Product data sheet

UFW3-43B717ZZZ

UFW

FORK SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
UFW3-43B717ZZZ	6086479

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

Detailed technical data

Features

Functional principle	Ultrasonic detection principle
Dimensions (W x H x D)	23.5 mm x 67 mm x 67.5 mm
Housing design	Fork shaped
Fork width	30 mm
Fork depth	43 mm
Detection area	12 mm
Repeatability	± 0.1 mm
Resolution	0.01 mm
Adjustment	Teach-in button, cable (One Point Adjustment, Two Point Adjustment, analog output: current/voltage, rising/falling)
Teach-in mode	One Point Adjustment Two Point Adjustment

Mechanics/electronics

Supply voltage	20 V DC ... 30 V DC [1]
Ripple	< 10 % [2]
Current consumption	60 mA [3]
Ultrasonic frequency	170 kHz

[1] Reverse polarity protected.
[2] May not exceed or fall below U_V tolerances.
[3] Without load.
[4] Reference voltage DC 50 V.

Response time	5.1 ms
Switching output	Push-pull: PNP/NPN
Switching output (voltage)	Push-pull: PNP/NPN High = U_V - < 3 V/Low: ≤ 3 V
Output current $I_{max.}$	100 mA
Initialization time	< 300 ms
Connection type	Male connector M12, 5-pin
Protection class	III [4]
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP67
Weight	Approx. 190 g
Housing material	Zinc diecast PBT
Sensing face material	Ultrasonic transducer: polyurethane foam, glass epoxy resin
Indication	LED green: Material edge aligned with the material positioning marking LED yellow: Material edge not aligned with the material positioning marking or outside detection area

[1] Reverse polarity protected.
[2] May not exceed or fall below U_V tolerances.
[3] Without load.
[4] Reference voltage DC 50 V.

Communication interface

IO-Link	✓, V1.1
Data transmission rate	COM3 (230,4 kBaud)
Cycle time	4 ms
VendorID	26
DeviceID HEX	8389419
DeviceID DEC	0x80032B
Process data length	32 Bit
Process data structure A	Bit 0 = switching signal Q_{L1} Bit 1 ... 7 = empty Bit 8 ... 15 = Skala Bit 16 ... 31 = measured value
Analog output	Q_A
Number	1
Type	Current output / voltage output
Current	4 mA ... 20 mA
Voltage	0 V ... 10 V
Digital output	Q_1
Number	1

Ambient data

Ambient operating temperature	+5 °C ... +60 °C
Ambient temperature, storage	–40 °C ... +85 °C

[1] The sensor complies with the Electromagnetic compatibility (EMC) for the industrial sector (Radio Safety Class A).

Shock load	According to EN 60068-2-27
EMC	EN 60947-5-2 [1)]
UL File No.	NRKH.E191603 & NRKH7.E191603

[1)] The sensor complies with the Electromagnetic compatibility (EMC) for the industrial sector (Radio Safety Class A).

