

MF-R0605N141ZZZ

MF

FORK SENSORS

SICK
Sensor Intelligence.

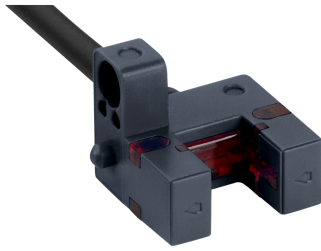
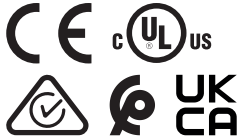


Illustration may differ



Ordering information

Type	part no.
MF-R0605N141ZZZ	6090468

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

Detailed technical data

Features

Mounting system type	R
Dimensions (W x H x D)	11.7 mm x 14 mm x 14.9 mm
Fork width	6 mm
Fork depth	5 mm
Light source	LED, infrared
Minimum detectable object (MDO)	0.8 mm
Repeatability	0.01 mm
Display	Red LED indicator: Switching output Q ₁ (Light ON)
Adjustment	None

Electronics

Supply voltage	5 V DC ... 30 V DC
Ripple	< 10 %
Current consumption	< 10 mA
Initialization time	100 ms
Switching frequency	> 4 kHz
Response time	100 µs
Jitter	28 µs
Switching output	NPN ¹⁾
Switching output (voltage)	High = U _V - < 2 V / Low: ≤ 2 V
Switching mode	Light/dark switching ^{2) 3)}
Switching output hysteresis	< 0.05 mm
Output current I_{max.}	100 mA
Protection class	III

¹⁾ Open Collector.

²⁾ Q1 = light switching.

³⁾ Q2 = dark switching.

Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Connection type	
	Cable open end, 4-wire
Connection type Detail	
Length of cable	2 m
Cable material	PVC
Cable diameter	2.7 mm
Conductor cross section	0.08 mm ²
Pinouts	
BN	+ (L+)
WH	Q ₂ (Dark ON)
BU	- (M)
BK	Q ₁ (Light ON)

¹⁾ Open Collector.

²⁾ Q₁ = light switching.

³⁾ Q₂ = dark switching.

Mechanics

Housing material	ABS
Weight	22 g

Ambient data

Ambient operating temperature	-25 °C ... +55 °C
Ambient temperature, storage	-30 °C ... +80 °C
Shock load	According to EN 60068-2-27
EMC	EN 60947-5-2 ¹⁾
Enclosure rating	IP67

¹⁾ The sensor complies with the Radio Safety Requirements (EMC) for the industrial sector (Radio Safety Class A). It may cause radio interference if used in a residential area.

