

Position sensors SMH-S1, for grippers

Product overview

FESTO



- Position sensors, adapted to Festo grippers
- Freely selectable switching points
- 3 gripper positions can be detected using an evaluation unit

Detailed product information

→ www.festo.com/catalogue/smh

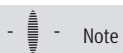
Product overview							
Design	Type of mounting	Measuring principle	Operating voltage range	Analogue output	Switch output	Switching element function	→ Page/Internet
Position sensor SMH-S1							
For gripper	Screwed to gripper	Magnetic Hall	24 V DC	–	–	–	2
Evaluation unit SMH-AE1							
For position sensor SMH-S1	With mounting hole	–	24 V DC	–	3x PNP 3x NPN	N/O contact	3
Signal converter SVE4							
For position sensor SMH-S1	With mounting hole	–	10 ... 30 V DC	–	2x PNP 2x NPN	Switchable	sve4

Key features

The position sensor SMH-S1 has been specially developed for use with Festo grippers. An analogue electrical signal is generated in the proximity sensor

depending on the gripper position. The conversion to 3 digital output signals (corresponding to 3 gripper jaw

positions) takes place via the signal converters SVE4 or the evaluation units SMH-AE.



Note

Sensors that detect magnetic fields, such as position sensors SMH, must not be secured onto the drive using

mountings made from ferritic materials, as this can lead to malfunction.

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Type codes, technical data – Position sensors

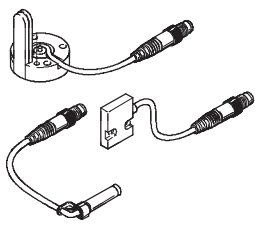
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SMH-S1	HGP06

Type	
SMH-S1	Position sensor for gripper

Associated grippers	
HGD16	Three-point gripper HGD-16
HGP06	Parallel gripper HGP-06
HGR10	Radial gripper HGR-10
HGW10	Angle gripper HGW-10
HGPP-10/12	Parallel gripper HGPP-10 and HGPP-12
HGPP-16	Parallel gripper HGPP-16
HGPP20/25	Parallel gripper HGPP-20 and HGPP-25
HGPP-32	Parallel gripper HGPP-32

Technical data	
Design	
Constructional design	Adapted for grippers
Type of mounting	Screwed to gripper
Electrical data	
Electrical connection	Cable with plug M8x1, 4-pin
Cable length [m]	0.5
Protection against short circuit	No
Protection against polarity reversal	No
Protection class	IP65
Operating and environmental conditions	
Ambient temperature [°C]	5 ... 60
CE mark (see declaration of conformity)	In accordance with EU EMC directive
Materials	
Housing	Polyamide
Cable sheath	Polyurethane

Ordering data			
	Associated grippers	Part No.	Type
	HGD-16-A	175 713	SMH-S1-HGD16
	HGP-06-A	175 710	SMH-S1-HGP06
	HGR-10-A	175 712	SMH-S1-HGR10
	HGW-10-A	175 711	SMH-S1-HGW10
	HGPP-10, HGPP-12	189 040	SMH-S1-HGPP10/12
	HGPP-16	189 041	SMH-S1-HGPP16
	HGPP-20, HGPP-25	189 042	SMH-S1-HGPP20/25
	HGPP-32	526 895	SMH-S1-HGPP32

-  - Note

For position sensors
SMH-S1-HG...: adapted signal converters SVE4-HS
→ Internet: sve4-hs.

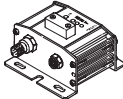
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Type codes, technical data – Evaluation unit

		SMH-AE1	–	PS3	–	M12
Type						
SMH-AE1	Evaluation unit					
Switch output						
PS3	N/O contact, PNP, 3 switch outputs					
NS3	N/O contact, NPN, 3 switch outputs					
Electrical connection						
M12	Plug M12x1, 5-pin					

Technical data		
Design		
Type of mounting		Via through-hole
Switching status display		Yellow LED
Ready status display		Green LED
Electrical data		
Switch output		PNP
		NPN
Electrical connection	Input	4-pin
	Output	Plug M12x1, 5-pin
Operating voltage range		[V DC] 24
Protection class		IP53
Operating and environmental conditions		
Ambient temperature		[°C] 5 ... 60
CE mark (see declaration of conformity)		In accordance with EU EMC directive
Materials		
Housing		Wrought aluminium alloy

Ordering data			
	Switch output	Part No.	Type
	PNP	175 708	SMH-AE1-PS3-M12
	NPN	175 709	SMH-AE1-NS3-M12

