

Fork light barriers S00F

FESTO



Fork light barriers SOOF

Product range overview

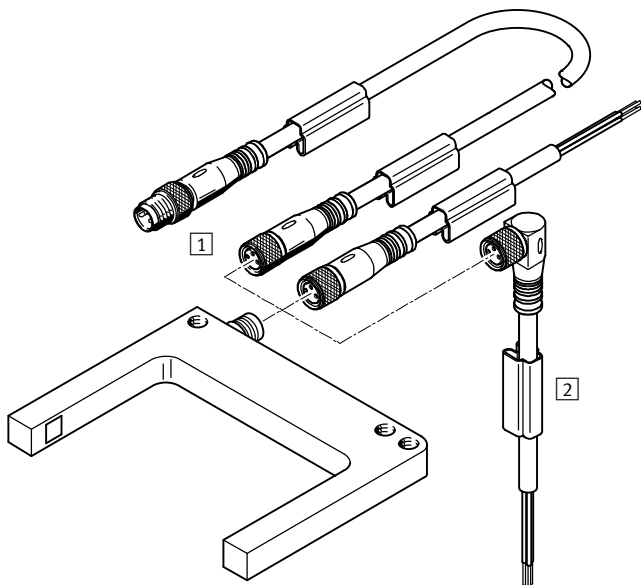


Method of measurement		Size [mm]	Min. object diameter [mm]	Max. switching frequency [Hz]	Switching output	Type of light	→ Page/ Internet
Metal							
Fork light barrier	SOOF-M-...-C30	Fork 30x35	0.5	4,000	PNP	Red	5
					NPN		
	SOOF-M-...-C50	Fork 50x55	0.5	4,000	PNP		
					NPN		
	SOOF-M-...-C80	Fork 80x55	0.5	4,000	PNP		
					NPN		
	SOOF-M-...-C120	Fork 120x60	2.0	2,000	PNP		
					NPN		
Polymer							
Fork light barrier	SOOF-P-...-C30	Fork 30x35	0.5	2,000	PNP	Red	5
					NPN		
	SOOF-P-...-C50	Fork 50x55	0.3	2,000	PNP		
					NPN		
	SOOF-P-...-C80	Fork 80x55	0.5	2,000	PNP		
					NPN		
	SOOF-P-...-C120	Fork 120x60	0.4	2,000	PNP		
					NPN		

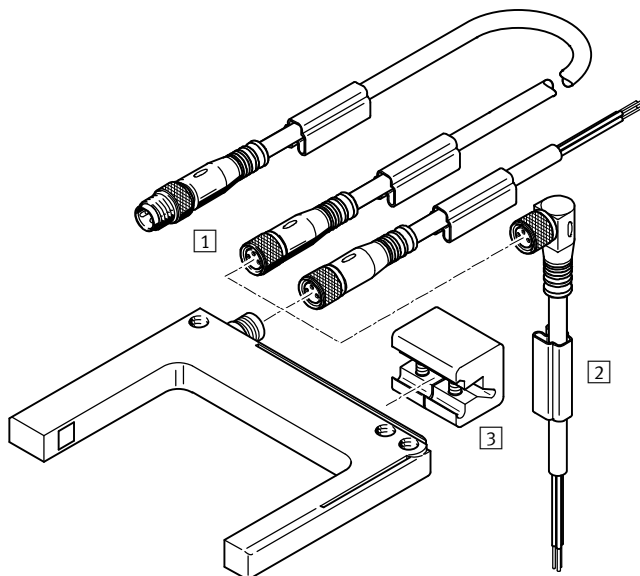
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Overview of peripherals

