



DATA SHEET

UM18-51112

UM18
Ultrasonic distance sensors

SICK

Sensor Intelligence



ULTRASONIC DISTANCE SENSORS

UM18-51112

ORDERING INFORMATION

Type	part no.
UM18-51112	6028964

Further device versions and accessories at www.sick.com/UM18

DETAILED TECHNICAL DATA

FEATURES

Operating range, limiting range	30 mm ... 250 mm, 350 mm
Resolution	≥ 0.08 mm
Repeatability	± 0.15 % ¹⁾
Measurement accuracy	≤ 2 % ²⁾
Response time	32 ms
Switching frequency	± 15 Hz
Output time	8 ms
Ultrasonic frequency (typical)	320 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 of digital output Invertable digital output Temperature compensation Multi functional input: external teach / synchronization of up to 10 sensors Reset to factory default

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

²⁾ Referring to current measurement value.

INTERFACES

Digital output	Number 2 ¹⁾ Type PNP Maximum output current I _A ≤ 500 mA
Multifunctional input (MF)	1 x
Hysteresis	2 mm

¹⁾ PNP: HIGH = V_{CC} - (< 2 V) / LOW = 0 V.

ELECTRONICS

Supply voltage U_b	DC 10 V ... 30 V ¹⁾
Power consumption	$\leq 1.2 \text{ W}$ ²⁾
Initialization time	< 300 ms
Display	2 x LED
Enclosure rating	IP65 / IP67

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

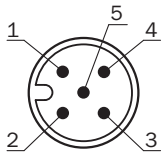
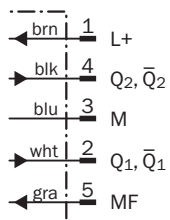
²⁾ Without load.

MECHANICS

Dimensions (W x H x D)	18 mm x 18 mm x 73.3 mm
Design	Cylindrical
Sending axis	Straight
Housing material	Metal, plastic (nickel-plated brass, PBT, ultrasonic transducer: polyurethane foam, glass epoxy resin)
Weight	55 g
Thread size	M18 x 1
Connection type	Male connector, M12, 5-pin

AMBIENT DATA

Ambient temperature, operation	-25 °C ... +70 °C
Ambient temperature, storage	-40 °C ... +85 °C

CONNECTION TYPE**CONNECTION DIAGRAM**

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6028964



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GERMANY
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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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