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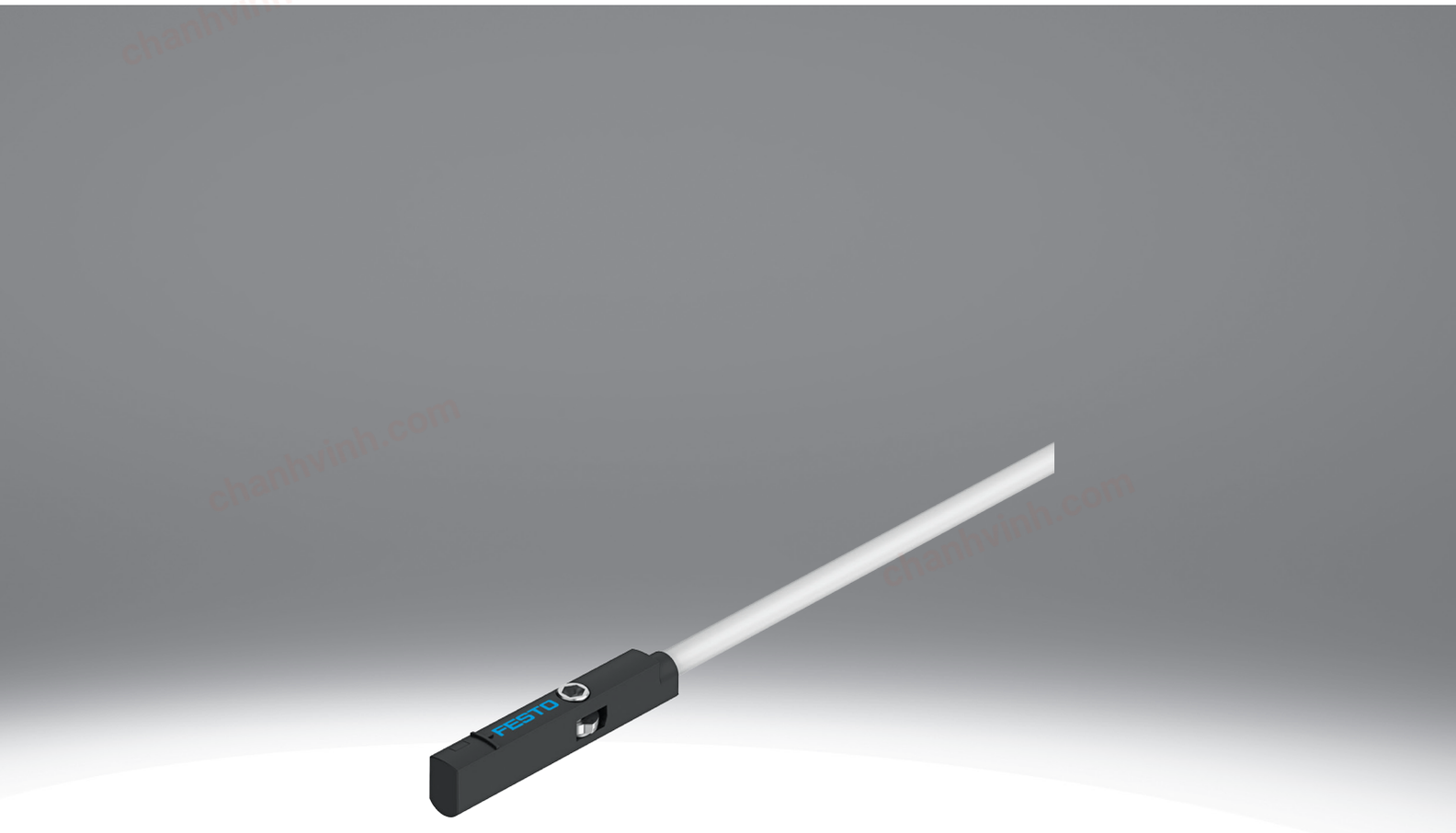
Proximity switch SMT-10M



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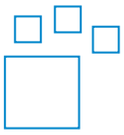
Characteristics

Ordering data - modular system



Configurable product
This product and all its product options can be ordered online via the configurator.