Metal



Polymer

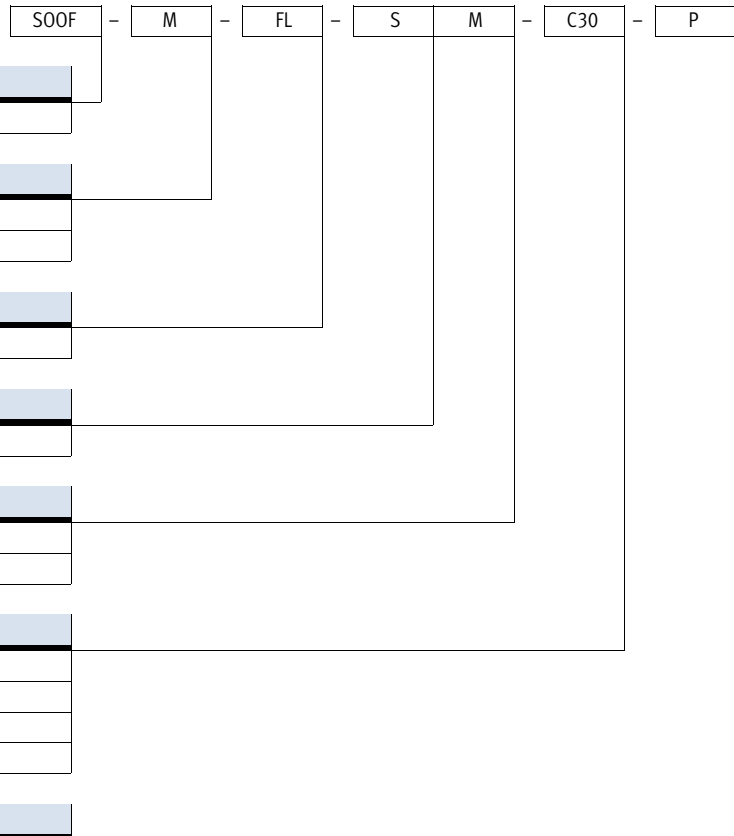


Accessories		→ Page/ Internet
1	Connecting cable M8x1 NEBU	10
2	Inscription label holder (included in the scope of delivery for NEBU)	-

Accessories		→ Page/ Internet
3	Mounting SAMH	10
-	Inscription label ASLR-423	10

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Type codes



Type	
SOOF	Opto-electronic sensor

Version	
M	Metal
P	Polymer

Function	
FL	Fork light barrier

Switching function	
S	N/O or N/C contacts, switchable

Setting option	
M	Potentiometer
T	Teach-in

Fork gap	
C30	30 mm
C50	50 mm
C80	80 mm
C120	120 mm

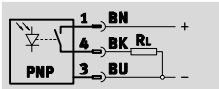
Switching output	
P	PNP
N	NPN

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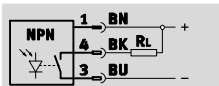
Technical data

Function

PNP, switchable



NPN, switchable



- Transmitter and receiver in one compact housing
- Minimum installation effort
- Sturdy housing: high shock and vibration resistance



General technical data									
Version	Metal					Polymer			
Fork gap [mm]	30	50	80	120		30	50	80	120
Method of measurement	Fork light barrier					Fork light barrier			
Measuring principle	Optoelectronic								
Measured variable	Position								
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			
Type of light	Red					Red			
Setting options	Potentiometer					Teach-in			
Switching status display	Yellow LED					Yellow LED			
Ready status display	-					Green LED			
Max. tightening torque [Nm]	-					1 with female thread			
	-					4 with through-hole			
	-					3 with accessories			
Max. tightening torque [Nm]	-					0.3			
Plug									
Product weight [g]	75	110	130	260		20	30	35	40

Electrical data									
Version	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			
Reverse polarity protection	For operating voltage connections					For operating voltage connections			
Surge capacity [kV]	0.8					0.8			
Insulation voltage [V]	50					50			
Protection class	IP67					IP67			

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Technical data



Operating and environmental conditions		
Ambient temperature	[°C]	-10 ... +60
Degree of contamination		3
CE mark (see declaration of conformity)		To EU EMC Directive ¹⁾
Certification		cULus listed (OL)
		RCM trademark

- 1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → User documentation.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Materials		
Version	Metal	Polymer
Housing	Painted die-cast zinc	PC
Note on materials	Free of copper and PTFE	-
	Contains PWIS (paint wetting impairment substances)	-
	RoHS-compliant	RoHS-compliant

