

WF30-95B410

WF

FORK SENSORS





Ordering information

Туре	Part no.
WF30-95B410	6028446

Other models and accessories → www.sick.com/WF

Illustration may differ



Detailed technical data

Features

Functional principle	Fork sensor
Functional principle detail	Optical detection principle
Dimensions (W x H x D)	10 mm x 60 mm x 110 mm
Fork width	30 mm
Fork depth	95 mm
Minimum detectable object (MD0)	0.2 mm
Label detection	√
Light source	LED, infrared
Wave length	850 nm
Adjustment	Plus/minus button (Sensitivity, light/dark switching, key lock)
Teach-in mode	_
Output function	Light/darkswitching, selectable via button

Mechanics/electronics

Medianics/ electronics	
Current consumption	40 mA
Switching frequency	10 kHz ¹⁾
Response time	100 μs
Stability of response time	± 20 µs
Jitter	40 μs
Switching output	PNP/NPN
Switching output (voltage)	PNP: HIGH = $U_V \le 2 \text{ V} / \text{LOW approx. 0 V}$ NPN: HIGH = approx. $U_V / \text{LOW} \le 2 \text{ V}$
Switching mode	Light/dark switching
Output current I _{max.}	100 mA

 $^{^{1)}}$ With light/dark ratio 1:1.

²⁾ Reference voltage DC 50 V.

³⁾ Depending on fork width.

Initialization time	100 ms
Connection type	Male connector M8, 4-pin
Protection class	III ²⁾
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP65
Weight	Approx. 36 g 160 g ³⁾
Housing material	Metal, Aluminum

¹⁾ With light/dark ratio 1:1.

Safety-related parameters

MTTF _D	97 years
DC _{avg}	0 %

Ambient data

Ambient light immunity	≤ 10,000 lx
Shock load	According to EN 60068-2-27
UL File No.	NRKH.E191603

Classifications

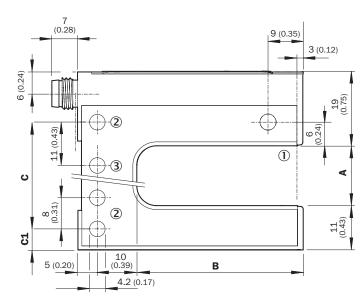
ECLASS 5.0	27270909
ECLASS 5.1.4	27270909
ECLASS 6.0	27270909
ECLASS 6.2	27270909
ECLASS 7.0	27270909
ECLASS 8.0	27270909
ECLASS 8.1	27270909
ECLASS 9.0	27270909
ECLASS 10.0	27270909
ECLASS 11.0	27270909
ECLASS 12.0	27270909
ETIM 5.0	EC002720
ETIM 6.0	EC002720
ETIM 7.0	EC002720
ETIM 8.0	EC002720
UNSPSC 16.0901	39121528

²⁾ Reference voltage DC 50 V.

³⁾ Depending on fork width.

Dimensional drawing (Dimensions in mm (inch))





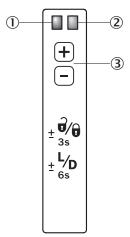
- ① Optical axis
- ② Mounting hole, Ø 4.2 mm
- ③ WF50/80/120 only

Dimensions in mm (inch)

	A Fork width	B Fork depth	С	C1
WF2	2	42/59/95	14	5
	(0.08)	(1.65/2.32/3.74)	(0.55)	(0.20)
WF5	5	42/59/95	14	6.5
	(0.20)	(1.65/2.32/3.74)	(0.55)	(0.20)
WF15	15	42/59/95	27	5
	(0.59)	(1.65/2.32/3.74)	(1.06)	(0.20)
WF30	30	42/59/95	42	5
	(1.18)	(1.65/2.32/3.74)	(1.65)	(0.20)
WF50	50	42/59/95	51	16
	(1.97)	(1.65/2.32/3.74)	(2.01)	(0.63)
WF80	80	42/59/95	81	16
	(3.15)	(1.65/2.32/3.74)	(3.19)	(0.63)
WF120	120	42/59/95	121	16
	(4.72)	(1.65/2.32/3.74)	(4.76)	(0.63)

Adjustments

Adjustment: plus/minus buttons (WFxx-B410)



- ① Function signal indicator (yellow), switching output
- ② Function indicator (red)
- ③ "+"/"-" buttons and function button

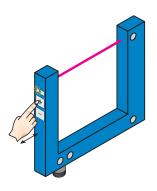
Connection diagram

Cd-086

Concept of operation

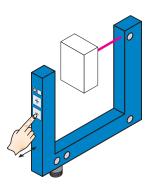
Setting the switching threshold via plus/minus buttons (WFxx-B410)

1. No object in the beam path



The yellow function indicator illuminates when the light received is at its optimum level. If necessary, increase sensitivity using the "+" button.

2. Object in the beam path



Yellow function indicator goes out. If necessary, reduce sensitivity using the "-" button.

Recommended accessories

Other models and accessories → www.sick.com/WF

	Brief description	Туре	Part no.		
Plug connect	Plug connectors and cables				
	 Connection type head A: Female connector, M8, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YF8U14- 050VA3XLEAX	2095889		
	 Connection type head A: Male connector, M8, 4-pin, straight Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² 0.5 mm² 	STE-0804-G	6037323		

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