



WFZ120-185P517

WFZ

FORK SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WFZ120-185P517	1095764

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

Detailed technical data

Features

Functional principle	Fork sensor
Functional principle detail	Optical detection principle
Dimensions (W x H x D)	25 mm x 220 mm x 220 mm
Housing design	Fork shaped
Fork width	120 mm
Fork depth	185 mm
Minimum detectable object (MDO)	0.5 mm
Laser class	I
Wave length	650 nm
Repeatability	± 0.01 mm
Output function	Dark switching

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Current consumption	< 60 mA ²⁾
Switching frequency	1,000 Hz ³⁾
Stability of response time	± 20 µs
Jitter	22 µs
Switching output	PNP
Switching output (voltage)	PNP: HIGH = V _S - (< 2.5 V) / LOW = 0 V
Output current I_{max.}	100 mA
Initialization time	40 ms
Connection type	Male connector M12, 5-pin

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

²⁾ Without load.

³⁾ With light/dark ratio 1:1.

Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP67
Housing material	Metal, Aluminum (anodised)

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

²⁾ Without load.

³⁾ With light/dark ratio 1:1.

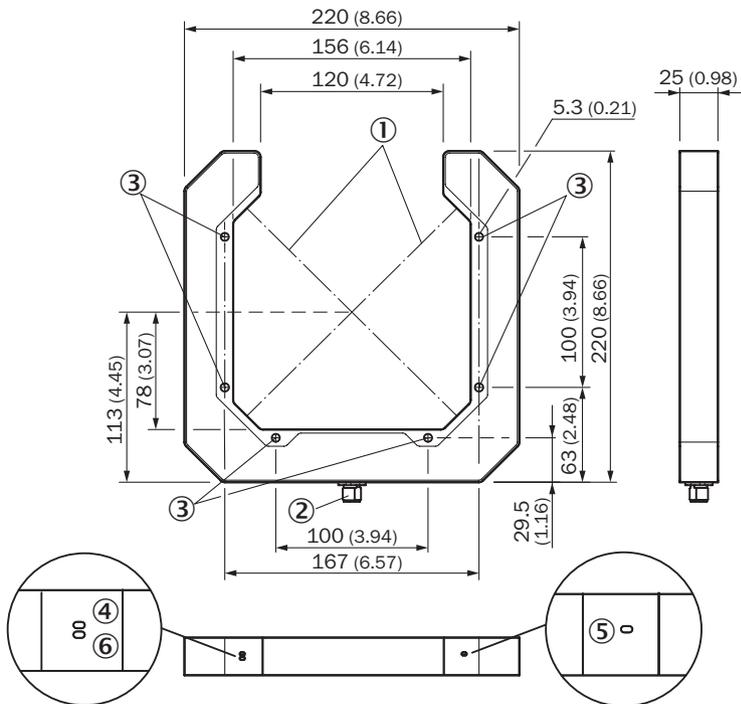
Ambient data

Ambient operating temperature	-10 °C ... +50 °C
Ambient temperature, storage	-30 °C ... +65 °C
Ambient light immunity	≤ 10,000 lx
Shock load	According to EN 60068-2-27

Classifications

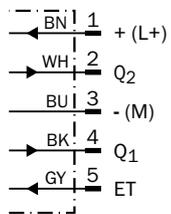
ECLASS 5.0	27270909
ECLASS 5.1.4	27270909
ECLASS 6.0	27270909
ECLASS 6.2	27270909
ECLASS 7.0	27270909
ECLASS 8.0	27270909
ECLASS 8.1	27270909
ECLASS 9.0	27270909
ECLASS 10.0	27270909
ECLASS 11.0	27270909
ECLASS 12.0	27270909
ETIM 5.0	EC002720
ETIM 6.0	EC002720
ETIM 7.0	EC002720
ETIM 8.0	EC002720
UNSPSC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

Dimensional drawing (Dimensions in mm (inch))



- ① Optical axis
- ② Male connector M12, 5-pin
- ③ Mounting hole, Ø 5.4 mm
- ④ LED indicator green: power
- ⑤ Status indicator LED, yellow: Status of received light beam (switching output 1)
- ⑥ Status indicator LED, yellow: Status of received light beam (switching output 2)

Connection diagram



Recommended accessories

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

	Brief description	Type	Part no.
Plug connectors and cables			
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A15-020UB5XLEAX	2095617
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A15-050UB5XLEAX	2095618
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A15-100UB5XLEAX	2095619
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A15-020UB5XLEAX	2095772
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A15-050UB5XLEAX	2095773
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A15-100UB5XLEAX	2095774
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 1 m	YF2A15-010UB5M2A15	2096007
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 1.5 m	YF2A15-015UB5M2A15	2096008
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A15-020UB5M2A15	2096009
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A15-050UB5M2A15	2096010
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A15-100UB5M2A15	2096011
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A15-020UB5M2A15	2095601

	Brief description	Type	Part no.
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A15-050UB5M2A15	2095602
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m Only suitable for PNP sensors	YI2A15-020UB5M2A15	2096138

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