

Fork light barriers SOOF

Product range overview

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- Transmitter and receiver in one compact housing
- Fork gap 30 ... 120 mm
- Minimum detectable object diameter 0.3 mm
- Maximum switching frequency 4,000 Hz
- 2 housing versions, metal or polycarbonate
- Minimum installation effort

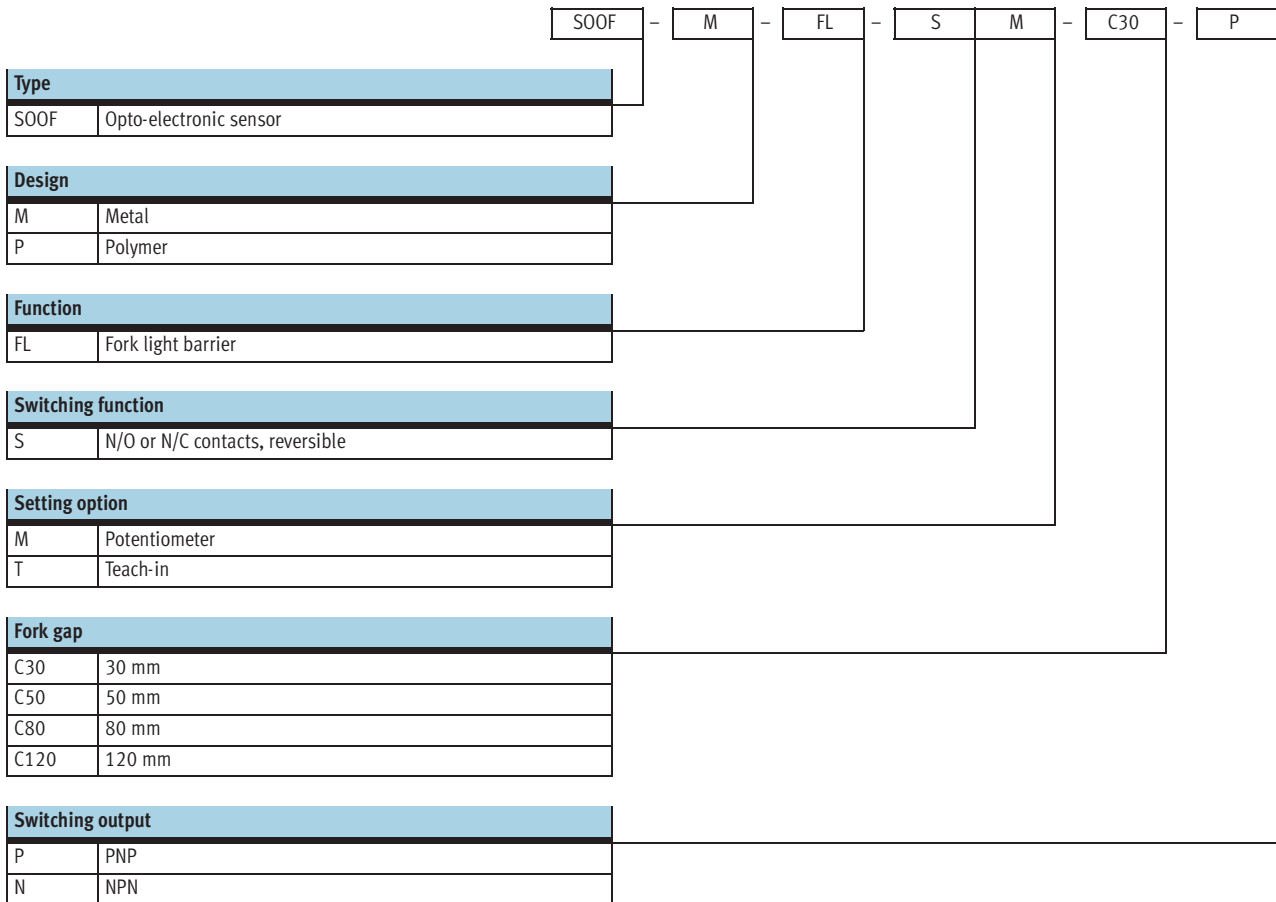
Detailed product information

→ www.festo.com/catalogue/soof

Product range overview									
Method of measurement	Type	Fork gap [mm]	Min. object diameter [mm]	Max. output current [mA]	Max. switching frequency [Hz]	Switching output	Setting options		
Metal									
Fork light barrier	SOOF-M-...-C30	30	0.5	200	4,000	PNP NPN	Potentiometer		
	SOOF-M-...-C50	50	0.5	200	4,000	PNP NPN			
	SOOF-M-...-C80	80	0.5	200	4,000	PNP NPN			
	SOOF-M-...-C120	120	2.0	200	2,000	PNP NPN			
	Polymer								
	Fork light barrier	SOOF-P-...-C30	30	0.5	100	2,000		PNP NPN	Teach-in
		SOOF-P-...-C50	50	0.3	100	2,000		PNP NPN	
		SOOF-P-...-C80	80	0.5	100	2,000		PNP NPN	
SOOF-P-...-C120		120	0.4	100	2,000	PNP NPN			

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Type codes



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Technical data

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General technical data									
Design		Metal				Polymer			
Fork gap	[mm]	30	50	80	120	30	50	80	120
Method of measurement		Fork light barrier				Fork light barrier			
Size	[mm]	Fork 30x35	Fork 50x55	Fork 80x55	Fork 120x60	Fork 30x35	Fork 50x55	Fork 80x55	Fork 120x60
Minimum object diameter	[mm]	0.5	0.5	0.5	2.0	0.5	0.3	0.5	0.4
