



WFM30-40P111

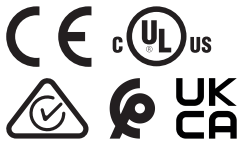
WFM

FORK SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
WFM30-40P111	6052441

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

Detailed technical data

Features

Functional principle	Optical detection principle
Dimensions (W x H x D)	10 mm x 50 mm x 59.5 mm
Fork width	30 mm
Fork depth	42 mm
Minimum detectable object (MDO)	0.8 mm
Light source	LED, red
Adjustment	None

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	< 10 %
Current consumption	< 20 mA ¹⁾
Switching frequency	4 kHz
Response time	≤ 125 μs ²⁾
Stability of response time	± 15 μs
Switching output	PNP
Switching output (voltage)	PNP: HIGH = $V_S - \leq 1.5 \text{ V}$ / LOW = 0 V NPN: HIGH = approx. V_S / LOW ≤ 1.5 V
Switching mode	Light switching
Output current I_{max}	100 mA
Initialization time	140 ms

¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ Reference voltage DC 50 V.

⁴⁾ Depending on fork width.

Connection type	Cable, 3-wire, 2 m
Cable diameter	4 mm
Protection class	III ³⁾
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP67
Weight	Approx. 80 g ... 190 g ⁴⁾
Housing material	Aluminum

¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ Reference voltage DC 50 V.

⁴⁾ Depending on fork width.

Safety-related parameters

MTTF_D	131 years
DC_{avg}	0 %

Ambient data

Ambient operating temperature	-10 °C ... +60 °C ¹⁾
Ambient temperature, storage	-40 °C ... +80 °C
Ambient light immunity	≤ 10,000 lx
Shock load	According to EN 60068-2-27
UL File No.	NRKH.E191603 & NRKH7.E191603

¹⁾ Do not bend below 0 °C.

Certificates

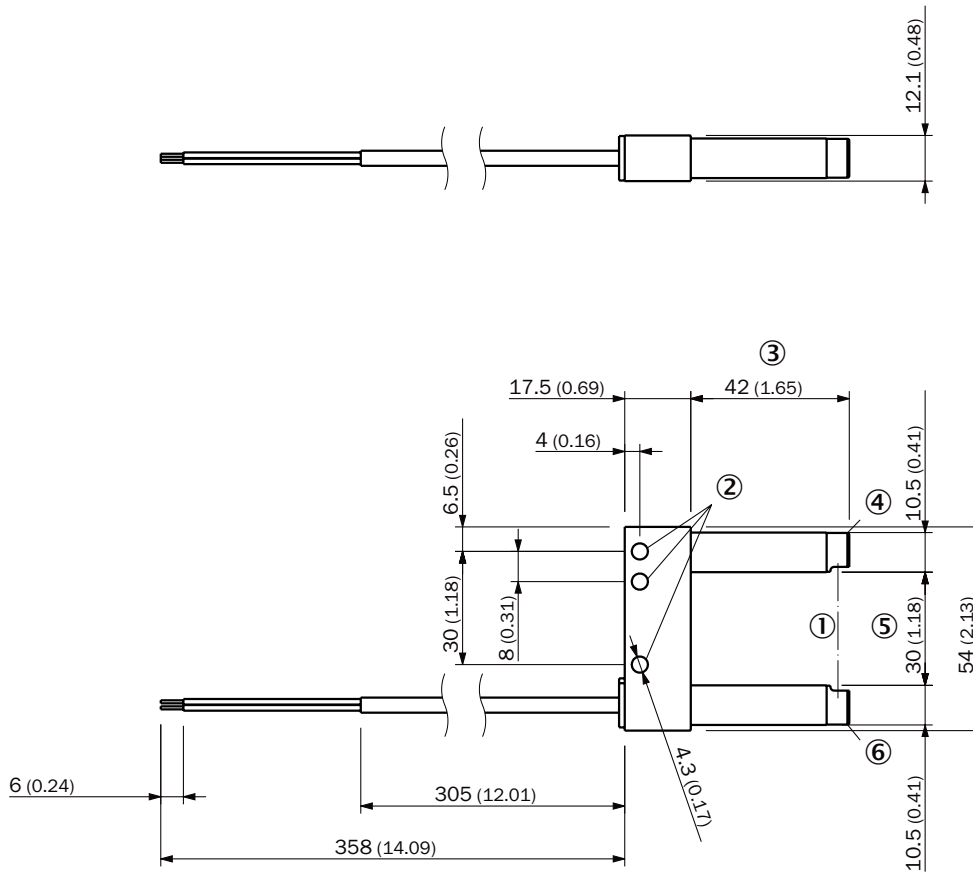
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓

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

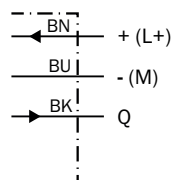
Dimensional drawing



Dimensions in mm (inch)

- ① Optical axis
- ② Mounting hole, Ø 4.3 mm
- ③ Fork depth
- ④ Transmitted light (red)
- ⑤ Fork width
- ⑥ Function signal indicator (yellow), switching output

Connection diagram Cd-044



Recommended accessories

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

	Brief description	Type	part no.
connectors and cables			
	• Connection type head A: Female connector, M8, 3-pin, straight, A-coded • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: 0.14 mm² ... 0.5 mm²	DOS-0803-G	7902077
	• Connection type head A: Male connector, M8, 3-pin, straight, A-coded • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: 0.14 mm² ... 0.5 mm²	STE-0803-G	6037322
	• Connection type head A: Female connector, M8, 3-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals, Uncontaminated zones	YF8U13-050VA1XLEAX	2095884

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

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