



UM12-1192211

UM12

ULTRASONIC SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
UM12-1192211	6053546

Other models and accessories → [www.sick.com/UM12](http://www.sick.com/UM12)



### Detailed technical data

#### Performance

<b>Working range, limiting range</b>	40 mm ... 240 mm, 350 mm
<b>Resolution</b>	≥ 0.069 mm
<b>Repeatability</b>	± 0.15 % <sup>1)</sup>
<b>Accuracy</b>	± 1 % <sup>1)</sup>
<b>Temperature compensation</b>	✓
<b>Response time</b>	30 ms
<b>Switching frequency</b>	25 Hz
<b>Output time</b>	10 ms
<b>Ultrasonic frequency (typical)</b>	500 kHz
<b>Additional function</b>	Set switching mode: Distance to object (DtO) / switching window (Wnd) / Object Between Sensor and Background (ObSB), teach-in of switching output, invertible switching output, temperature compensation, reset to factory default <sup>2)</sup>

<sup>1)</sup> Referring to current measurement value.

<sup>2)</sup> Functions may vary depending on sensor type.

#### Interfaces

<b>Switching output</b>	1 x PNP
<b>Hysteresis</b>	3 mm

#### Mechanics/electronics

<b>Supply voltage V<sub>s</sub></b>	DC 10 V ... 30 V <sup>1)</sup>
<b>Power consumption</b>	≤ 1.2 W <sup>2)</sup>
<b>Initialization time</b>	< 300 ms
<b>Design</b>	Cylindrical
<b>Housing material</b>	Nickel-plated brass PBT Ultrasonic transducer: polyurethane foam, glass epoxy resin
<b>Connection type</b>	Male connector, M12, 4-pin
<b>Indication</b>	2 x LED

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

<sup>2)</sup> Without load.

<b>Weight</b>	15 g
<b>Sending axis</b>	Straight

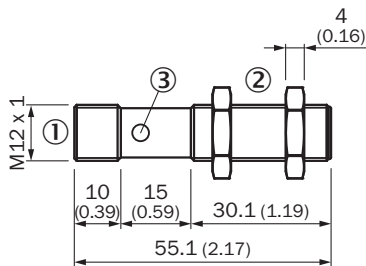
- 1) Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.  
2) Without load.

### Ambient data

<b>Enclosure rating</b>	IP 67
<b>Protection class</b>	III
<b>Ambient temperature</b>	Operation: -25 °C ... +70 °C Storage: -40 °C ... +85 °C

### Dimensional drawing (Dimensions in mm (inch))

UM12-11x2211, UM12-11x2251



- ① Connection
- ② Mounting nuts, SW 17 mm
- ③ Status display supply voltage active (green), switching and analog output (orange)

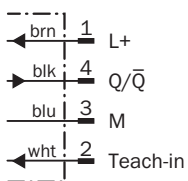
### Connection type

UM1x-x17 connector M12, 5-pin



### Connection diagram

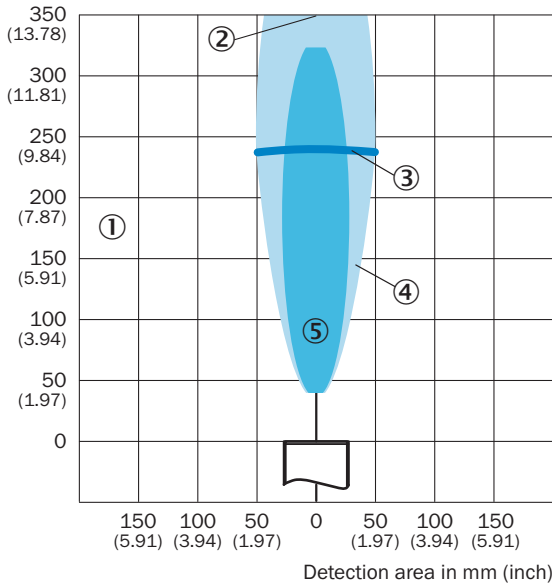
UM12-11x2211, UM12-11x2251



Detection area

UM12-119





Detection area in mm (inch)





- ① Sensing range dependent on reflection properties, size and orientation of the object
- ② Limiting range
- ③ Working range
- ④ Example object: aligned plate 500 mm x 500 mm
- ⑤ Example object: pipe with 10 mm diameter

Recommended accessories

Other models and accessories → [www.sick.com/UM12](http://www.sick.com/UM12)

	Brief description	Type	Part no.
<b>Universal bar clamp systems</b>			
	Plate N05 for universal clamp bracket, M12, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N05	2051611
<b>Mounting brackets and mounting plates</b>			
	Mounting plate for M12 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M12	5321869
	Mounting bracket, M12 thread, steel, zinc coated, without mounting hardware	BEF-WN-M12	5308447
<b>Terminal and alignment brackets</b>			
	Clamping block for round sensors M12, without fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included	BEF-KH-M12	2051479
<b>Plug connectors and cables</b>			

	Brief description	Type	Part no.
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383

## 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)