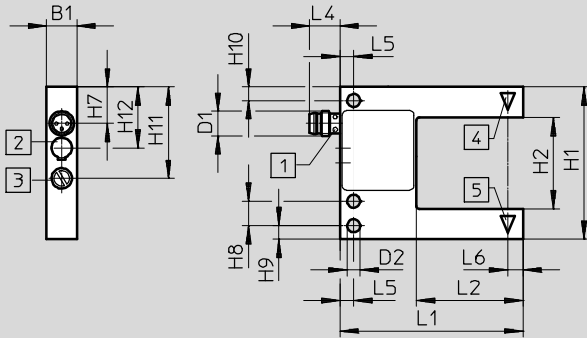
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Technical data

Dimensions – Metal

Download CAD data → www.festo.com

Fork gap 30 ... 80



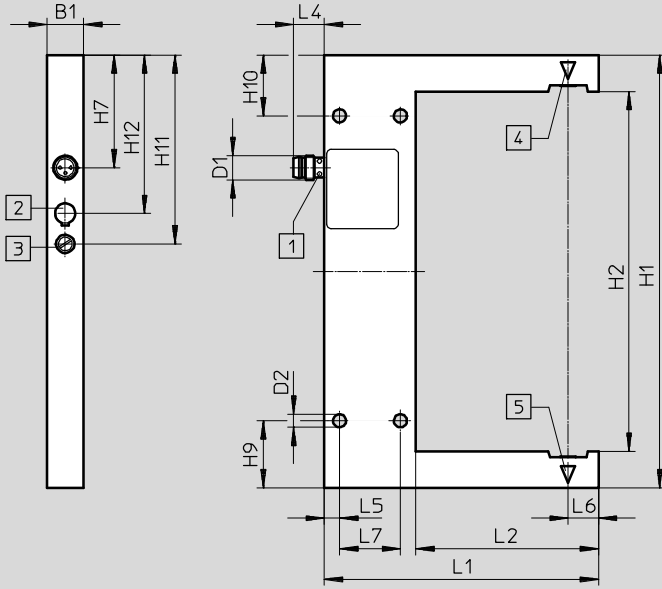
- 1 Switching status display, yellow LED
- 2 N/O or N/C, switchable
- 3 Potentiometer
- 4 Transmitter
- 5 Receiver

Type	B1	D1	D2 ∅	H1	H2 Fork gap	H7	H8	H9	H10	H11	H12	L1	L2	L4	L5	L6
SOOF-M-FL-SM-C30-P	10	M8x1	4.3	50	30	12	8	4.5	4.5	30	20	60	35	10	4.5	5
SOOF-M-FL-SM-C30-N																
SOOF-M-FL-SM-C50-P	10	M8x1	4.3	70	50	12	8	4.5	4.5	30	20	80	55	10	4.5	5
SOOF-M-FL-SM-C50-N																
SOOF-M-FL-SM-C80-P	10	M8x1	4.3	90	80	12	8	4.5	4.5	30	20	80	55	10	4.5	5
SOOF-M-FL-SM-C80-N																

Dimensions – Metal

Download CAD data → www.festo.com

Fork gap 120



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

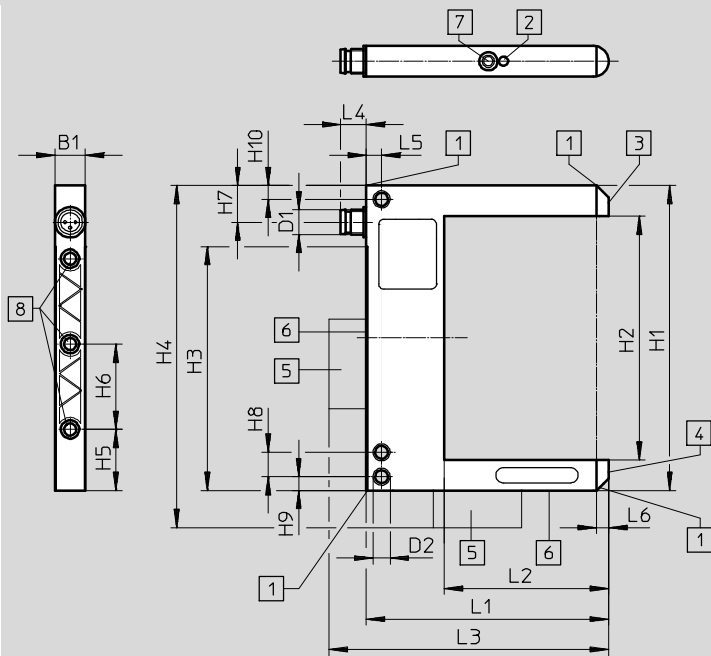
Type	B1	D1	D2 ∅	H1	H2 Fork gap	H7	H9	H10	H11	H12	L1	L2	L4	L5	L6	L7
SOOF-M-FL-SM-C120-P	12	M8x1	4.3	144	120	37	22	22	62	54	90	60	10	5	10	20
SOOF-M-FL-SM-C120-N																