Repetition accuracy	[mm]	0.02	0.04	0.06	0.06	0.03			
Hysteresis	[mm]	≤ 0.25				≤ 0.25			
Light type		Red				Red			
Setting options		Potentiometer				Teach-in			
Switching status display		Yellow LED				Yellow LED			
Ready status display		–				Green LED			
Product weight	[g]	75	110	130	260	20	30	35	40

Electrical data									
Design		Metal				Polymer			
Fork gap	[mm]	30	50	80	120	30	50	80	120
Max. switching frequency	[Hz]	4,000	4,000	4,000	2,000	2,000			
Operating voltage range	[V DC]	10 ... 35				10 ... 30			
Residual ripple	[%]	±5				10			
Max. output current	[mA]	200				100			
Idle current	[mA]	30	32.5	30	45	30			
Electrical connection		Plug M8x1, 3-pin				Plug M8x1, 3-pin			
Switching element function		Switchable				Switchable			
Protection against short circuit		Pulsed				Pulsed			
Protection against polarity reversal		For operating voltage connections				For operating voltage connections			
Surge capacity	[kV]	0.8				0.8			
Insulation voltage	[V]	50				50			
Protection class		IP67				IP67			

Operating and environmental conditions	
Ambient temperature	[°C] –10 ... +60
Degree of contamination	3
CE marking (see declaration of conformity)	As per EU EMC directive
Certification	c UL us listed (OL) C Tick

Materials		
Design		Polymer
Housing	Die-cast zinc, painted	Polycarbonate
Note on materials	Free of copper and PTFE	–
	Contains paint-wetting impairment substances (PWIS)	–
	RoHS-compliant	RoHS-compliant

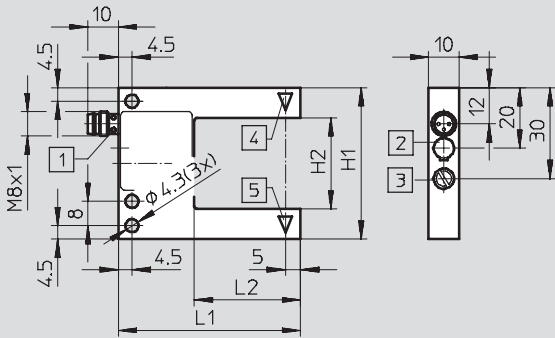
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Technical data

