Download CAD data](http://www.festo.com) www.festo.com



	B1	H1	H2	L1	Ø1
SMM-8	6,3	5,0	4,0	4,0	1,5

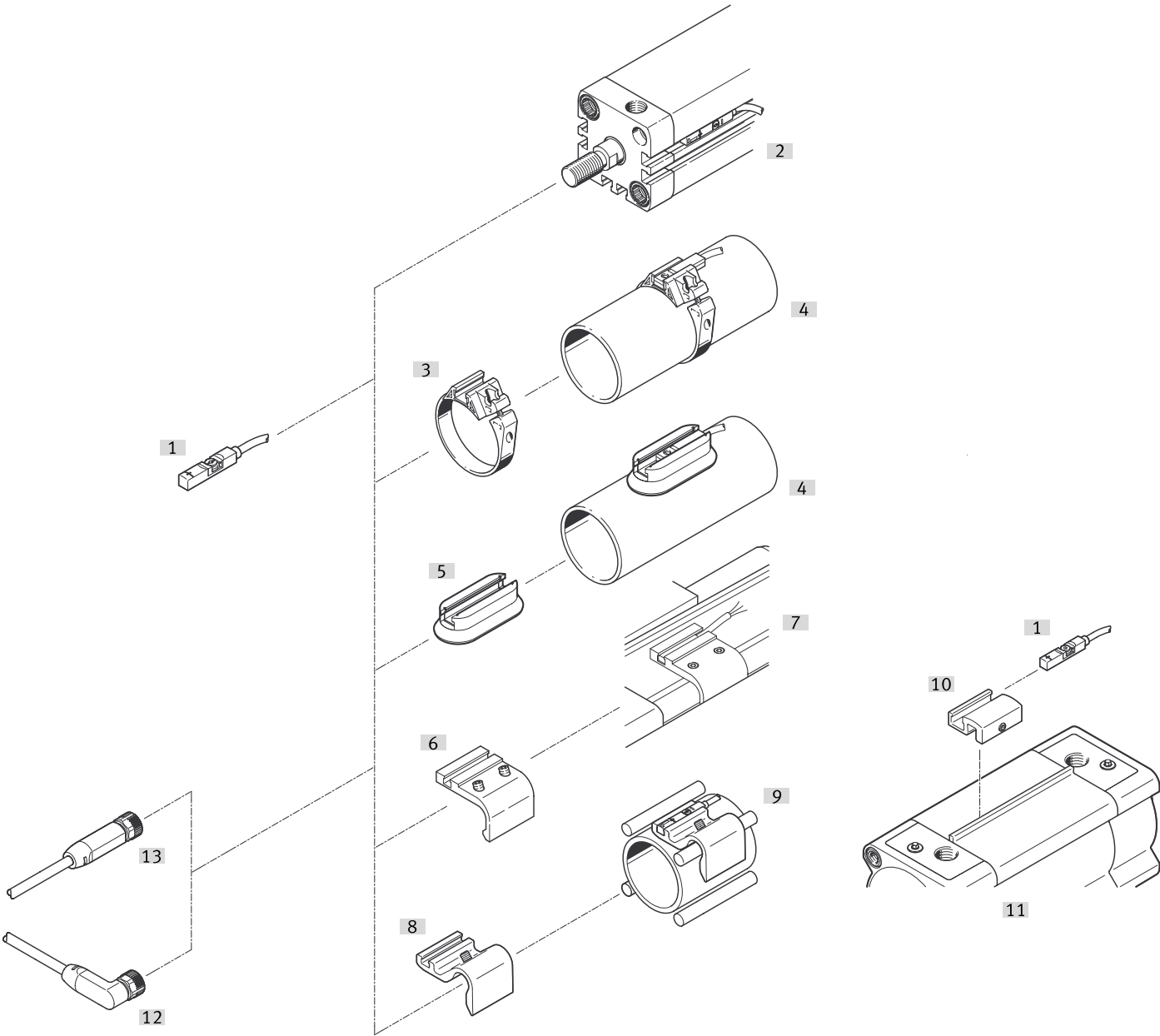
Ordering data

Ordering data, open end					
	Electrical connection 1, number of connections/ cores	Cable length	Product weight	Part no.	Type
	3	5 m	47.6 g	574380	CRSMT-8M-PS-24V-K-5,0-OE-EX2
		10 m	93.4 g	574381	CRSMT-8M-PS-24V-K-10,0-OE-EX2

Ordering data, screw locking					
	Electrical connection 1, number of connections/ cores	Cable length	Product weight	Part no.	Type
	3	0.3 m	9.1 g	574382	CRSMT-8M-PS-24V-K-0,3-M12-EX2
			16.1 g	574383	CRSMT-8M-PS-24V-K-0,3-M8D-EX2

Peripherals

Peripherals overview

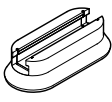


Accessories		→ Link
Type/order code	Description	
[1] CRSMT-8M	With cable	crsmt-8m
[2] Drives with T-slot	–	-
[3] Mounting kit SMBR	–	17
[4] Round cylinder	–	-
[5] Mounting kit CRSMB	Corrosion resistant	17
[6] Mounting kit SMB-8-FENG	–	17
[7] Standards-based cylinder DSBC	–	-
[8] Sensor bracket DASP-M4-...-A	–	17
[9] Drives with tie rod or mounting rod	–	-
[10] Mounting kit SMB-8-C	–	17
[11] Standards-based cylinder DSBF	–	-
[12] Connecting cables NEBA	Angled socket	18
[13] Connecting cables NEBA	Straight socket	18

