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Product data sheet



WFE-030040B337

WFE

FORK SENSORS

SICK
Sensor Intelligence.

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FORK SENSORS



Illustration may differ

Ordering information

Type	Part no.
WFE-030040B337	1106553

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

Detailed technical data

Features

Functional principle	Fork sensor
Dimensions (W x H x D)	10 mm x 59.3 mm x 60.5 mm
Fork width	30 mm
Fork depth	40 mm
Minimum detectable object (MDO)	0.5 mm
Adjustment	Potentiometer, light/dark switching

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Current consumption	< 30 mA [1]
Switching frequency	5 kHz
Stability of response time	± 20 µs
Switching output	Push-pull: PNP/NPN
Switching output (voltage)	Push-pull: PNP/NPN High = U_V - < 2 V/Low: ≤ 2 V
Switching mode	Light/dark switching
Switching output hysteresis	< 0.1 mm
Output current $I_{max.}$	100 mA
Initialization time	100 ms
Connection type	Connector M8, 3-pin
Protection class	III
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP67

[1] Without load.

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Housing material	Plastic, ABS, Coated carbon steel (frame)
Indication	LED indicator green: power on LED indicator, yellow: Status switching output Q

[1] Without load.

Safety-related parameters

$MTTF_D$	1,217 years
DC_{avg}	0 %
T_M (mission time)	20 years

Ambient data

Ambient operating temperature	–20 °C ... +60 °C
Ambient temperature, storage	–40 °C ... +75 °C
Ambient light immunity	Sunlight:
Shock load	According to IEC 60068-2-27 (30 g/11 ms)
UL File No.	NRKH.E348498 & NRKH7.E348498

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

Connection/Pin assignment

Connection type		Connector M8, 3-pin
Pin assignment		
	BN 1	+ (L+)
	BU 3	- (M)
	BK 4	Q

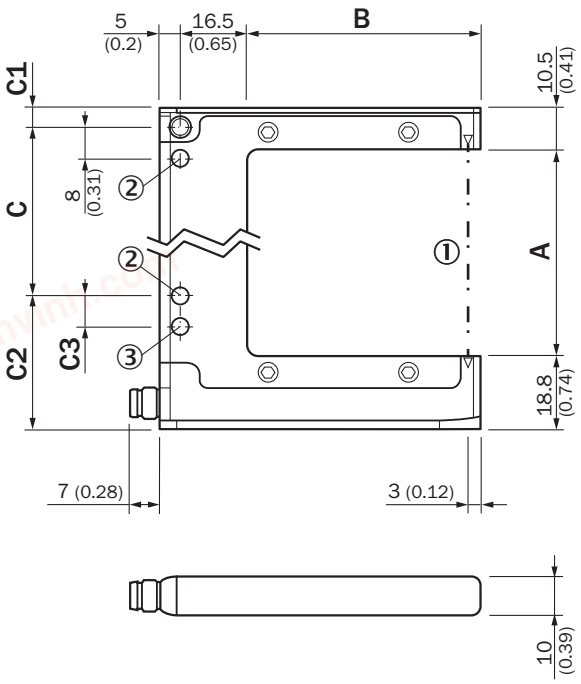
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FORK SENSORS

Dimensional drawing (Dimensions in mm (inch))

WFE-xxxxxxx3xx



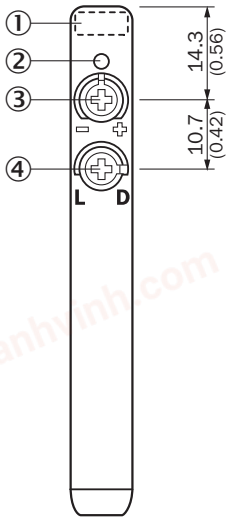
① Optical axis
② Mounting hole, Ø 4.3 mm
③ Only WFE-050/-080/-120/-180

Type	A (fork width)	B (fork depth)	C	C1	C2	C3
WFE-**030040**xxxx	30 (1.18)	39 (1.54)	30 (1.18)	5 (0.2)	24.3 (0.96)	-
WFE-**050060**xxxx	50 (1.97)	57 (2.25)	40 (1.57)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-**080060**xxxx	80 (3.15)	57 (2.24)	70 (2.76)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-**120120**xxxx	120 (4.72)	121.5 (4.78)	100 (3.94)	15.5 (0.61)	33.8 (13.31)	10 (0.39)
WFE-**180120**xxxx	180 (7.09)	121.5 (4.78)	152 (5.98)	20.5 (0.81)	36.8 (1.45)	8 (0.31)

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Adjustments

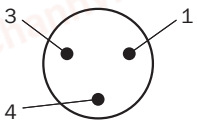
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① Status indicator LED, yellow: Status switching output
② LED indicator green: power
③ Potentiometer for sensitivity adjustment
④ Light/ dark rotary switch: L = light switching, D = dark switching

Pin assignment

Connection type. see table: Connection/PIN assignment



Connector M8, 3-pin

Recommended accessories

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

	Brief description	Type	Part no.
Plug connectors and cables			
	• **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	YF8U13-050VA1XLEAX	2095884
	• **Connection type head A:** Female connector, M8, 3-pin, straight • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	DOS-0803-G	7902077

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FORK SENSORS

	Brief description	Type	Part no.
	• **Connection type head A:** Male connector, M8, 3-pin, straight • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	STE-0803-G	6037322

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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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