WFE-180120B337
WFE
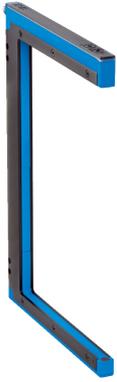
SICK
Sensor Intelligence.

FORK SENSORS

WFE-180120B337 | WFE

FORK SENSORS

Ordering information

Type	part no.
WFE-180120B337	1106558

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

Illustration may differ

Detailed technical data

Features

Dimensions (W x H x D)	10 mm x 209.3 mm x 143 mm
Fork width	180 mm
Fork depth	120 mm
Light source	LED, visible red light
Minimum detectable object (MDO)	0.5 mm
Display	LED indicator green: power on LED indicator, yellow: Status switching output Q
Adjustment	Potentiometer, light/dark switching
Safety-related parameters	
$MTTF_D$	1,217 years
DC_{avg}	0 %
T_M (mission time)	20 years

Electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	< 10 %
Current consumption	< 30 mA [1]
Initialization time	100 ms
Switching frequency	5 kHz
Response time	
	≤ 100 µs
Stability of response time	± 20 µs
Switching output	Push-pull: PNP/NPN

[1] Without load.

Switching output (voltage)	Push-pull: PNP/NPN High = U_V - < 2 V/Low: ≤ 2 V
Switching mode	Light/dark switching
Switching output hysteresis	< 0.2 mm
Output current $I_{max.}$	100 mA
Protection class	III
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Connection type	
	Connector M8, 3-pin

[1] Without load.

Mechanics

Housing material	ABS Coated carbon steel (frame)
Weight	Approx. 245 g

Ambient data

Ambient operating temperature	−20 °C ... +60 °C
Ambient temperature, storage	−40 °C ... +75 °C
Ambient light immunity	≤ 10,000 lx
Shock load	According to IEC 60068-2-27 (30 g/11 ms)
Enclosure rating	IP67
UL File No.	NRKH.E348498 & NRKH7.E348498

Connection type/pinouts

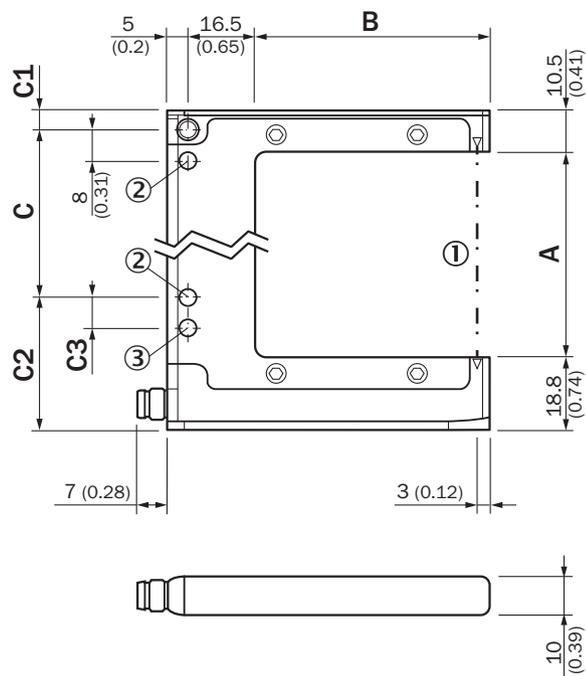| Connection type		
		Connector M8, 3-pin
Pinouts		
	BN 1	+ (L+)
	BU 3	- (M)
	BK 4	Q

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)	✓

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 WFE-xxxxxxx3xx
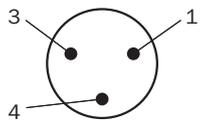

Dimensions in mm (inch)
① Optical axis
② Mounting hole, Ø 4.3 mm
③ only WFE-050/-080/-120/-180

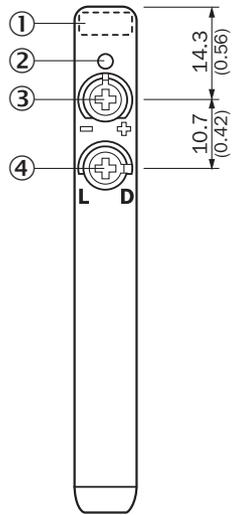| Type	A (fork width)	B (fork depth)	C	C1	C2	C3
WFE-**030040**xxxx	30 (1.18)	39 (1.54)	30 (1.18)	5 (0.2)	24.3 (0.96)	-
WFE-**050060**xxxx	50 (1.97)	57 (2.25)	40 (1.57)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-**080060**xxxx	80 (3.15)	57 (2.24)	70 (2.76)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-**120120**xxxx	120 (4.72)	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)

Pinouts, see table Technical data: Connection type/pinouts

Connector M8, 3-pin

Adjustments WFE-xxxxxxxxx7

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

Recommended accessories

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

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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