

WF2-95B416 WF

FORK SENSORS





Ordering information

Туре	part no.
WF2-95B416	6028464

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

Illustration may differ



Detailed technical data

Features

Functional principle	Optical detection principle
Dimensions (W x H x D)	10 mm x 32 mm x 110 mm
Fork width	2 mm
Fork depth	95 mm
Minimum detectable object (MD0)	0.2 mm
Light source	LED, infrared, Infrared light
Adjustment	Plus/minus button (Teach-in, sensitivity, light/dark switching, key lock)
Teach-in mode	2-point teach-in
Output function	Light/darkswitching, selectable via button
Safety-related parameters	
MTTF _D	97 years
DC _{avg}	0 %

Electronics

Supply voltage	10 V DC 30 V DC
Ripple	< 10 %
Switching frequency	10 kHz
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
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP65

Mechanics

Housing material	Aluminum
Connection type	Male connector M8, 4-pin
Weight	Approx. 36 g 160 g ¹⁾

¹⁾ Depending on fork width.

Ambient data

Ambient operating temperature	-20 °C +60 °C ¹⁾
Ambient temperature, storage	-30 °C +80 °C
Ambient light immunity	≤ 10,000 lx
Shock load	According to EN 60068-2-27
Protection class	III ²⁾
UL File No.	NRKH.E191603

 $^{^{1)}}$ Do not bend below 0 °C.

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Photobiological safety (IEC EN 62471)	✓

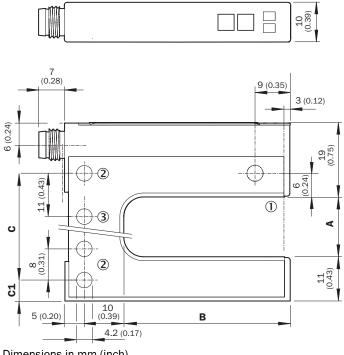
Classifications

27270909
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EC002720

²⁾ Reference voltage DC 50 V.

ETIM 6.0	EC002720
ETIM 7.0	EC002720
ETIM 8.0	EC002720
UNSPSC 16.0901	39121528

Dimensional drawing



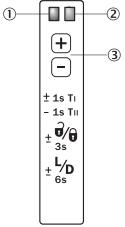
Dimensions in mm (inch)

	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)

Dimensions in mm (inch)

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

Adjustments Adjustment: teach-in via plus/minus buttons (WFxx-B416)



① Function signal indicator (yellow), switching output

- ② Function indicator (red)
- ③ "+"/"-" buttons and function button

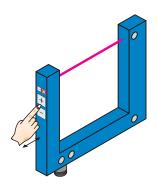
Connection diagram Cd-086



Concept of operation Teach-in via plus/minus buttons (WFxx-B416)

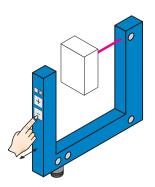
The switching threshold is set automatically. Fine adjustment is possible using the "+"/"-" buttons.

1. No object or substrate in the beam path



Press the "+" and "-" buttons together and hold for 1 second. The red function indicator flashes slowly.

2. Object or label in the beam path



Press the "-" button for 1 second. Red function indicator goes out.

Notes

Material speed = 0 (machine at a standstill).



Once teach-in process is complete, the switching threshold can be adjusted at any time using the "+" or "-" button. To make minor adjustments, press the "+" or "-" button once. To configure settings quickly, keep the "+" or "-" button pressed for longer.



Press both the "+" and "-" buttons together (3 seconds) to lock the device and prevent unintentional actuation.



Recommended accessories

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

	Brief description	Туре	part no.			
connectors an	connectors and cables					
	 Connection type head A: Male connector, M8, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² 0.5 mm² 	STE-0804-G	6037323			
	 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, Uncontaminated zones 	YF8U14-050VA3XLEAX	2095889			

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