



UC4-13346

UC4

ULTRASONIC SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|-----------|----------|
| UC4-13346 | 6054708 |

Other models and accessories → www.sick.com/UC4



Detailed technical data

Performance

| | |
|--|---|
| Operating range, limiting range | 20 mm ... 150 mm, 250 mm ¹⁾ |
| Target | Natural objects |
| Resolution | ≥ 0.1 mm |
| Repeatability | ± 0.15 % ²⁾ |
| Accuracy | ± 1 % ²⁾ |
| Temperature compensation | ✓ |
| Response time | 24 ms ³⁾ |
| Output time | 8 ms |
| Ultrasonic frequency (typical) | 380 kHz |
| Detection area (typical) | See diagrams |
| Additional function | Set switching mode: Distance to object (DtO) / Window (Wnd) / Object between sensor and background (ObSB), Teach-in switching output, invertible, Teach-in analog output, invertible, temperature compensation, lock user interface ⁴⁾ |

¹⁾ Teach-in from 21 mm.

²⁾ Referring to current measurement value.

³⁾ Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

⁴⁾ Functions may vary depending on sensor type.

Interfaces

| | |
|---------------------------------|--|
| Analog output | 1 x 4 mA ... 20 mA (≤ 500 Ω) ¹⁾ |
| Resolution analog output | 12 bit |

¹⁾ For 4 mA ... 20 mA and $V_s \leq 20$ V max. load ≤ 100 Ω.

Mechanics/electronics

| | |
|--|--------------------------------|
| Supply voltage V_s | DC 15 V ... 30 V ¹⁾ |
| Power consumption | ≤ 0.75 W ²⁾ |

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

²⁾ Without load.

| | |
|----------------------------|--|
| Initialization time | < 300 ms |
| Design | Rectangular |
| Housing material | ABS-plastic Ultrasonic transducer: polyurethane foam, glass epoxy resin |
| Connection type | Male connector, M8, 3-pin |
| Indication | 2 x LED |
| Weight | 10 g |
| Sending axis | Straight |
| Enclosure rating | IP67 |
| Protection class | III |

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

2) Without load.

Ambient data

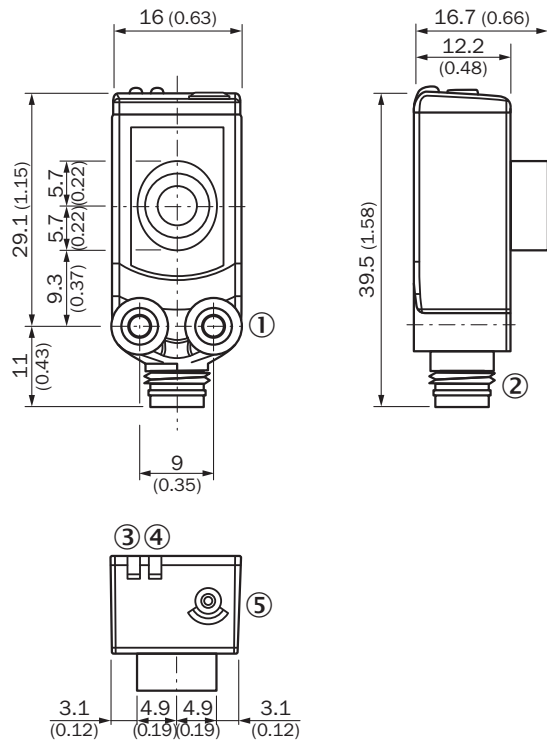
| | |
|--------------------------------------|---------------------------------|
| Ambient temperature operation | -25 °C ... +70 °C ¹⁾ |
| Ambient storage temperature | -40 °C ... +85 °C |

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

Classifications

| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27270804 |
| ECl@ss 5.1.4 | 27270804 |
| ECl@ss 6.0 | 27270804 |
| ECl@ss 6.2 | 27270804 |
| ECl@ss 7.0 | 27270804 |
| ECl@ss 8.0 | 27270804 |
| ECl@ss 8.1 | 27270804 |
| ECl@ss 9.0 | 27270804 |
| ETIM 5.0 | EC001846 |
| ETIM 6.0 | EC001846 |
| UNSPSC 16.0901 | 41111960 |

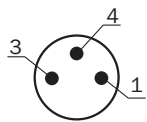
Dimensional drawing (Dimensions in mm (inch))



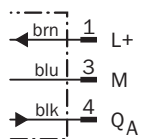
- ① Threaded mounting hole M3
- ② Connection
- ③ Status indicator switching output (orange)
- ④ Status indicator operating voltage active (green)
- ⑤ Operating elements

Connection type

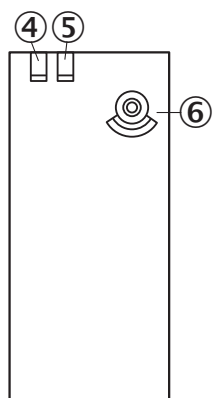
Connector M8, 3-pin



Connection diagram



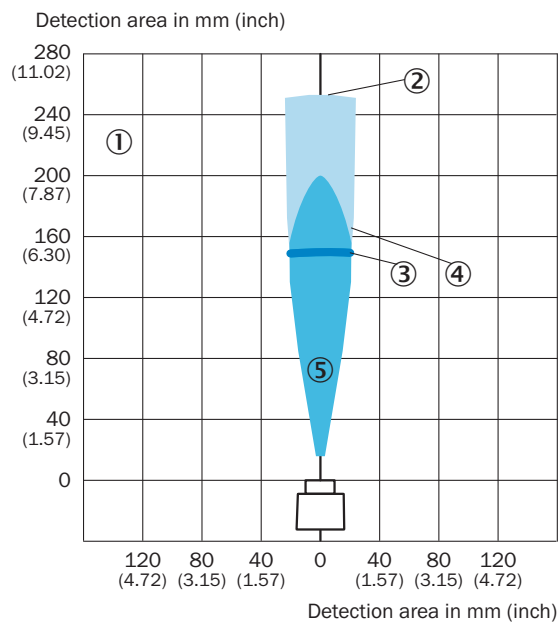
Adjustment possible



- ④ Status indicator switching output (orange)
- ⑤ Status indicator operating voltage active (green)
- ⑥ Operating 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

| | Brief description | Type | Part no. |
|---|--|--------------------|----------|
| Universal bar clamp systems | | | |
|  | Plate H for universal clamp bracket, steel, zinc coated, universal clamp and mounting hardware included | BEF-KHS-H01 | 2022465 |
| Mounting brackets and plates | | | |
|  | Mounting bracket for wall mounting, Stainless steel 1.4571, mounting hardware included | BEF-W4-A | 2051628 |
| Terminal and alignment brackets | | | |
|  | Ball clamp bracket, Plastic, mounting hardware included | BEF-GH-MINIO2 | 2027128 |
| Plug connectors and cables | | | |
|  | Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YF8U13-020VA1XLEAX | 2095860 |
|  | Head A: female connector, M8, 3-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YG8U13-020VA1XLEAX | 2096165 |
| Hardware | | | |
|  | Accessory for ultrasonic channeling for the product family UC4 | SonicTube UC4 | 5329249 |

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:

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