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Type code

001	Series	
SMT	Proximity sensor	

002	Design type	
10M	For C-slot, inserted in slot from above	

003	Switching output	
NS	3-wire NPN N/O contact	
PS	3-wire PNP N/O contact	
ZS	2-wire PNP N/O contact	

004	Rated operating voltage	
24V	24 V	

005	Cable characteristic	
E	Suitable for energy chains/robots	

006	Cable length [m]	
	0.2 ... 30 m	
0,3	0.3 m	
2,5	2.5 m	

007	Display	
L	LED	

008	Cable outlet	
Q	Transverse	
L	Longitudinal	

009	Cable identification	
	With label holder	
N	Without label holder	

010	Connection technology	
OE	Open end	
M8	M8, snap-on flange	
M8D	M8, rotatable thread	
M12	M12, rotatable thread	

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Datasheet

General technical data

Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101	M8x1, A-coded, to EN 61076-2-104	Open end
Design	For C-slot		
Conforms to standard	EN 60947-5-2		
Approval	RCM trademark		
CE mark (see declaration of conformity) [1]	To EU EMC Directive, In accordance with EU RoHS Directive		
UKCA marking (see declaration of conformity)[2]	To UK instructions for EMC, To UK RoHS instructions		
Special characteristics	Oil resistant		
Note on materials	RoHS-compliant, Free of halogen		
Instructions on use	https://www.festo.com/Drive-Sensor-Overview		
LABS (PWIS) conformity	VDMA24364-B2-L		
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)		
Cleanroom class	Element installed statically, no meaningful evaluation possible according to ISO 14644-1		
Corrosion resistance class CRC [3]	2 - Moderate corrosion stress		3 - high corrosion stress

1) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/smt → Support/Downloads.
If the devices are subject to usage restrictions in residential, commercial or light industrial environments, further measures for reducing the emitted interference may be necessary.
2) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/smt → Support/Downloads.
If the devices are subject to usage restrictions in residential, commercial or light industrial environments, further measures for reducing the emitted interference may be necessary.
3) More information www.festo.com/x/topic/kbk

Input signal/measuring element

Measured variable	Position
Measuring principle	Magneto-resistive
Ambient temperature	-40 ... 70°C
Ambient temperature with moving cable	-20 ... 70°C

Switching output

Switching output	NPN	PNP	Non-contacting, 2-wire
Electrical connection 1, connector system	M8x1, A-coded, to EN 61076-2-104, Open end	M12x1, A-coded to EN 61076-2-101, M8x1, A-coded, to EN 61076-2-104, Open end	Open end
Switching element function	N/O contact		
Repetition accuracy	0.2 mm		
Switch-on time	≤1.3 ms		≤1 ms
Switch-off time	4.2 ... 7.3 ms		≤1 ms
Max. switching frequency	130 Hz		150 Hz
Max. output current	100 mA		
Max. output current using mounting kits	50 mA		
Max. switching capacity DC	2.8 W		2.4 W
Max. switching capacity DC using mounting kits	1.5 W		1.2 W
Voltage drop	≤1.5 V	≤1.7 V	≤6 V

Output, additional data

Short circuit current rating	yes
Overload protection	Available

Electronics

Switching output	NPN	PNP	NPN, PNP, Non-contacting, 2-wire	Non-contacting, 2-wire
Rated operational voltage DC	24 V			
Operational voltage range DC	5 ... 30 V			7 ... 30 V
Reverse polarity protection	For all electrical connections			

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Datasheet

Electromechanics		
Electrical connection 1, connection type	Cable	Cable with plug
Electrical connection 1, connector system	Open end	M12x1, A-coded to EN 61076-2-101, M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	2, 3	3
Electrical connection 1, type of mounting	–	Screw-type lock, Rotatable
Connection outlet orientation	In-line, Lateral	
Test conditions cable	Bending strength: to Festo standard, Test conditions on request, Torsional strength: > 300,000 cycles, ±270°/0.1 m, Energy chain: > 5 million cycles, bending radius 28 mm	
Cable length	2.5 m	0.3 m
Cable characteristic	Suitable for energy chains/robot applications	

