

Flow sensors SFE1-LF-...

Product overview



- Flow measuring range 0.5 ... 10 or 10 ... 200 l/min
- Switch outputs 2x PNP or 2x NPN
- Analogue output 0 ... 10 V or 4 ... 20 mA
- Freely selectable pulse output for consumption measurement
- Illuminated LCD display
- Wide variety of mounting options

Detailed product information

➔ www.festo.com/catalogue/sfe1-lf

Product overview						
Method of measurement	Measured variable	Type of mounting	Flow measuring range [l/min]	Pneumatic connection	Electrical output	
					Digital	Analogue
Flow sensor, thermal	Flow Consumption	Via through-hole Via DIN H-rail Via wall/surface bracket	0.5 ... 10	Push-in connector for tubing O.D. 6 mm	2x PNP	0 ... 10 V
						4 ... 20 mA
				2x NPN	0 ... 10 V	
				4 ... 20 mA		
			10 ... 200	Push-in connector for tubing O.D. 8 mm	2x PNP	0 ... 10 V
		4 ... 20 mA				
					2x NPN	0 ... 10 V
						4 ... 20 mA

Flow sensors SFE1-LF

Type codes

SFE1 - LF - F200 - H Q8 - P2 I - M12

Type	
SFE1	Flow sensor

Design	
LF	Low Flow

Flow measuring range [l/min]	
F10	0.5 ... 10
F200	10 ... 200

Mounting	
H	DIN H-rail mounting
W	Wall or surface mounting

Pneumatic connection	
Q6	Push-in connector QS-6
Q8	Push-in connector QS-8

Switch output	
P2	2x PNP
N2	2x NPN

Analogue output	
U	0 ... 10 V
I	4 ... 20 mA

Electrical connection	
M12	Plug M12x1, 5-pin

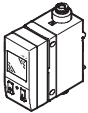
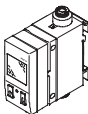
Flow sensors SFE1-LF

Technical data

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Technical data			
Design			
Flow measuring range	[l/min]	0.5 ... 10	10 ... 200
Pneumatic connection		QS-6	QS-8
Type of display		Illuminated LCD (optimised display)	
Accuracy ¹⁾		+/- (3% o.m.v. + 0.3% FS)	
Electrical data			
Switch output		2x PNP	
		2x NPN	
Analogue output	[V]	0 ... 10	
	[mA]	4 ... 20	
Max. output current	[mA]	100	
Switching element function		N/O contact	
		N/C contact	
Switching function		Threshold comparator Window comparator	
Operating voltage range DC	[V]	15 ... 30	
Electrical connection		Straight plug, M12x1, 5-pin	
Protection against short circuit		Yes	
Operating and environmental conditions			
Operating pressure	[bar]	0 ... 10	
Operating medium		Filtered compressed air, unlubricated, grade of filtration 5µm Nitrogen Air quality class 3:4:1 to DIN ISO 8573-1	Filtered compressed air, unlubricated, grade of filtration 40µm Nitrogen Air quality class 5:4:3 to DIN ISO 8573-1
Ambient temperature	[°C]	0 ... 50	
CE mark (see declaration of conformity)		In accordance with EU EMC directive	
Protection class		IP65	
Materials			
Housing		Reinforced polyamide	

1) % o.m.v. = % of measured value
% FS = % of measuring range's final value (full scale)

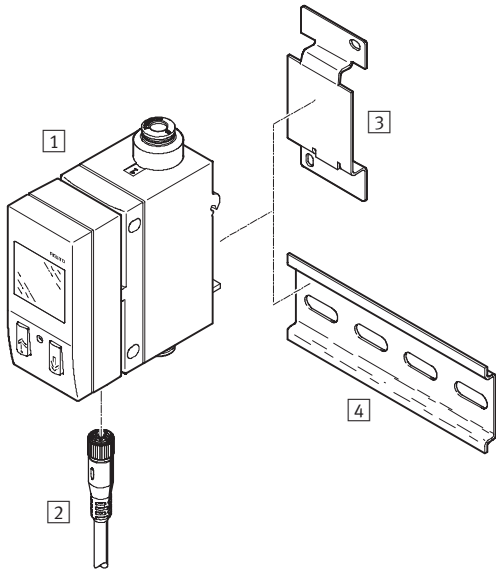
Ordering data						
Variant	Flow measuring range [l/min]	Analogue output	Switch output			
			2x PNP		2x NPN	
			Part No.	Type	Part No.	Type
DIN H-rail mounting						
	0.5 ... 10	0 ... 10 V	537 867	SFE1-LF-F10-HQ6-P2U-M12	537 866	SFE1-LF-F10-HQ6-P2I-M12
		4 ... 20 mA	537 869	SFE1-LF-F10-HQ6-N2U-M12	537 868	SFE1-LF-F10-HQ6-N2I-M12
	10 ... 200	0 ... 10 V	537 875	SFE1-LF-F200-HQ8-P2U-M12	537 874	SFE1-LF-F200-HQ8-P2I-M12
		4 ... 20 mA	537 877	SFE1-LF-F200-HQ8-N2U-M12	537 876	SFE1-LF-F200-HQ8-N2I-M12
Wall or surface mounting						
	0.5 ... 10	0 ... 10 V	537 871	SFE1-LF-F10-WQ6-P2U-M12	537 870	SFE1-LF-F10-WQ6-P2I-M12
		4 ... 20 mA	537 873	SFE1-LF-F10-WQ6-N2U-M12	537 872	SFE1-LF-F10-WQ6-N2I-M12
	10 ... 200	0 ... 10 V	537 879	SFE1-LF-F200-WQ8-P2U-M12	537 878	SFE1-LF-F200-WQ8-P2I-M12
		4 ... 20 mA	537 881	SFE1-LF-F200-WQ8-N2U-M12	537 880	SFE1-LF-F200-WQ8-N2I-M12