Dimensions – Metal

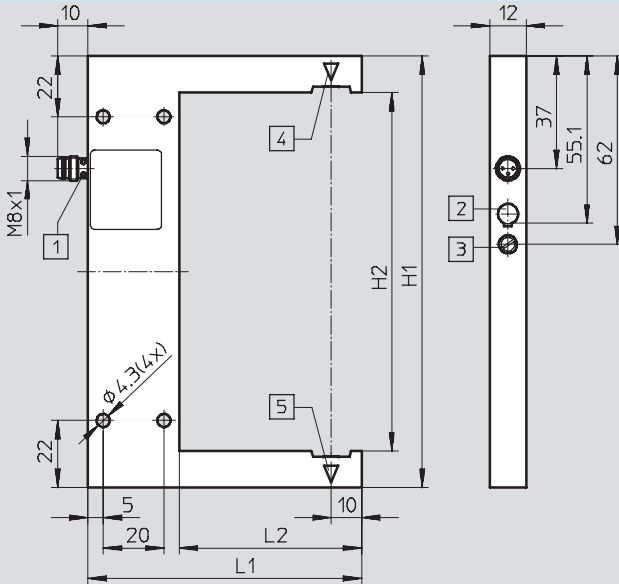
Download CAD data → www.festo.com

Fork gap 30 ... 80



- 1 Switching status display: yellow LED
- 2 N/O or N/C, switchable
- 3 Potentiometer
- 4 Transmitter
- 5 Receiver

Fork gap 120



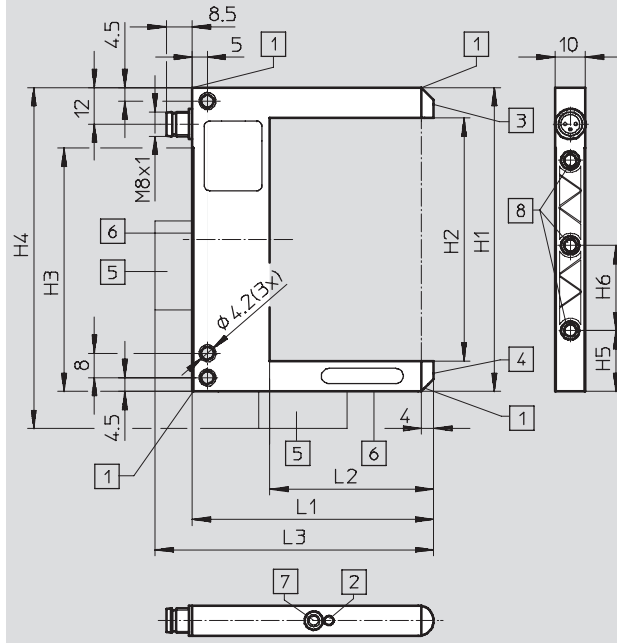
- 1 Switching status display: yellow LED
- 2 N/O or N/C, switchable
- 3 Potentiometer
- 4 Transmitter
- 5 Receiver

Fork gap	H1	L1	L2
H2			
30	50	60	35
50	70	80	55
80	90	80	55
120	144	90	60

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Technical data

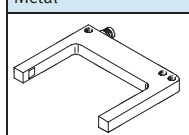
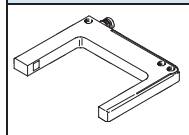
Dimensions – Polymer Download CAD data → www.festo.com



- 1 Switching status display: yellow LED
- 2 Operating status display: green LED
- 3 Receiver
- 4 Transmitter
- 5 Mounting SAMH must be ordered separately as an accessory → 6
- 6 Dovetail for mounting SAMH
- 7 Teach-in key
- 8 Threaded insert M4, max. screw-in depth 6 mm

Fork gap H2	H1	H3	H4 ¹⁾	H5	H6	L1	L2	L3 ¹⁾
30	50	30	62.2	20	–	59.5	34	71.7
50	70	50	82.2	20	28	79.5	54	91.7
80	100	80	112.2	20	2x28	79.5	54	91.7
120	140	120	152.2	20	3x28	79.5	54	91.7