Mechanics	
Type of mounting	Screw-clamped, Insertable in the slot from above
Max. tightening torque	0.4 Nm
Mounting position	optional
Material housing	PA-reinforced, High-alloy stainless steel
Material cable sheath	TPE-U(PUR)

Display/operation	
Switching status indication	Yellow LED

Immission/emission	
Ambient temperature with moving cable	-20 ... 70°C
Degree of protection	IP65, IP68

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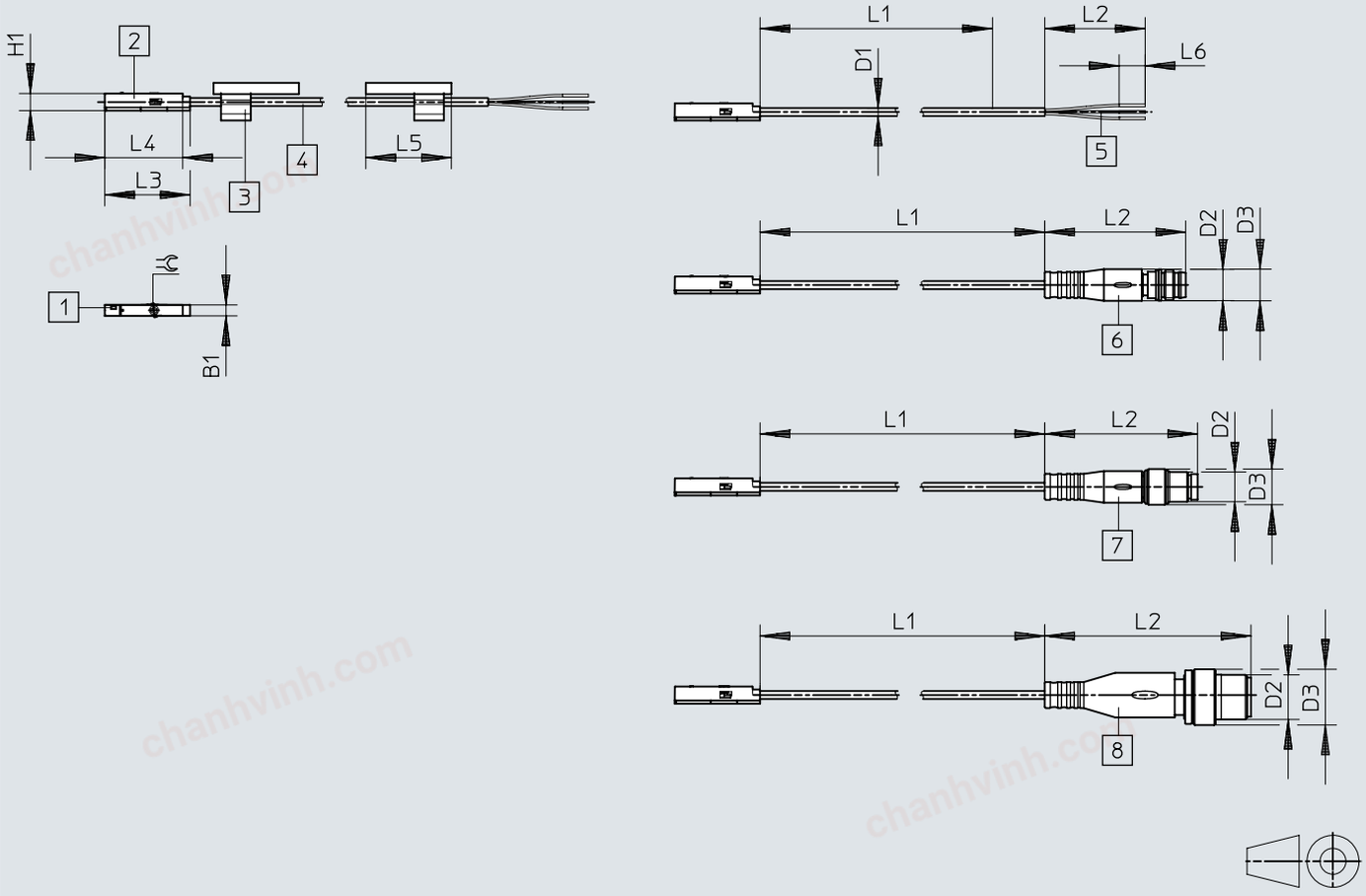
Dimensions