Flow sensors SFE1-LF

Peripherals overview, sample applications



Peripherals overview



Accessories

1	Flow sensor SFE1-LF
2	Connecting cable NEBU-M12G5 with straight socket
3	Adapter plate SDE1-...-W-... (included in the scope of delivery with SFE1-LF-F...-W...)
4	Mounting rail to DIN EN 50022

Ordering data – Connecting cables

Technical data → 169

	Number of wires	Cable length [m]	Part No.	Type
M12x1, straight socket				
	5	2.5	541 330	NEBU-M12G5-K-2.5-LE5
		5	541 331	NEBU-M12G5-K-5-LE5

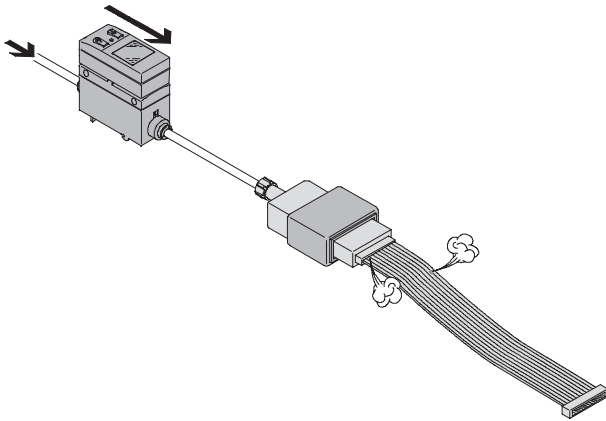
Ordering data – Accessories

	Part No.	Type
	194 297	SDE1-...-W-...

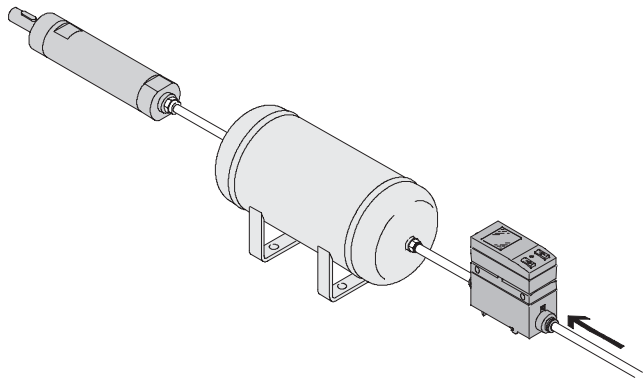
Sensors
Flow sensors

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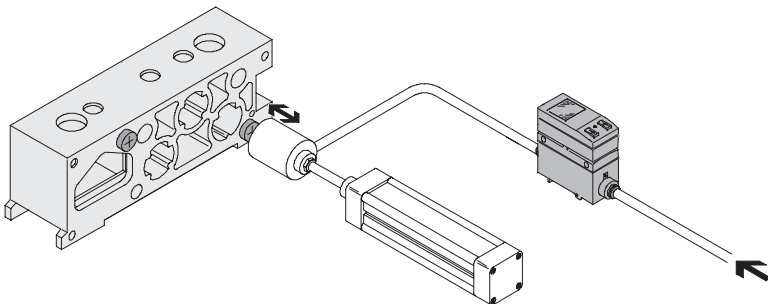
Application examples



- Leak testing of cable sheaths and waterproof push-in connectors



- Monitoring an air motor



- Checking for presence of screws inserted in a workpiece