

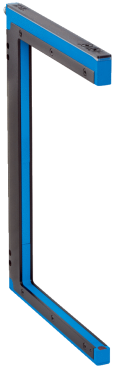


WFE-180120B337

WFE

FORK SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WFE-180120B337	1106558

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

Illustration may differ



Detailed technical data

Features

Functional principle	Fork sensor
Dimensions (W x H x D)	10 mm x 209.3 mm x 143 mm
Fork width	180 mm
Fork depth	120 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	< 0.2 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.

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

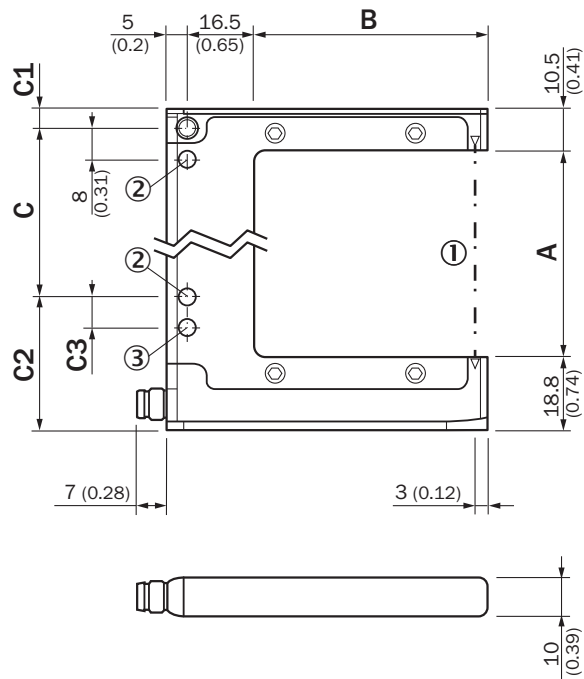
ECLASS 5.0	27270909
ECLASS 5.1.4	27270909
ECLASS 6.0	27270909
ECLASS 6.2	27270909
ECLASS 7.0	27270909
ECLASS 8.0	27270909
ECLASS 8.1	27270909
ECLASS 9.0	27270909
ECLASS 10.0	27270909
ECLASS 11.0	27270909
ECLASS 12.0	27270909
ETIM 5.0	EC002720
ETIM 6.0	EC002720
ETIM 7.0	EC002720
ETIM 8.0	EC002720
UNSPSC 16.0901	39121528

Connection/Pin assignment

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

Dimensional drawing (Dimensions in mm (inch))

WFE-xxxxxxx3xx

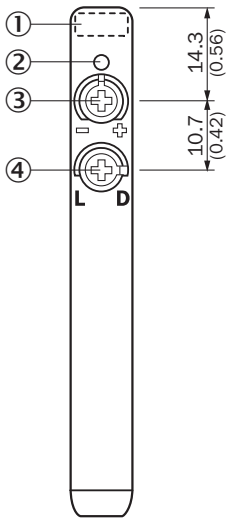


- ① Optical axis
- ② Mounting hole, \varnothing 4.3 mm
- ③ Only WFE-050/-080/-120/-180

Type	A (fork width)	B (fork depth)	C	C1	C2	C3
WFE-030040xxx	30 (1.18)	39 (1.54)	30 (1.18)	5 (0.2)	24.3 (0.96)	-
WFE-050060xxx	50 (1.97)	57 (2.25)	40 (1.57)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-080060xxx	80 (3.15)	57 (2.24)	70 (2.76)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-120120xxx	120 (4.72)	121.5 (4.78)	100 (3.94)	15.5 (0.61)	33.8 (1.331)	10 (0.39)
WFE-180120xxx	180 (7.09)	121.5 (4.78)	152 (5.98)	20.5 (0.81)	36.8 (1.45)	8 (0.31)

Adjustments

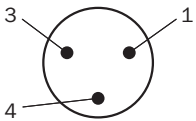
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- ① Status indicator LED, yellow: Status switching output
- ② LED indicator green: power
- ③ Potentiometer for sensitivity adjustment
- ④ Light/ dark rotary switch: L = light switching, D = dark switching

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			
	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • 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

	Brief description	Type	Part no.
	<ul style="list-style-type: none">• 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

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