Dimensions – SMT-10M-...-L, outlet direction lengthwise connection Download CAD data www.festo.com



[1] Yellow light emitting diode
[2] SMT-10M
[3] Inscription label holder
[4] Connecting cables
[5] Cable open end
[6] Plug M8x1, snap collar
[7] Plug M8x1, rotatable thread
[8] Plug M12x1
[9] L1 cable length

	B1	D1 ø	D2	D3 ø	H1	L2	L3	L4	L5	L6	L7	⌀
SMT-10M-...-OE	2,9	2,15	–	–	4,6	50	22,9	20,9	23	50	7	1,5
SMT-10M-...-M8D			M8x1	8,5		32,7					–	
SMT-10M-...-M8			M8x1	9,6		41,1					–	
SMT-10M-...-M12			M12x1	15		55,5					–	

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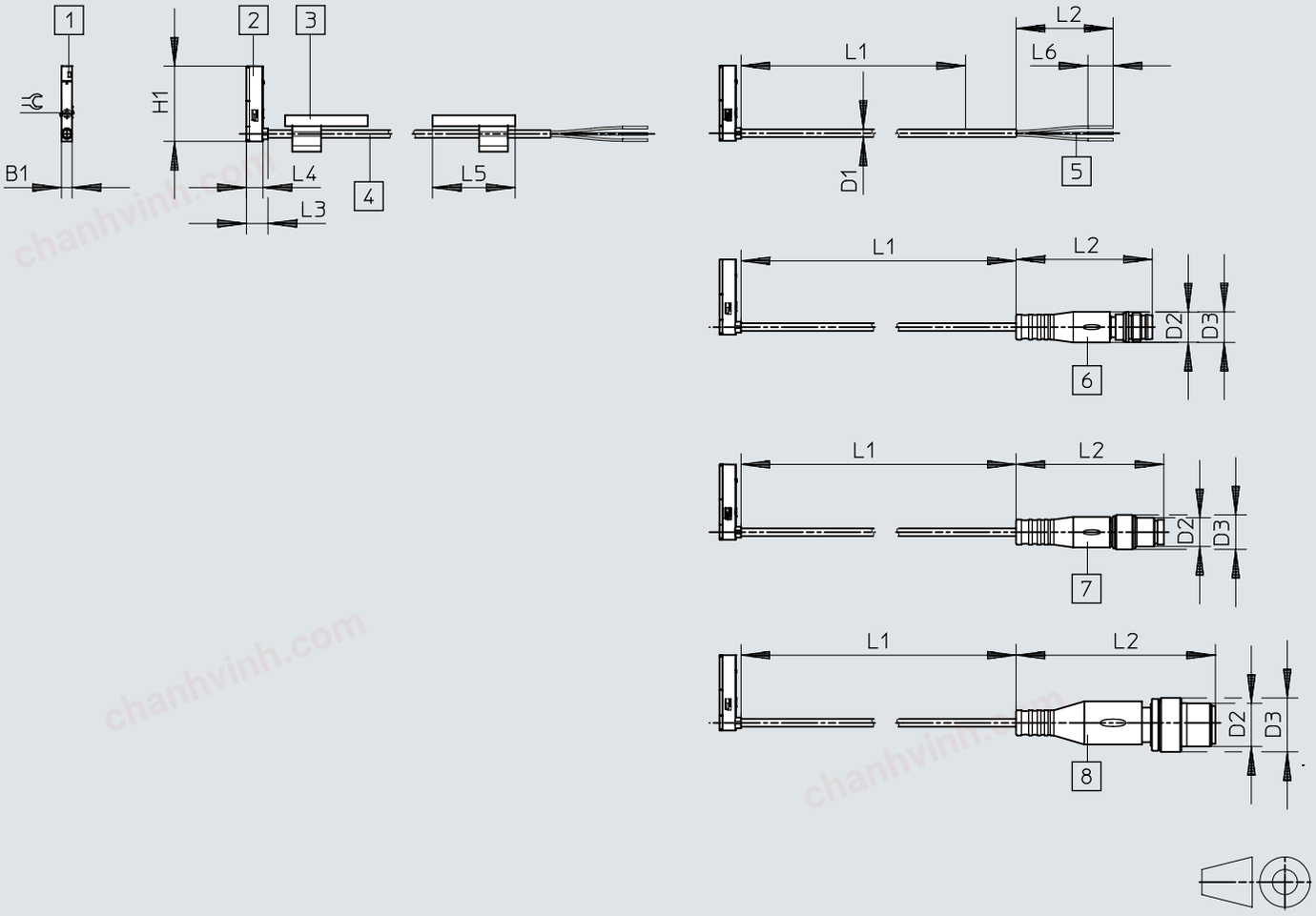
Dimensions

