



UC4-13346

UC4

ULTRASONIC SENSORS

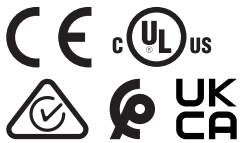
**SICK**  
Sensor Intelligence.



## Ordering information

Type	part no.
UC4-13346	6054708

Other models and accessories → [www.sick.com/UC4](http://www.sick.com/UC4)



## Detailed technical data

### Features

<b>Operating range, limiting range</b>	20 mm ... 150 mm, 250 mm <sup>1)</sup>
<b>Target</b>	Natural objects
<b>Resolution</b>	≥ 0.1 mm
<b>Repeatability</b>	± 0.15 % <sup>2)</sup>
<b>Measurement accuracy</b>	± 1 % <sup>3)</sup>
<b>Temperature compensation</b>	✓
<b>Response time</b>	24 ms <sup>4)</sup>
<b>Output time</b>	8 ms
<b>Ultrasonic frequency (typical)</b>	380 kHz
<b>Detection area (typical)</b>	See diagrams
<b>Additional function</b>	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 <sup>5)</sup>
<b>Safety-related parameters</b>	MTTF <sub>D</sub> 101 years
	DC <sub>avg</sub> 0%

<sup>1)</sup> Teach-in from 21 mm.

<sup>2)</sup> In relation to the current measured value, minimum value ≥ resolution.

<sup>3)</sup> Referring to current measurement value.

<sup>4)</sup> Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

<sup>5)</sup> Functions may vary depending on sensor type.

## Interfaces

<b>Analog output</b>	
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<sup>1)</sup> For 4 mA ... 20 mA and V<sub>S</sub> ≤ 20 V max. load ≤ 100 Ω.

Number	1
Type	Current output
Current	4 mA ... 20 mA, $\leq 500 \Omega$ <sup>1)</sup>
Resolution	12 bit

<sup>1)</sup> For 4 mA ... 20 mA and  $V_s \leq 20$  V max. load  $\leq 100 \Omega$ .

## Electronics

Supply voltage $U_B$	DC 15 V ... 30 V <sup>1)</sup>
Power consumption	$\leq 0.75$ W <sup>2)</sup>
Initialization time	< 300 ms
Indication	2 x LED
Enclosure rating	IP65 / IP67
Protection class	III

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

<sup>2)</sup> 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 <sup>1)</sup>
Ambient temperature, storage	-40 °C ... +85 °C

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

## Certificates

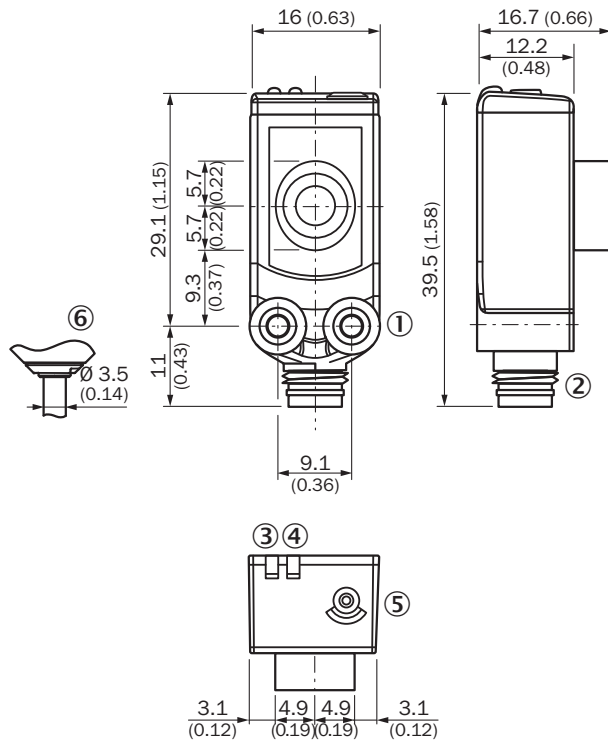
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓

## Classifications

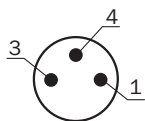
ECLASS 5.0	27270804
ECLASS 5.1.4	27270804
ECLASS 6.0	27270804
ECLASS 6.2	27270804
ECLASS 7.0	27270804
ECLASS 8.0	27270804

