

Fork light barriers S00F



Fork light barriers SOOF

Product range overview

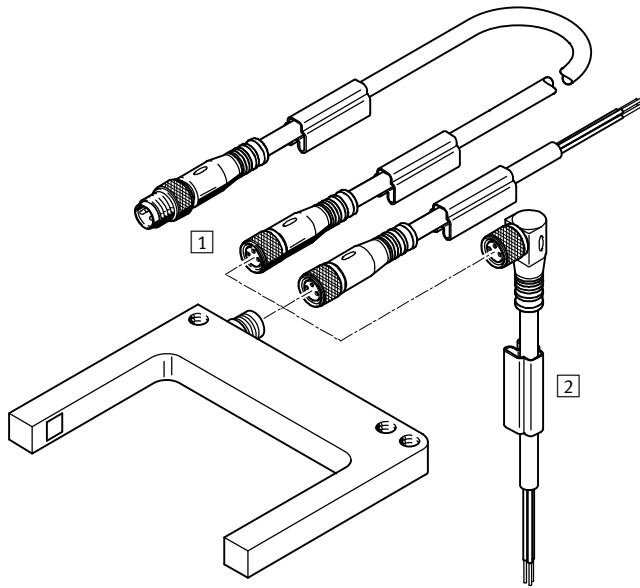


Method of measurement		Size [mm]	Min. object diameter [mm]	Max. switching frequency [Hz]	Switching output	Type of light	→ Page/ Internet			
Metal										
Fork light barrier	SOOF-M-...-C30	Fork 30x35	0.5	4,000	PNP NPN	Red	5			
	SOOF-M-...-C50	Fork 50x55	0.5	4,000	PNP NPN					
	SOOF-M-...-C80	Fork 80x55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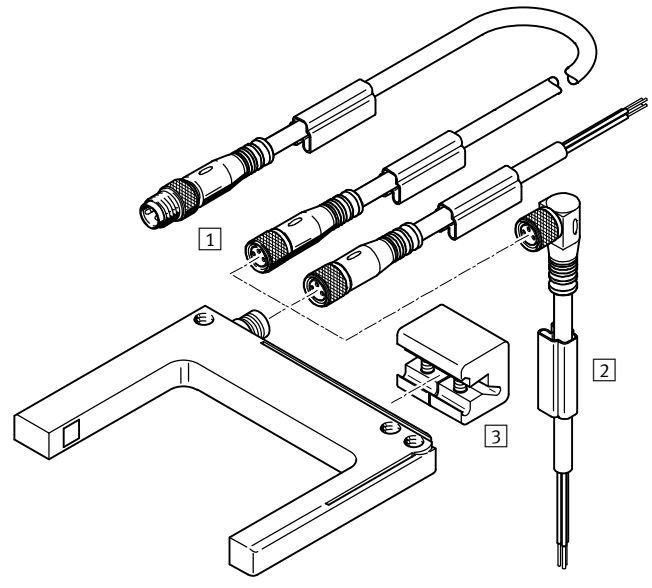
Overview of peripherals

Metal



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

Polymer



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

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Type codes

S00F - M - FL - S M - C30 - P

Type	
S00F	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

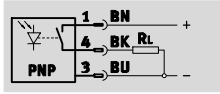
Fork gap	
C30	30 mm
C50	50 mm
C80	80 mm
C120	120 mm

Switching output	
P	PNP
N	NPN

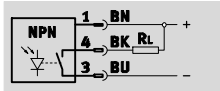
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Technical data

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 Plug	[Nm]	–				0.3			
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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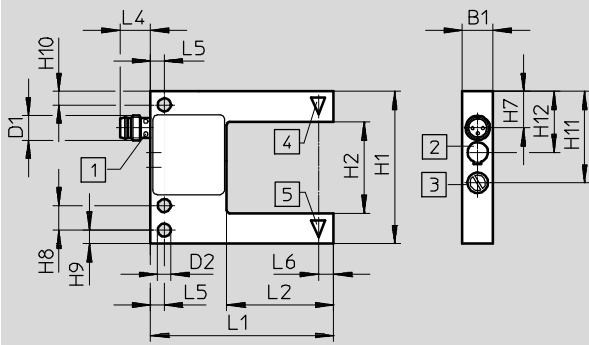
Technical data