Dimensions – SMT-10M-...-Q, outlet direction lateral connection Download CAD data www.festo.com



[1] Yellow light emitting diode
[2] SMT-10M
[3] Inscription label holder
[4] Connecting cables
[5] Cable open end
[6] Plug M8x1, snap collar
[7] Plug M8x1, rotatable thread
[8] Plug M12x1
[9] L1 cable length

	B1	D1 ø	D2	D3 ø	H1	L2	L3	L4	L5	L6	L7	⫷
SMT-10M-...-OE	2,9	2,15	–	–	20,9	50	6	4,6	23	50	7	1,5
SMT-10M-...-M8D			M8x1	8,5		32,7					–	
SMT-10M-...-M8			M8x1	9,6		41,1					–	
SMT-10M-...-M12			M12x1	15		55,5					–	

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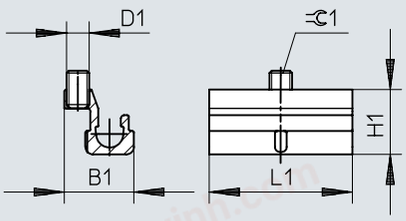
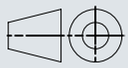
Dimensions

Dimensions – Mounting SMBN-10 Download CAD data www.festo.com





	D1	B1	H1	L1	⫃1
SMBN-10	M3	9,3	8,6	19	1,5

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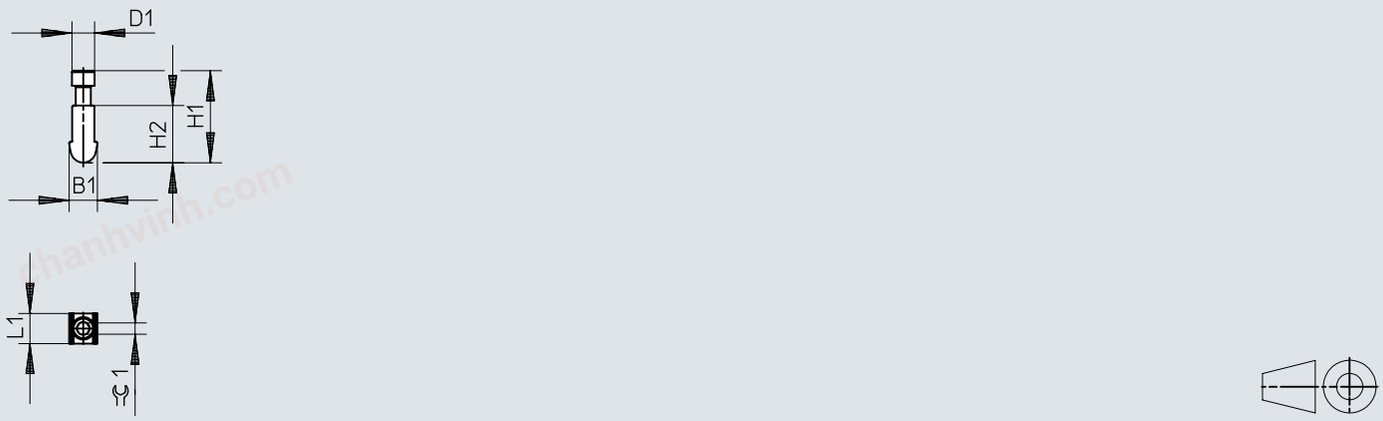
Dimensions

