



UM30-211113

UM30

ULTRASONIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
UM30-211113	6036916



Detailed technical data

Performance

Working range, limiting range	30 mm ... 250 mm, 350 mm
Resolution	≥ 0.18 mm
Repeatability	± 0.15 % ¹⁾
Accuracy	± 1 % ^{1) 2)}
Temperature compensation	✓
Response time	50 ms
Output time	8 ms
Ultrasonic frequency (typical)	320 kHz
Detection area (typical)	See diagrams
Additional function	Teach-in of analog output, scaling of analog outputs, Invertable analog output, automatic selection of analog current or voltage output, temperature compensation, synchronization of up to 10 sensors, multiplexing: no cross talk of up to 10 sensors, set measurement filters: value filter, filter strength, adjustable sensitivity, foreground suppression and detection area, switch-off display, reset to factory default ³⁾

¹⁾ Referring to current measurement value.

²⁾ Temperature compensation can be switched off, without temperature compensation: 0.17 % / K.

³⁾ Functions may vary depending on sensor type.

Interfaces

Analog output	1 x 0 V ... 10 V (≥ 100 kΩ) ¹⁾ 1 x 4 mA ... 20 mA (≤ 500 Ω) ^{2) 1) 3)}
Resolution analog output	12 bit
Multifunctional input (MF)	1 x MF

¹⁾ Automatic selection of analog current or voltage output dependent on load.

²⁾ For 4 mA ... 20 mA and V_s ≤ 20 V max. load ≤ 100 Ω.

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

Mechanics/electronics

Supply voltage V_s	DC 9 V ... 30 V ^{1) 2)}
Power consumption	$\leq 2.4 \text{ W}$ ³⁾
Initialization time	< 300 ms
Design	Cylindrical
Housing material	Nickel-plated brass, PBT Display: TPU Ultrasonic transducer: polyurethane foam, glass epoxy resin
Connection type	Male connector, M12, 5-pin
Indication	LED display, 2 x LED
Weight	150 g
Sending axis	Straight

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

2) 15 V ... 30 V when using the analog voltage output.

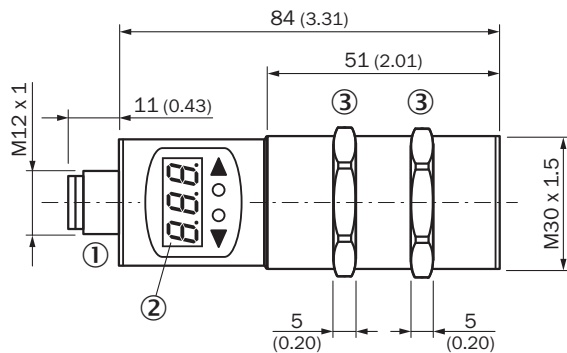
3) Without load.

Ambient data

Enclosure rating	IP 67
Protection class	III
Ambient temperature	Operation: $-25 \text{ }^\circ\text{C} \dots +70 \text{ }^\circ\text{C}$ Storage: $-40 \text{ }^\circ\text{C} \dots +85 \text{ }^\circ\text{C}$

Dimensional drawing (Dimensions in mm (inch))

UM30-211, UM30-212, UM30-213



- ① Connection
- ② Display
- ③ Mounting nuts, SW 36 mm

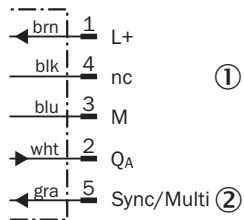
Connection type

Male connector M12, 5-pin



Connection diagram

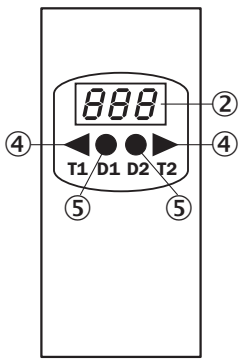
UM30-21x113 Connector M12, 5-pin



① Not assigned

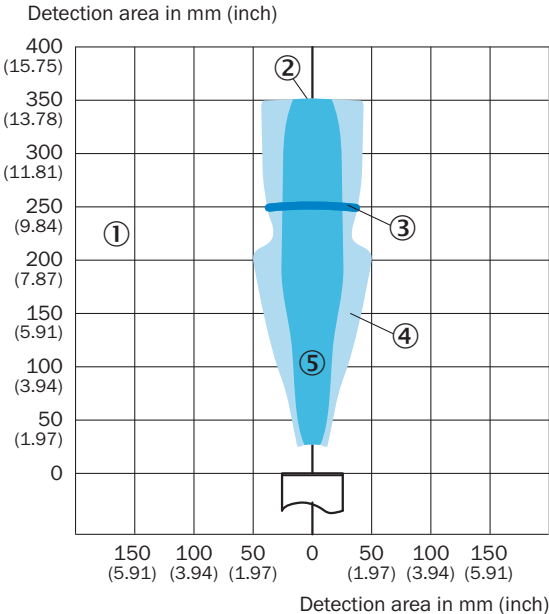
② Synchronization and multiplex operation/communication Connect+

Adjustment possible



Detection area

UM30-211





- 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.de/UM30

	Brief description	Type	Part no.
Mounting brackets and mounting plates			
	Mounting plate for M30 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M30	5321871
	Mounting bracket, M30 thread, steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445
Terminal and alignment brackets			
	Mounting bracket, M30, axial rotation possible, with threaded mounting hole M6, without mounting hardware	BEF-HA-M30A	5311527
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight Head B: Cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899

	Brief description	Type	Part no.
	Head A: female connector, M12, 5-pin, angled Head B: Cable Cable: PVC, unshielded, 2 m	DOL-1205-W02M	6008900
Programming and configuration tools			
	Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V	Connect+ adapter (CPA)	6037782