UM12-1192271

UM12

ULTRASONIC DISTANCE SENSORS

SICK
Sensor Intelligence.

UM12-1192271 | UM12
ULTRASONIC DISTANCE SENSORS

Ordering information

Type	Part no.
UM12-1192271	6053549

Other models and accessories ➜ www.sick.com/UM12

Detailed technical data

Mechanics/electronics

Supply voltage V_s	DC 15 V … 30 V [1]
Power consumption	≤ 1.2 W [2]
Initialization time	< 300 ms
Design	Cylindrical
Housing material	Metal (nickel-plated brass, PBT, ultrasonic transducer: polyurethane foam, glass epoxy resin)
Thread size	M12 x 1
Connection type	Male connector, M12, 4-pin
Indication	2 x LED
Weight	15 g
Sending axis	Straight
Dimensions (W x H x D)	12 mm x 12 mm x 60.1 mm
Enclosure rating	IP65 / IP67
Protection class	III

[1] Limit values, reverse-polarity protected Operation in short-circuit protected network: max. 8 A, class 2.
[2] Without load.

Safety-related parameters

$MTTF_D$	101 years
DC_{avg}	0%

Performance

Operating range, limiting range	40 mm … 240 mm, 350 mm
Target	Natural objects
Resolution	≥ 0.069 mm
Repeatability	± 0.15 % [1]
Accuracy	± 1 % [2]

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

Temperature compensation	✓
Response time	30 ms [3]
Output time	10 ms
Ultrasonic frequency (typical)	500 kHz
Additional function	Teach-in of analog output Invertable analog output Reset to factory default [4]

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

[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	
Number	1
Type	Voltage output
Voltage	0 V … 10 V, ≥ 100,000 Ω
Resolution	12 bit

Ambient data

Ambient temperature, operation	−25 °C … +70 °C
Ambient temperature, storage	−40 °C … +85 °C

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

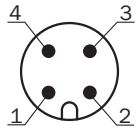## Dimensional drawing (Dimensions in mm (inch))
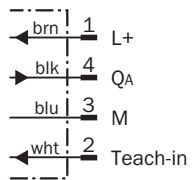
UM12-11x2261, UM12-11x2271
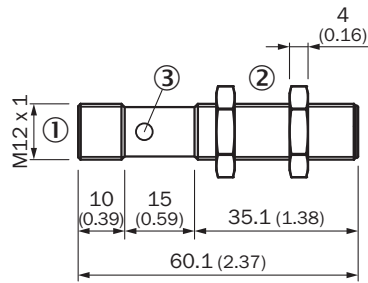
① Connection
② Mounting nuts, SW 17 mm
③ Status display supply voltage active (green), switching and analog output (orange)
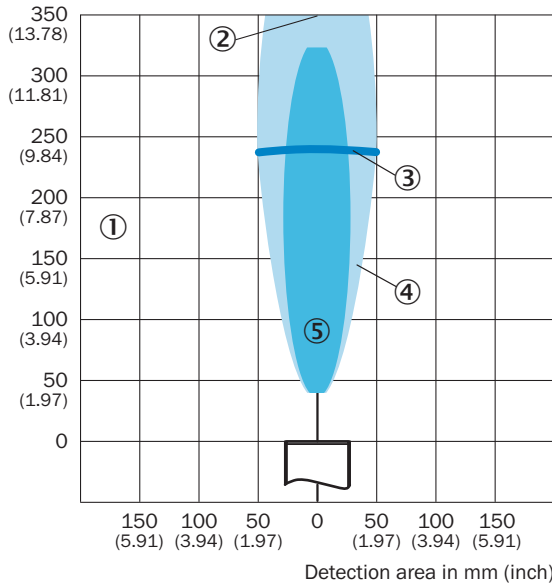
Connection type

Connection diagram

UM12-11x2261, UM12-11x2271

Wire	Pin	Signal
brn	1	L+
blk	4	Q_A
blu	3	M
wht	2	Teach-in

Detection area

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Detection area in mm (inch)

Detection area in mm (inch)

① Detection range dependent on reflection properties, size, and alignment of the object
② Limiting range
③ Operating range
④ Example object: aligned plate 500 mm x 500 mm
⑤ Example object: cylindrical bar with a diameter of 10 mm

Recommended accessories

Other models and accessories ➜ www.sick.com/UM12

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting plate for M12 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M12	5321869
Others			
	• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 2 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals	YF2A14-020VB3XLEAX	2096234

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."

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