Dimensions – Positioning element SMM

Download CAD data www.festo.com



	B1	D1	H1	H2	L1	⊆1
SMM-10	3,75	3,0	12,23	7,6	4,0	1,5

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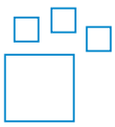
Ordering data

Ordering data

	Switching output	Cable length	Product weight	Part no.	Type
	NPN	0.3 m	6.7 g	**551380**	**SMT-10M-NS-24V-E-0,3-Q-M8D**
				551379	**SMT-10M-NS-24V-E-0,3-L-M8D**
		2.5 m	16.8 g	**551377**	**SMT-10M-NS-24V-E-2,5-L-OE**
				551378	**SMT-10M-NS-24V-E-2,5-Q-OE**
	PNP	0.3 m	6.7 g	**551375**	**SMT-10M-PS-24V-E-0,3-L-M8D**
				551376	**SMT-10M-PS-24V-E-0,3-Q-M8D**
			14 g	**8152201**	**SMT-10M-PS-24V-E-0,3-L-M12**
		2.5 m	16.8 g	**551374**	**SMT-10M-PS-24V-E-2,5-Q-OE**
				551373	**SMT-10M-PS-24V-E-2,5-L-OE**
	Non-contacting, 2-wire		14.6 g	**551383**	**SMT-10M-ZS-24V-E-2,5-Q-OE**
				551382	**SMT-10M-ZS-24V-E-2,5-L-OE**

Modular product system – Ordering information

	Design	Switching output	Part no.	Type
	For C-slot	NPN, PNP, Non-contacting, 2-wire	**551372**	**SMT-10M**

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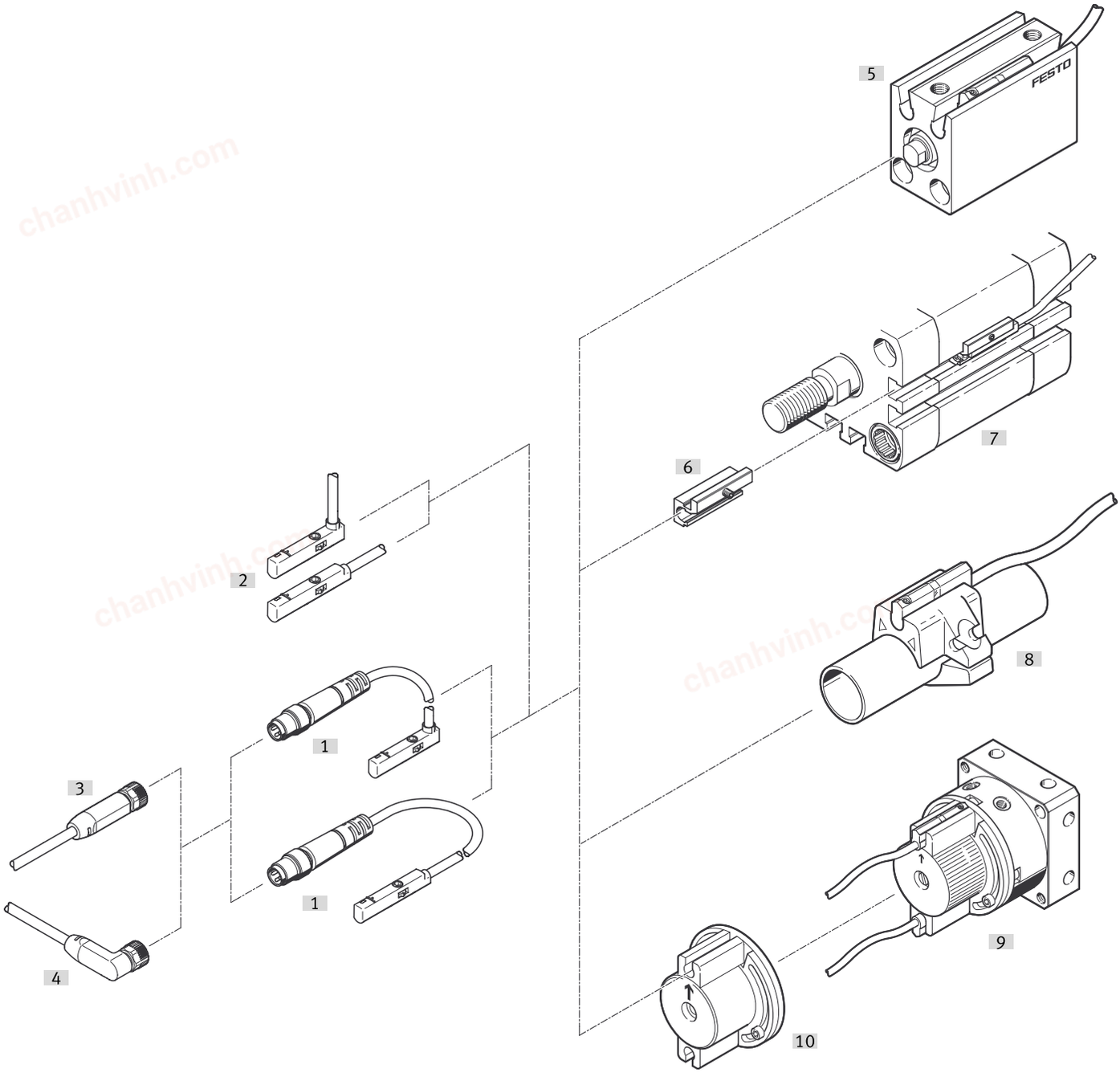
Peripherals