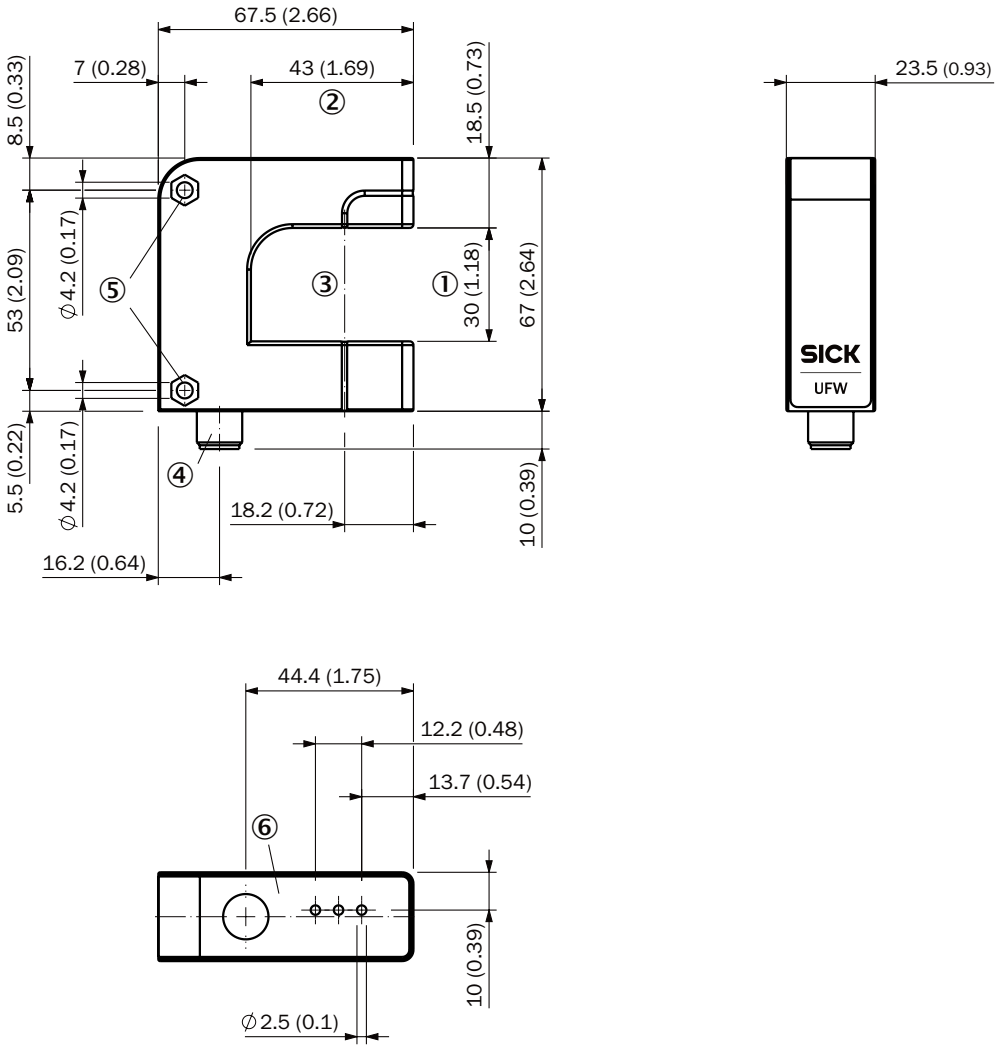
Classifications

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 type/pinouts

Connection type		Male connector M12, 5-pin
Pinouts		
	BN 1	+ (L+)
	WH 2	Q_A
	BU 3	- (M)
	BK 4	Q/C
	GY 5	MF

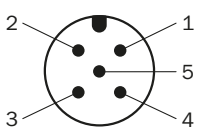
Dimensional drawing (Dimensions in mm (inch))



① Fork width
② Fork depth
③ Detection axis
④ Male connector M12, 5-pin
⑤ Fixing hole
⑥ Display and adjustment elements

Pinouts

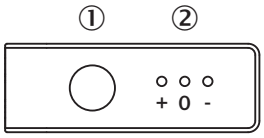
Pinouts, see technical data: **Connection type/pinouts**



Male connector, M12, 5-pin, A-coded

Adjustments

Display and adjustment elements



① Teach-in button
② LEDs (status display)

Recommended accessories

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

	Brief description	Type	Part no.
Connection modules			
	IO-Link V1.1 Class A port, USB2.0 port, optional external power supply 24V / 1A	IOLA2US-01101 (SiLink2 Master)	1061790
	• **Connection type head A:** Male connector, M12, 4-pin, A-coded • **Connection type head B:** Female connector, M12, 4-pin, A-coded • **Connection type head C:** Female connector, M12, 4-pin, A-coded • **Signal type:** Sensor/actuator cable • **Cable:** 0.11 m, PVC • **Description:** Sensor/actuator cable, Y-Junction, 2 x female connector M12, 4-pin, straight, 0.11 m PVC-cable, 1 x male connector M12, 4-pin, straight, to connect SICK Sensors with SICK Smart Sensors • **Note:** T-coupler 2 x M12 female + M12 male straight with cable	SYL-1204-G0M11-X1	6055011
	• **Connection type head A:** Female connector, M12, 5-pin, straight, A-coded • **Description:** Unshielded, Head A: female connector, M12, 5-pin, straight, unshielded, for cable diameter 4 mm ... 6 mm Head B: - • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	DOS-1205-G	6009719
	• **Connection type head A:** Male connector, M12, 5-pin, straight, A-coded • **Description:** Unshielded, Head A: male connector, M12, 5-pin, straight, unshielded, for cable diameter 4 mm ... 6 mm Head B: - • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Note:** For field bus technology	STE-1205-G	6022083
	• **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, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals	YF2A15-050VB5XLEAX	2096240
Sensor Integration Gateway			
	• **Further functions:** Web server integrated, IIoT interface available (dual talk) • **Logic editor:** no • **Communication interface:** IO-Link, Ethernet, PROFINET, REST API, MQTT, OPC UA • **Product category:** IO-Link Master	SIG350-0004AP100	6076871
	• **Further functions:** Web server integrated, IIoT interface available (dual talk) • **Logic editor:** no • **Communication interface:** IO-Link, Ethernet, EtherNet/IP™, REST API, MQTT, OPC UA • **Product category:** IO-Link Master	SIG350-0005AP100	6076923

	Brief description	Type	Part no.
	• **Further functions:** Web server integrated, IIoT interface available (dual talk) • **Logic editor:** no • **Communication interface:** IO-Link, Ethernet, EtherCAT®, REST API, MQTT, OPC UA • **Product category:** IO-Link Master	SIG350-0006AP100	6076924

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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