<b>ECLASS 8.1</b>	27270804
<b>ECLASS 9.0</b>	27270804
<b>ECLASS 10.0</b>	27270804
<b>ECLASS 11.0</b>	27270804
<b>ECLASS 12.0</b>	27272806
<b>ETIM 5.0</b>	EC001846
<b>ETIM 6.0</b>	EC001846
<b>ETIM 7.0</b>	EC001846
<b>ETIM 8.0</b>	EC001846
<b>UNSPSC 16.0901</b>	41111960

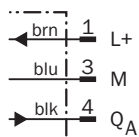
## Dimensional drawing



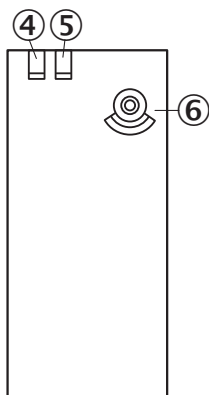
## Connection type Connector M8, 3-pin



## Connection diagram

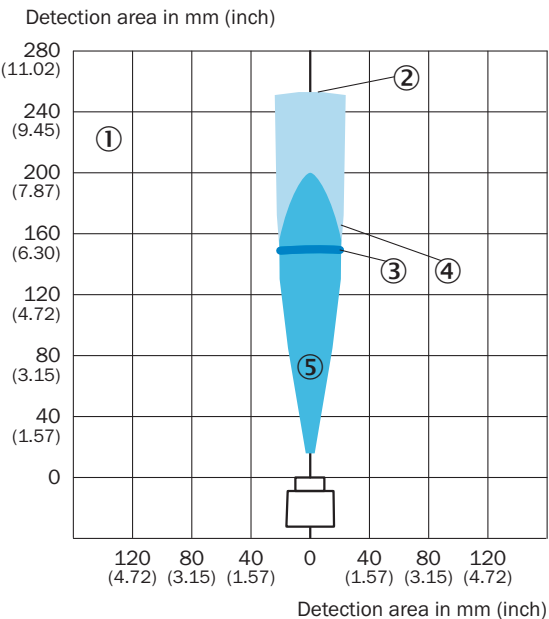


## Adjustment possible



- 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

Recommended accessories

Other models and accessories → [www.sick.com/UC4](http://www.sick.com/UC4)

Brief description		Type	part no.
Mounting systems			
	<ul style="list-style-type: none"><li>• <b>Description:</b> Mounting bracket for wall mounting</li><li>• <b>Material:</b> Stainless steel</li><li>• <b>Details:</b> Stainless steel 1.4571</li><li>• <b>Items supplied:</b> Mounting hardware included</li><li>• <b>Suitable for:</b> W4S, W4F, W4S</li></ul>	BEF-W4-A	2051628
	<ul style="list-style-type: none"><li>• <b>Description:</b> Accessory for ultrasonic channeling for the product family UC4</li></ul>	SonicTube UC4	5329249

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"><li>• <b>Connection type head A:</b> Female connector, M8, 3-pin, straight, A-coded</li><li>• <b>Connection type head B:</b> Flying leads</li><li>• <b>Signal type:</b> Sensor/actuator cable</li><li>• <b>Cable:</b> 2 m, 3-wire, PVC</li><li>• <b>Description:</b> Sensor/actuator cable, unshielded</li><li>• <b>Application:</b> Zones with chemicals, Uncontaminated zones</li></ul>	YF8U13-020VA1XLEAX	2095860
	<ul style="list-style-type: none"><li>• <b>Connection type head A:</b> Female connector, M8, 3-pin, straight, A-coded</li><li>• <b>Connection type head B:</b> Flying leads</li><li>• <b>Signal type:</b> Sensor/actuator cable</li><li>• <b>Cable:</b> 0.6 m, 3-wire, PVC</li><li>• <b>Description:</b> Sensor/actuator cable, unshielded</li><li>• <b>Application:</b> Zones with chemicals, Uncontaminated zones</li></ul>	YF8U13-C60VA1XLEAX	2146368

## 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](http://www.sick.com)