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DATA SHEET

UC4-13346

UC4
Ultrasonic distance sensors

SICK Sensor Intelligence



ULTRASONIC DISTANCE SENSORS

UC4-13346

ORDERING INFORMATION

Type	part no.
UC4-13346	6054708

Further device versions and accessories at www.sick.com/UC4

DETAILED TECHNICAL DATA

FEATURES

Operating range, limiting range	20 mm ... 150 mm, 250 mm [1]
Target	Natural objects
Resolution	≥ 0.1 mm
Repeatability	± 0.15 % [2]
Measurement accuracy	± 1 % [3]
Temperature compensation	✓
Response time	24 ms [4]
Output time	8 ms
Ultrasonic frequency (typical)	380 kHz
Detection area (typical)	See diagrams
Additional function	Adjustable operating modes: Switching point (DtO) / Switching window/Background (ObSB), teach-in of digital output, invertable digital output, teach-in button(s) (can be deactivated), reset to factory default [5]
Safety-related parameters	
$MTTF_D$	101 years
DC_{avg}	0%

[1] Teach-in from 21 mm.

[2] In relation to the current measured value, minimum value ≥ resolution.

[3] Referring to current measurement value.

[4] Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

[5] Functions may vary depending on sensor type.

INTERFACES

Analog output	
Number	1
Type	Current output
Current	4 mA ... 20 mA, ≤ 500 Ω [1]
Resolution	12 bit

[1] For 4 mA ... 20 mA and V_s ≤ 20 V max. load ≤ 100 Ω.

ELECTRONICS

Supply voltage U_B	DC 15 V ... 30 V [1]
Power consumption	≤ 0.75 W [2]
Initialization time	< 300 ms
Indication	2 x LED
Enclosure rating	IP65 / IP67
Protection class	III

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

[2] Without load.

MECHANICS

Dimensions (W x H x D)	16 mm x 40.1 mm x 16.7 mm
Design	Rectangular
Sending axis	Straight
Housing material	Plastic (ABS, ultrasonic transducer: polyurethane foam, glass epoxy resin)
Weight	10 g
Connection type	Male connector, M8, 3-pin

AMBIENT DATA

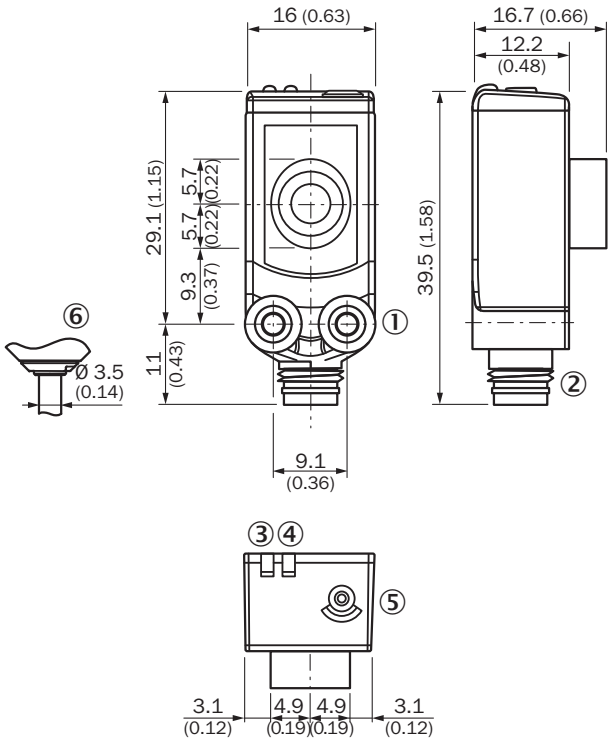
Ambient temperature, operation	-25 °C ... +70 °C [1]
Ambient temperature, storage	-40 °C ... +85 °C

[1] At operating temperatures of > 50 °C, the rear side of the UC4 must be installed with its surface flat against a bracket.

CERTIFICATES

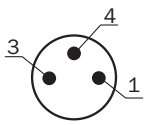
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) ex-empt	✓
cULus certificate	✓

DIMENSIONAL DRAWING

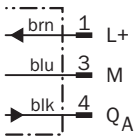


Dimensions in mm (inch)
① Threaded mounting hole M3
② Connection
③ status indicator digital output (orange)
④ Status display for supply voltage active (green)
⑤ Control elements

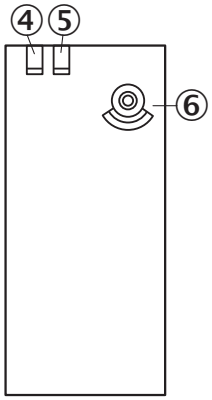
CONNECTION TYPE CONNECTOR M8, 3-PIN



CONNECTION DIAGRAM

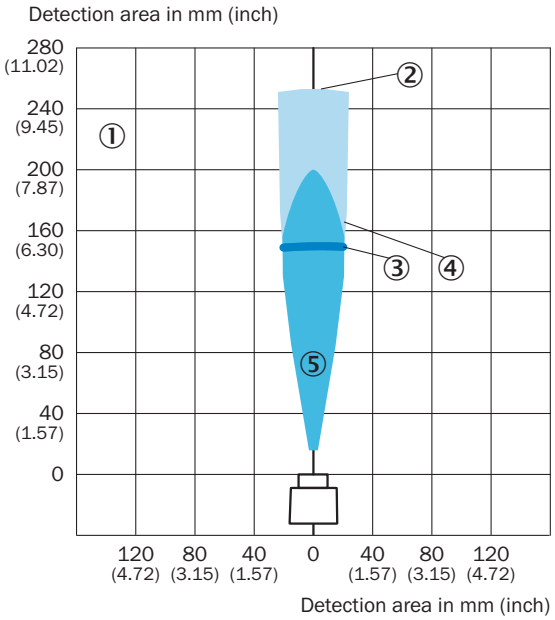


ADJUSTMENT POSSIBLE



④ status indicator digital output (orange)
⑤ Status display for supply voltage active (green)
⑥ Control elements

DETECTION AREA UC4-13



① Detection range dependent on reflection properties, size, and alignment of the object
② Limiting range
③ operating range
④ Example object: aligned plate 100 mm x 100 mm
⑤ Example object: cylindrical bar with a diameter of 10 mm

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/6054708

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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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