Data sheet

WFM30-40P121

WFM

FORK SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	part no.
WFM30-40P121	6037823

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
Safety-related parameters	
$MTTF_D$	131 years
DC_{avg}	0 %

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 – ≤ 1.5 V / LOW = 0 V NPN: HIGH = approx. V_S / LOW ≤ 1.5 V
Switching mode	Dark switching

[1] Without load.
[2] Signal transit time with resistive load.

Output current $I_{max.}$	100 mA
Initialization time	140 ms
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP67

[1] Without load.
[2] Signal transit time with resistive load.

Mechanics

Housing material	Aluminum
Connection type	Cable, 3-wire, 2 m
Cable diameter	Ø 4 mm
Weight	Approx. 80 g ... 190 g [1]

[1] Depending on fork width.

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
Protection class	III [2]
UL File No.	NRKH.E191603 & NRKH7.E191603

[1] Do not bend below 0 °C.
[2] Reference voltage DC 50 V.

Certificates

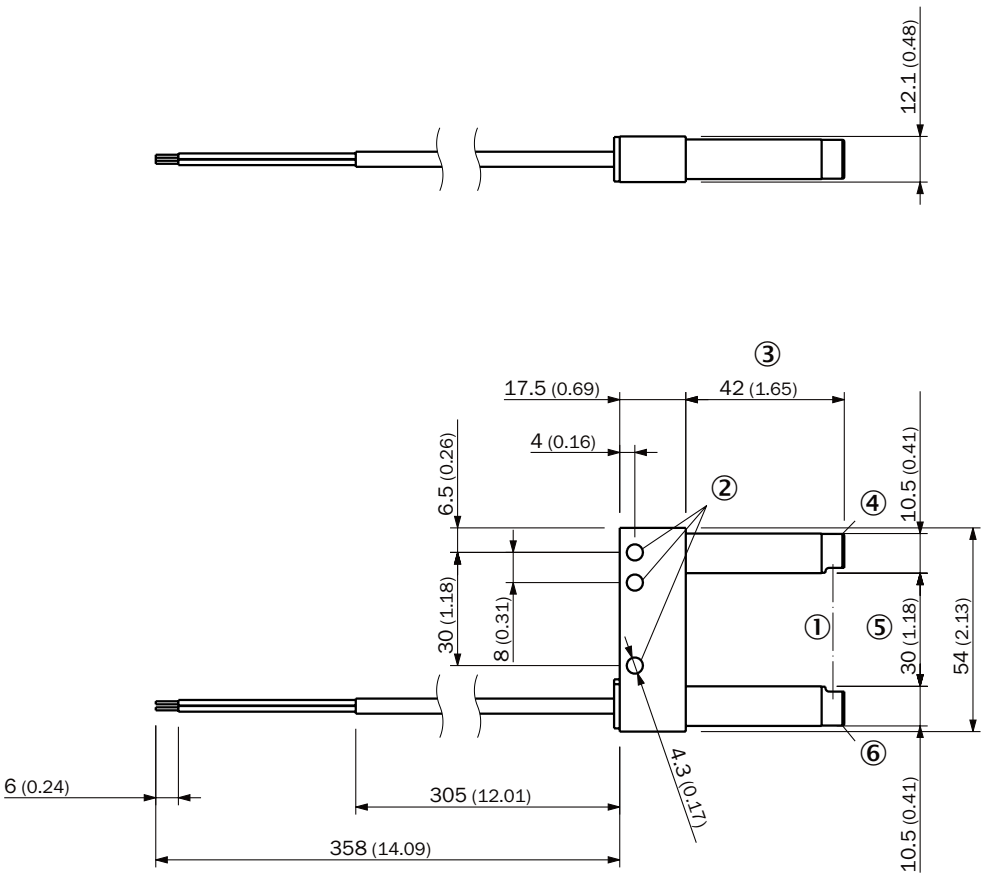
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

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

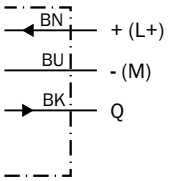
ECLASS 11.0	27270909
ECLASS 12.0	27270909
ETIM 5.0	EC002720
ETIM 6.0	EC002720
ETIM 7.0	EC002720
ETIM 8.0	EC002720
UNSPSC 16.0901	39121528

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.”

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