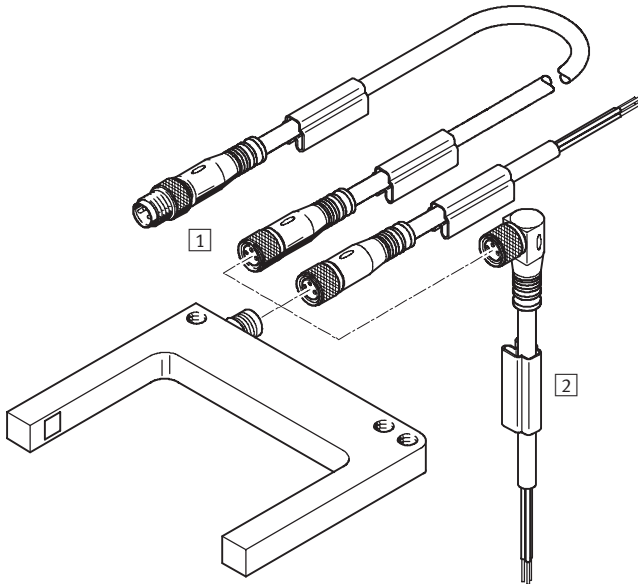
1) With mounting SAMH

Ordering data				
Design	Fork gap [mm]	Switching output	Part No.	Type
Metal				
	30	PNP	553 553	SOOF-M-FL-SM-C30-P
		NPN	553 554	SOOF-M-FL-SM-C30-N
	50	PNP	553 555	SOOF-M-FL-SM-C50-P
		NPN	553 556	SOOF-M-FL-SM-C50-N
	80	PNP	553 557	SOOF-M-FL-SM-C80-P
		NPN	553 558	SOOF-M-FL-SM-C80-N
120	PNP	553 559	SOOF-M-FL-SM-C120-P	
	NPN	553 560	SOOF-M-FL-SM-C120-N	
Polymer				
	30	PNP	553 561	SOOF-P-FL-ST-C30-P
		NPN	553 562	SOOF-P-FL-ST-C30-N
	50	PNP	553 563	SOOF-P-FL-ST-C50-P
		NPN	553 564	SOOF-P-FL-ST-C50-N
	80	PNP	553 565	SOOF-P-FL-ST-C80-P
		NPN	553 566	SOOF-P-FL-ST-C80-N
	120	PNP	553 567	SOOF-P-FL-ST-C120-P
		NPN	553 568	SOOF-P-FL-ST-C120-N

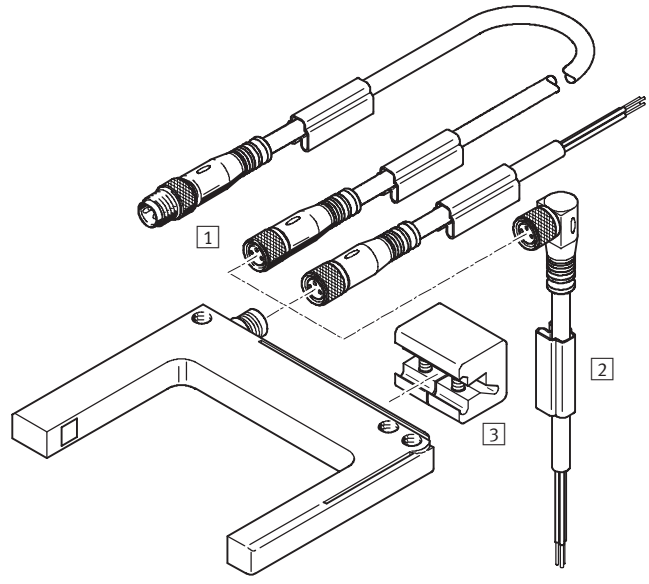
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Peripherals overview, accessories

Metal







Polymer





Accessories	→ Page/ Internet
1 Connecting cables M8x1 NEBU	6
2 Inscription label holder (included in scope of delivery NEBU)	-

Accessories	→ Page/ Internet
3 Mounting SAMH	6
- Inscription label ASLR-423	6

Ordering data – Connecting cables			Technical data → Internet: nebu	
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No. Type
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 333 NEBU-M8G3-K-2.5-LE3
			5	541 334 NEBU-M8G3-K-5-LE3
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 338 NEBU-M8W3-K-2.5-LE3
			5	541 341 NEBU-M8W3-K-5-LE3
	Straight socket, M8x1, 3-pin	Straight plug, M8x1, 3-pin	0.5	541 346 NEBU-M8G3-K-0.5-M8G3
			1	541 347 NEBU-M8G3-K-1-M8G3
			2.5	541 348 NEBU-M8G3-K-2.5-M8G3
			5	541 349 NEBU-M8G3-K-5-M8G3

 **Note**
 For more connecting cables see modular product system NEBU
 → Internet: nebu

Ordering data – Mounting	
Part No.	Type
 553 569	SAMH-G3-Q

Ordering data – Inscription labels	
Part No.	Type
 541 598	ASLR-423