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DATA SHEET

UFW3-43B717IZZ

UFW
Fork sensors

SICK
Sensor Intelligence



Illustration may differ

FORK SENSORS

UFW3-43B717IZZ

ORDERING INFORMATION

Type	part no.
UFW3-43B717IZZ	6086478

Further device versions and accessories at www.sick.com/UFW

DETAILED TECHNICAL DATA

FEATURES

Functional principle	Ultrasonic detection principle
Housing design	Fork shaped
Dimensions (W x H x D)	23.5 mm x 67 mm x 67.5 mm
Fork width	30 mm
Fork depth	43 mm
Detection zone	12 mm
Resolution	0.01 mm
Repeatability	± 0.1 mm
Display	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
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
Safety-related parameters	
$MTTF_D$	531 years

INTERFACES

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 = scale

	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

ELECTRONICS

Supply voltage	20 V DC ... 30 V DC [1]
Ripple	< 10 % [2]
Current consumption	60 mA [3]
Initialization time	< 300 ms
Ultrasonic frequency	170 kHz
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
Protection class	III [4]
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Connection type	Plug, M12, 5-pin
Pinouts	
BN 1	+ (L+)
WH 2	Q_A
BU 3	- (M)
BK 4	Q/C
GY 5	$MF_{In/Out}$

[1] Reverse polarity protected.

[2] May not fall below or exceed U_V tolerances.

[3] Without load.

[4] Reference voltage DC 50 V.

MECHANICS

Housing material	Zinc diecast PBT
Sensing face material	Ultrasonic transducer: polyurethane foam, glass epoxy resin
Weight	Approx. 190 g

AMBIENT DATA

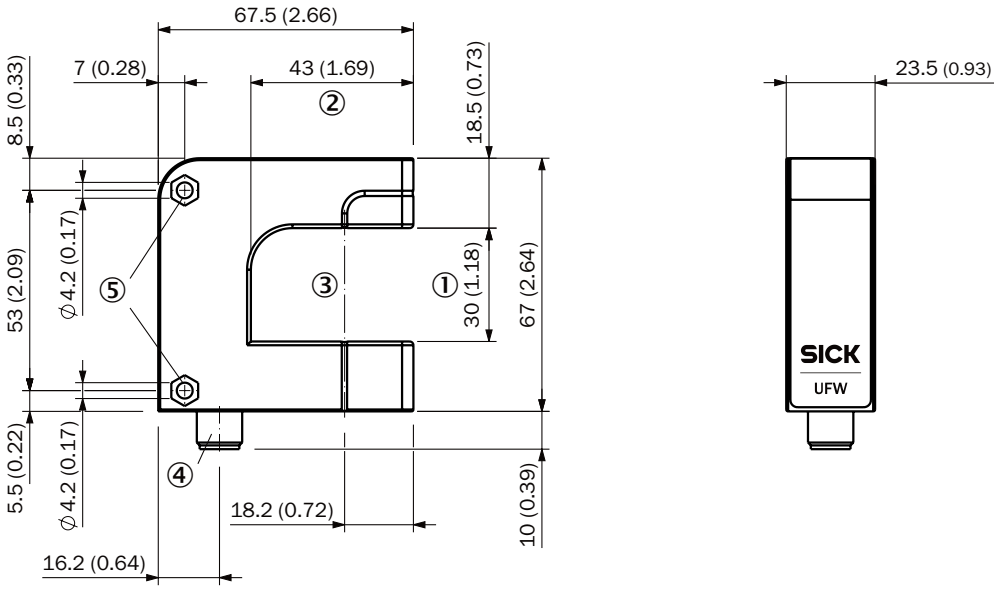
Ambient operating temperature	+5 °C ... +60 °C
Ambient temperature, storage	–40 °C ... +85 °C
Shock load	According to EN 60068-2-27
EMC	EN 60947-5-2 [1]
Enclosure rating	IP65
UL File No.	NRKH.E191603 & NRKH7.E191603

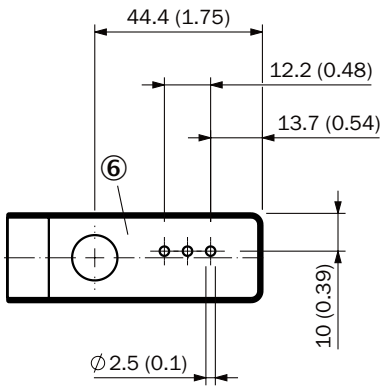
[1] The sensor complies with the electromagnetic compatibility (EMC) requirements for the industrial sector (Radio Safety Class A).

CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓
IO-Link certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

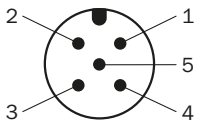
DIMENSIONAL DRAWING





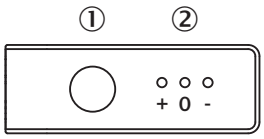
Dimensions in mm (inch)
① Fork width
② Fork depth
③ Detection axis
④ Plug, M12, 5-pin
⑤ fixing hole
⑥ display and adjustment elements

PINOUTS, SEE TABLE TECHNICAL DATA: ELECTRONICS



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

DISPLAY AND ADJUSTMENT ELEMENTS



① Teach-in button
② LEDs (status display)

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6086478

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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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