Classifications

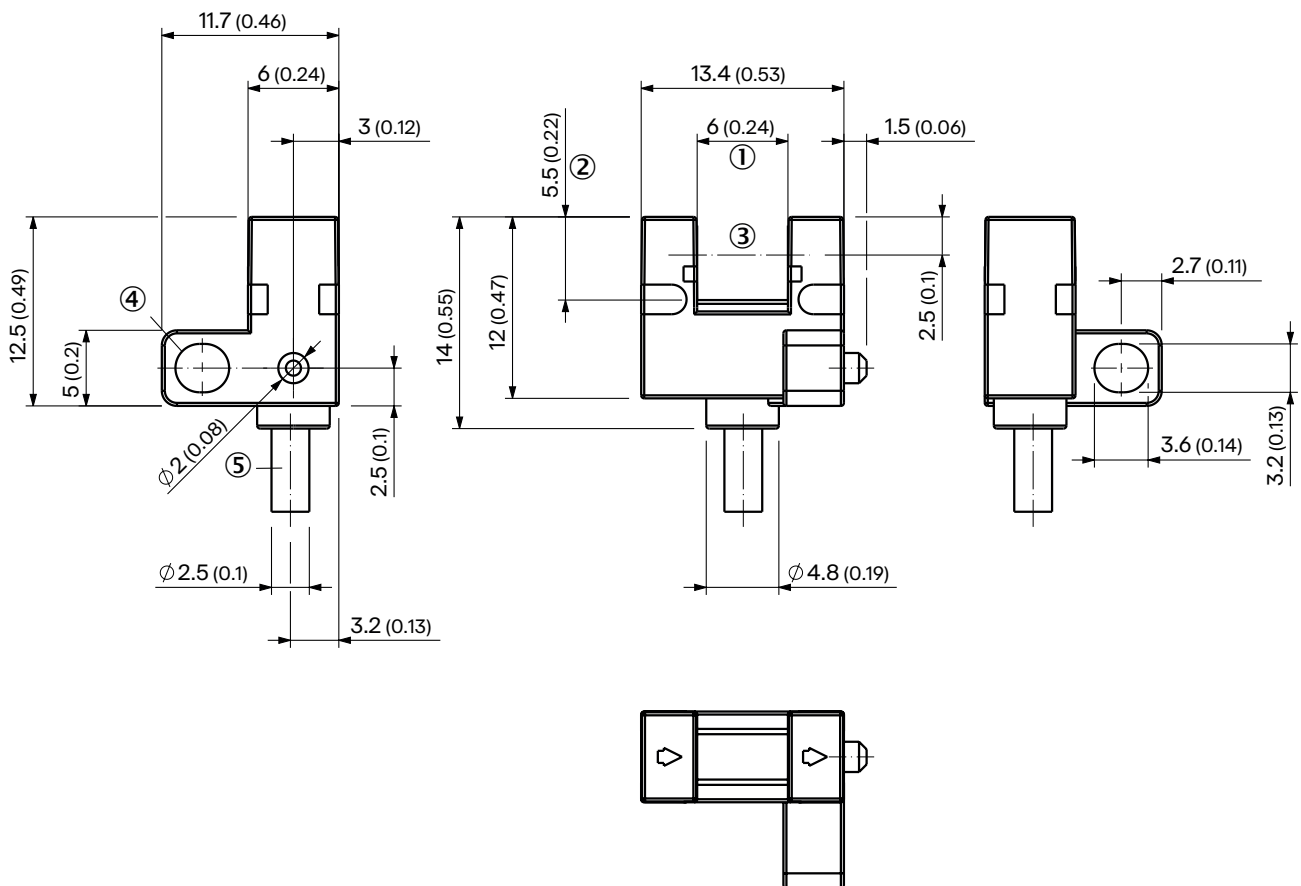
ECLASS 5.0	27270909
ECLASS 5.1.4	27270909
ECLASS 6.0	27270909
ECLASS 6.2	27270909
ECLASS 7.0	27270909
ECLASS 8.0	27270909
ECLASS 8.1	27270909
ECLASS 9.0	27270909
ECLASS 10.0	27270909
ECLASS 11.0	27270909
ECLASS 12.0	27270909
ETIM 5.0	EC002720

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

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)	✓

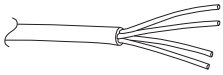
Dimensional drawing, sensor



Dimensions in mm (inch)

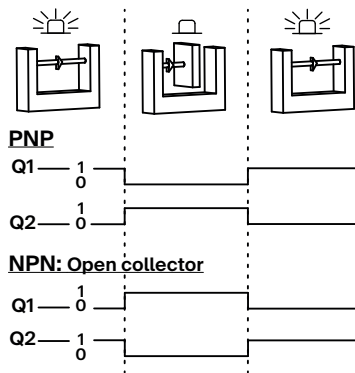
- ① Fork width
- ② Fork depth
- ③ Detection axis
- ④ fixing hole
- ⑤ Cable with flying leads, 4-wire, AWG 28, 0.09 mm²

Pinouts, see table Technical data: Electronics

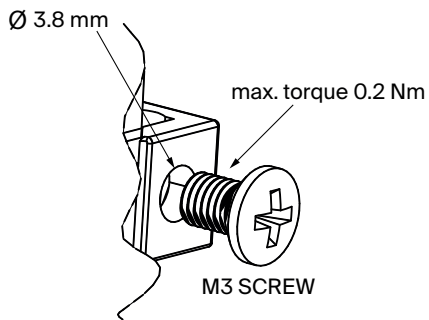


Cable with flying leads, 4-wire, AWG 28, 0.09 mm²

Status of digital output



Assembly note



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:

Contacts and other locations –www.sick.com