FESTO

Dimensions – Metal

Download CAD data → www.festo.com

Fork gap 30 ... 80



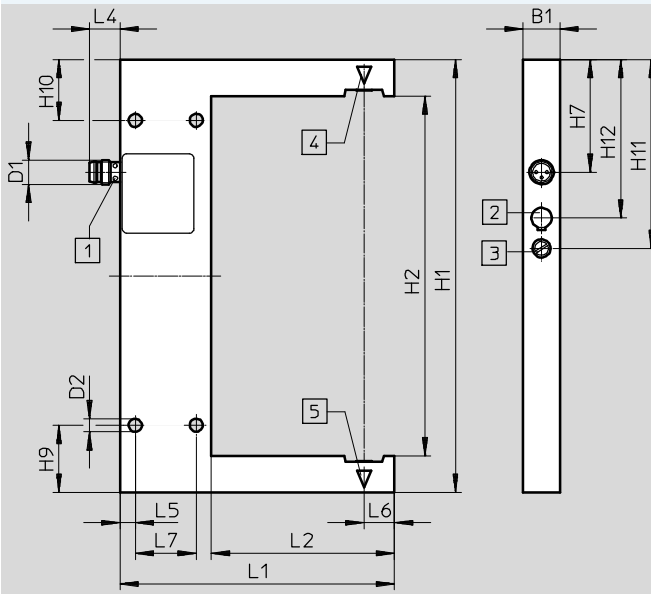
- 1 Switching status display, yellow LED
- 2 N/O or N/C, switchable
- 3 Potentiometer
- 4 Transmitter
- 5 Receiver

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																

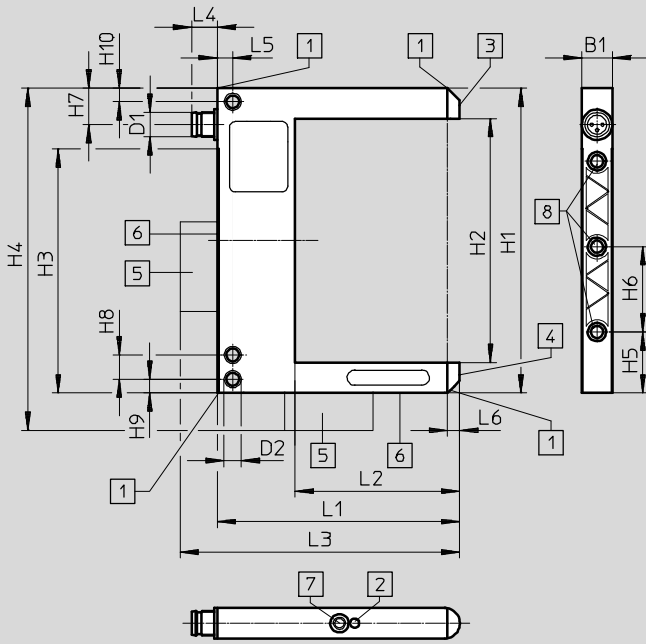
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Technical data

FESTO

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

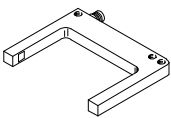
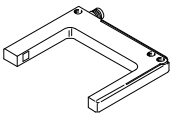
Type	H8	H9	H10	L1	L2	L3	L4	L5	L6
SOOF-P-FL-ST-C30-P	8	4.5	4.5	59.5	34	71.7	8.5	5	4
SOOF-P-FL-ST-C30-N									
SOOF-P-FL-ST-C50-P	8	4.5	4.5	79.5	54	91.7	8.5	5	4
SOOF-P-FL-ST-C50-N									
SOOF-P-FL-ST-C80-P	8	4.5	4.5	79.5	54	91.7	8.5	5	4
SOOF-P-FL-ST-C80-N									
SOOF-P-FL-ST-C120-P	8	4.5	4.5	79.5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

1) With mounting SAMH.

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Technical data

FESTO




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



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