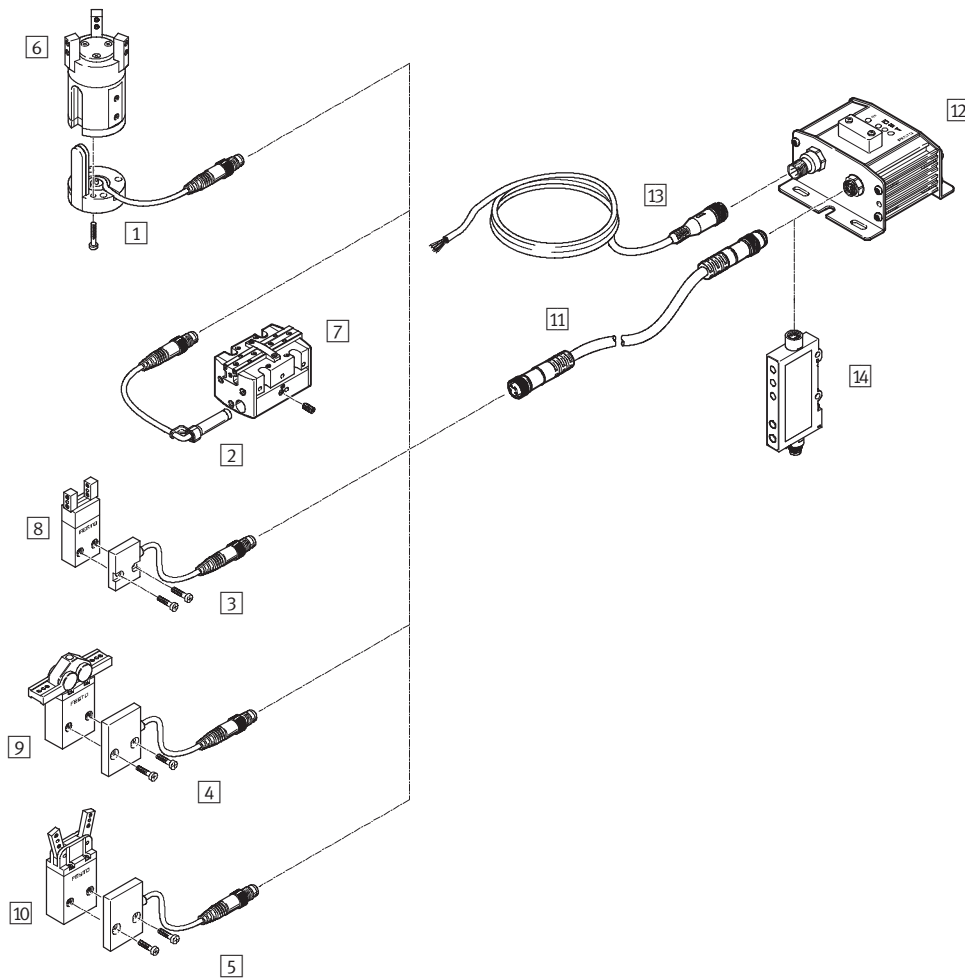
-  - Note

For position sensors
SMH-S1-HG...: adapted signal con-
verters SVE4-HS
➔ Internet: sve4-hs.

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Peripherals overview

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Accessories			→ Page/Internet
Position sensors			
1	SMH-S1-HGD16		2
2	SMH-S1-HGPP		
3	SMH-S1-HGP06		
4	SMH-S1-HGR10		
5	SMH-S1-HGW10		

Accessories		➔ Page/Internet
Associated grippers		
6	Three-point gripper HGD-16-A	gripper
7	Parallel gripper HGPP	
8	Parallel gripper HGP-06-A	
9	Radial gripper HGR-10-A	
10	Angle gripper HGW-10-A	
Accessories		
11	Connecting cable KSMH-1-M8-2-M8	4
12	Evaluation unit SMH-AE1	3
13	Connecting cable NEBU-M12G5	4
14	Signal converter SVE4	sve4

Ordering data – Connecting cables				Technical data → Internet: ksmh
	Number of wires	Cable length [m]	Part No.	Type
Straight plug socket				
	4	2.0	175 714	KSMH-1-M8-2-M8

Ordering data – Connecting cables				Technical data → Internet: nebu
	Number of wires	Cable length [m]	Part No.	Type
Straight plug socket				
	5	2.5	541 330	NEBU-M12G5-K-2.5-LE5
		5	541 331	NEBU-M12G5-K-5-LE5