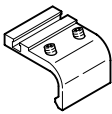
Accessories

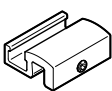
Mounting kit SMBR						
	Material retaining bracket	Material profile	Ambient temperature	Corrosion resistance class CRC ¹⁾	Part no.	Type
	POM	Wrought aluminium alloy	-20 ... 70 °C	2 - Moderate corrosion stress	175096	SMBR-8-25
					175092	SMBR-8-10
					175099	SMBR-8-50
					175091	SMBR-8-8
					175098	SMBR-8-40
					175094	SMBR-8-16
					175095	SMBR-8-20
					175100	SMBR-8-63
					175093	SMBR-8-12
					175097	SMBR-8-32

1) More information at www.festo.com/x/topic/kbk

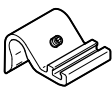
Mounting kit CRSMB					
	For piston diameter	Ambient temperature	Corrosion resistance class CRC ¹⁾	Part no.	Type
	Ø32 - Ø100	-40 ... 90 °C	4 - Very high corrosion stress	525565	CRSMB-8-32/100

1) More information www.festo.com/x/topic/kbk

Mounting kit SMB-8-FENG					
	Size	Note on materials	LABS (PWIS) conformity	Part no.	Type
	8	RoHS-compliant	VDMA24364-B2-L	175706	SMB-8-FENG-50/63
				175707	SMB-8-FENG-80/100
				175705	SMB-8-FENG-32/40

Mounting kit SMB-8-C					
	Material retaining bracket	Tightening torque	Corrosion resistance class CRC ¹⁾	Part no.	Type
	Wrought aluminium alloy, Anodised	0.2 ... 0.6 Nm	3 - high corrosion stress	1806790	SMB-8-C

1) More information www.festo.com/x/topic/kbk

Sensor bracket DASP-M4-...-A						
	Tightening torque	Material housing	Corrosion resistance class CRC ¹⁾	Product weight	Part no.	Type
	0.6 ... 1 Nm	Wrought aluminium alloy, Anodised	3 - high corrosion stress	26.5 g	1451483	DASP-M4-125-A
				41.5 g	1553813	DASP-M4-160-A
				60 g	3015256	DASP-M4-320-A
					1456781	DASP-M4-250-A

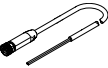
1) More information at www.festo.com/x/topic/kbk

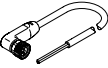
Positioning element SMM						
	Material housing	Type of mounting	Ambient temperature	Corrosion resistance class CRC ¹⁾	Part no.	Type
	Wrought aluminium alloy, Anodised	Clamped in T-slot, Insertable in the slot lengthwise	-40 ... 120 °C	3 - high corrosion stress	547941	SMM-8

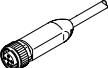
1) More information at www.festo.com/x/topic/kbk

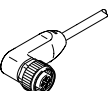
Accessories

Sensor mounting					
	For piston diameter	Type of mounting	Ambient temperature	Part no.	Type
	Diameter 32, Diameter 40, Ø50, Diameter 63	Clamped	-20 ... 120 °C	8174843	DASP-V4-8-A-R1
	Ø80, Ø100, Ø125			8174844	DASP-V4-12-A-R1

Connecting cables socket M8x1, 3-pin, straight socket					
	Electrical connection 1, number of connections/cores	Electrical connection 1, connector system	Cable length	Part no.	Type
	3	M8x1, A-coded, to EN 61076-2-104	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
			5 m	8078224	NEBA-M8G3-U-5-N-LE3

Connecting cables socket M8x1, 3-pin, angled plug socket					
	Electrical connection 1, number of connections/cores	Electrical connection 1, connector system	Cable length	Part no.	Type
	3	M8x1, A-coded, to EN 61076-2-104	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
			5 m	8078231	NEBA-M8W3-U-5-N-LE3

Connecting cables socket M12x1, 5-pin, straight socket					
	Electrical connection 1, number of connections/cores	Electrical connection 1, connector system	Cable length	Part no.	Type
	5	M12x1, A-coded to EN 61076-2-101	2.5 m	8078236	NEBA-M12G5-U-2.5-N-LE3
			5 m	8078237	NEBA-M12G5-U-5-N-LE3

Connecting cables socket M12x1, 5-pin, angled plug socket					
	Electrical connection 1, number of connections/cores	Electrical connection 1, connector system	Cable length	Part no.	Type
	5	M12x1, A-coded to EN 61076-2-101	2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3

Safety clip for ATEX zone					
	Material safety clip	Ambient temperature	Corrosion resistance class CRC ¹⁾	Part no.	Type
	PA	-20 ... 60 °C	3 - high corrosion stress	548068	NEAU-M12-GD
				548067	NEAU-M8-GD

1) More information www.festo.com/x/topic/kbk

Impact protection				
	Type of mounting	Material housing	Part no.	Type
	Screw-clamped, Insertable in the slot from above	Die-cast zinc	8184143	SACC-N8-SP

Accessories

Mounting components				
	Type of mounting	Size of pack	Part no.	Type
	Clamped in T-slot	10	534254	SMBK-8

Inscription labels			
	Material label	Part no.	Type
	PC	541598	ASLR-L-423