Fork light barriers SOOF

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 → 10
- 6) Dovetail for mounting SAMH
- 7) Teach-in button
- 8) Threaded insert M4, max. screw-in depth 6 mm

Type	B1	D1	D2 ∅	H1	H2 Fork gap	H3	H4	H5	H6	H7
S00F-P-FL-ST-C30-P	10	M8x1	4.2	50	30	30	62.2	20	-	12
S00F-P-FL-ST-C30-N										
S00F-P-FL-ST-C50-P	10	M8x1	4.2	70	50	50	82.2	20	28	12
S00F-P-FL-ST-C50-N										
S00F-P-FL-ST-C80-P	10	M8x1	4.2	100	80	80	112.2	20	2x28	12
S00F-P-FL-ST-C80-N										
S00F-P-FL-ST-C120-P	10	M8x1	4.2	140	120	120	152.2	20	3x28	12
S00F-P-FL-ST-C120-N										

Type	H8	H9	H10	L1	L2	L3	L4	L5	L6
S00F-P-FL-ST-C30-P	8	4.5	4.5	59.5	34	71.7	8.5	5	4
S00F-P-FL-ST-C30-N									
S00F-P-FL-ST-C50-P	8	4.5	4.5	79.5	54	91.7	8.5	5	4
S00F-P-FL-ST-C50-N									
S00F-P-FL-ST-C80-P	8	4.5	4.5	79.5	54	91.7	8.5	5	4
S00F-P-FL-ST-C80-N									
S00F-P-FL-ST-C120-P	8	4.5	4.5	79.5	54	91.7	8.5	5	4
S00F-P-FL-ST-C120-N									

1) With mounting SAMH.

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Technical data




Ordering data					
Version	Fork gap [mm]	Switching output	Part No.	Type	
Metal					
	30	PNP	553553	SOOF-M-FL-SM-C30-P	
		NPN	553554	SOOF-M-FL-SM-C30-N	
	50	PNP	553555	SOOF-M-FL-SM-C50-P	
		NPN	553556	SOOF-M-FL-SM-C50-N	
	80	PNP	553557	SOOF-M-FL-SM-C80-P	
		NPN	553558	SOOF-M-FL-SM-C80-N	
	120	PNP	553559	SOOF-M-FL-SM-C120-P	
		NPN	553560	SOOF-M-FL-SM-C120-N	
	Polymer				
		30	PNP	553561	SOOF-P-FL-ST-C30-P ¹⁾
NPN			553562	SOOF-P-FL-ST-C30-N ¹⁾	
50		PNP	553563	SOOF-P-FL-ST-C50-P	
		NPN	553564	SOOF-P-FL-ST-C50-N	
80		PNP	553565	SOOF-P-FL-ST-C80-P	
		NPN	553566	SOOF-P-FL-ST-C80-N	
120		PNP	553567	SOOF-P-FL-ST-C120-P	
		NPN	553568	SOOF-P-FL-ST-C120-N ¹⁾	


1) With metal plug


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Accessories

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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	541333	NEBU-M8G3-K-2.5-LE3
			5	541334	NEBU-M8G3-K-5-LE3
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3
			5	541341	NEBU-M8W3-K-5-LE3
	Straight socket, M8x1, 3-pin	Straight plug, M8x1, 3-pin	0.5	541346	NEBU-M8G3-K-0.5-M8G3
			1	541347	NEBU-M8G3-K-1-M8G3
			2.5	541348	NEBU-M8G3-K-2.5-M8G3
			5	541349	NEBU-M8G3-K-5-M8G3

Ordering data – Mounting		
	Part No.	Type
	553569	SAMH-G3-Q

Ordering data – Inscription labels		
	Part No.	Type
	541598	ASLR-423

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