WF15-60B410

WF

FORK SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
WF15-60B410	6028438

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

Detailed technical data

Features

Functional principle	Optical detection principle
Dimensions (W x H x D)	10 mm x 45 mm x 74 mm
Fork width	15 mm
Fork depth	59 mm
Minimum detectable object (MDO)	0.2 mm
Label detection	✓
Adjustment	Plus/minus button (Sensitivity, light/dark switching, key lock)
Teach-in mode	—
Output function	Light/darkswitching, selectable via button

Mechanics/electronics

Current consumption	40 mA
Stability of response time	± 20 µs
Jitter	40 µs
Switching output	PNP/NPN
Switching output (voltage)	PNP: HIGH = U_V ≤ 2 V / LOW approx. 0 V NPN: HIGH = approx. U_V / LOW ≤ 2 V
Switching mode	Light/dark switching
Output current $I_{max.}$	100 mA
Initialization time	100 ms
Connection type	Male connector M8, 4-pin
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 [1]

[1] Depending on fork width.

Housing material	Aluminum

1) Depending on fork width.

Safety-related parameters

$MTTF_D$	97 years
DC_{avg}	0 %

Ambient data

Shock load	According to EN 60068-2-27
UL File No.	NRKH.E191603

Classifications

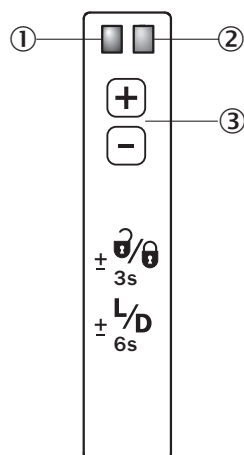| ECLASS 5.0	27270909
ECLASS 5.1.4	27270909
ECLASS 6.0	27270909
ECLASS 6.2	27270909
ECLASS 7.0	27270909
ECLASS 8.0	27270909
ECLASS 8.1	27270909
ECLASS 9.0	27270909
ECLASS 10.0	27270909
ECLASS 11.0	27270909
ECLASS 12.0	27270909
ETIM 5.0	EC002720
ETIM 6.0	EC002720
ETIM 7.0	EC002720
ETIM 8.0	EC002720
UNSPSC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

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

```
BN   1   + (L+)
WH   2   Q_NPN
BU   3   - (M)
BK   4   Q_PNP
```

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	Type	Part no.
Others			
	• **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	YF8U14-050VA3XLEAX	2095889

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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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