Peripherals overview



Accessories			→ Link
	Type/order code	Description	
[1]	Proximity switch SMT-10M-...-M...	Can be inserted into the slot from above, flush with the cylinder profile, with cable and plug	🔗 smt-10m
[2]	Proximity switch SMT-10M-...-OE	Can be inserted into the slot from above, flush with the cylinder profile, with cable	🔗 smt-10m
[3]	Connecting cable NEBA-M8	Straight socket	12
[4]	Connecting cable NEBA-M8	Angled socket	12
[5]	Drives with round slot	-	🔗 –
[6]	Mounting kit SMBN-10	For mounting proximity switches on drives with T-slot	12
[7]	Drives with T-slot	-	🔗 –
[8]	Round cylinder	-	🔗 –
[9]	Semi-rotary drive DSM-B	-	🔗 dsm
[10]	Mounting kit WSM-...-SME-10	Mounting kit for mounting proximity switches on semi-rotary drive DSM	12

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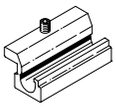
Accessories

Mounting kit SMBN-10

	Size	Part no.	Type
	10	**537809**	**SMBN-10**

Positioning element SMM

	Note on materials	Part no.	Type
	RoHS-compliant	**547942**	**SMM-10**

Connecting cable NEBA-M8

	Cable structure	Cable length	Product weight	Part no.	Type
	3 x 0.25 mm²	2.5 m	50 g	**8078230**	**NEBA-M8W3-U-2.5-N-LE3**
				8078223	**NEBA-M8G3-U-2.5-N-LE3**
		5 m	96 g	**8078231**	**NEBA-M8W3-U-5-N-LE3**
				8078224	**NEBA-M8G3-U-5-N-LE3**

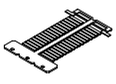
Mounting kit for semi-rotary drive DSM

	Size	Part no.	Type
	6	**173205**	**WSM-6-SME-10**
	8	**173206**	**WSM-8-SME-10**
	10	**173207**	**WSM-10-SME-10**

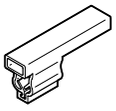
Mounting component SMBK-10

	Design	Type of mounting	Part no.	Type
	For C-slot	Clamped in C-slot	**534255**	**SMBK-10**

Inscription labels

	Size	Part no.	Type
	4x23 mm	**541598**	**ASLR-L-423**

Inscription label holder

	Length	Width	Height	Size of pack	Part no.	Type
	23 mm	5.4 mm	10.1 mm	100	**8078305**	**NEAU-LH-1**