



Ultrasonic sensors UM18, UM18-1

UM18-11116

Model Name > [UM18-11116](#)
Part No. > [6029507](#)

At a glance

- Object detection independent of material color and ambient lighting even transparent foils, glass, liquids and bottles are detected
- Immune to dirt, dust, and fog
- Available with one or two PNP/NPN switching outputs or an analog output (voltage or current)
- Teach-in via Multi-Function input

Your benefits

- Easy machine integration with standard M18 housing
- Reliable operation in rough conditions ensures high machine availability
- Synchronization mode enables area detection, which improves application flexibility and increases productivity
- Unintentional adjustments to sensor settings are eliminated since teach-in process is done with an external wire
- Integrated temperature compensation ensures high measurement accuracy



Performance

Resolution:	≥ 0.08 mm
Working range, limiting range:	30 mm ... 250 mm, 350 mm
Repeatability ¹⁾ :	± 0.15 %
Accuracy ²⁾ :	≤ 2 %
Response time:	32 ms
Output rate:	8 ms
Ultrasonic frequency (typical):	320 kHz
Detection area (typical):	See diagrams
Additional function:	Teach-in of analog output Temperature compensation Reset to factory default Multi functional input: external teach/synchronization of up to 10 sensors Invertible analog output

^{1) 2)} Referring to current measurement value

Interfaces

Analog output ¹⁾ :	1 x 4 mA ... 20 mA (≤ 500 Ω)
Resolution analog output:	12 bit
Multifunctional input (MF):	1 x

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30 mm 250 mm 350 mm

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

Mechanics/electronics

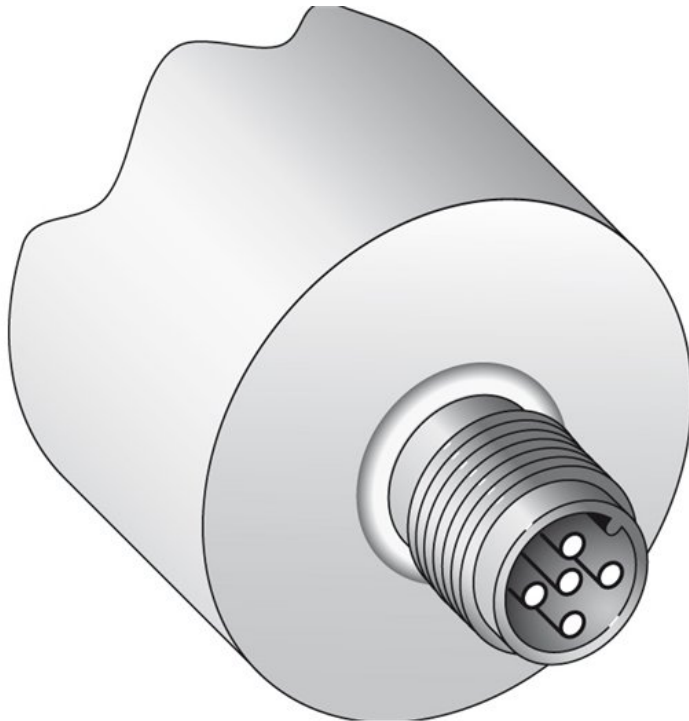
Supply voltage V_s ¹⁾ :	DC 10 V ... 30 V
Power consumption ²⁾ :	≤ 1.2 W
Initialization time:	< 300 ms
Housing material:	Nickel-plated brass, PBT ultrasonic transducer: polyurethane foam, glass epoxy resin
Connection type:	Connector, M12, 5-pin
Indication:	2 x LED
Weight:	55 g

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

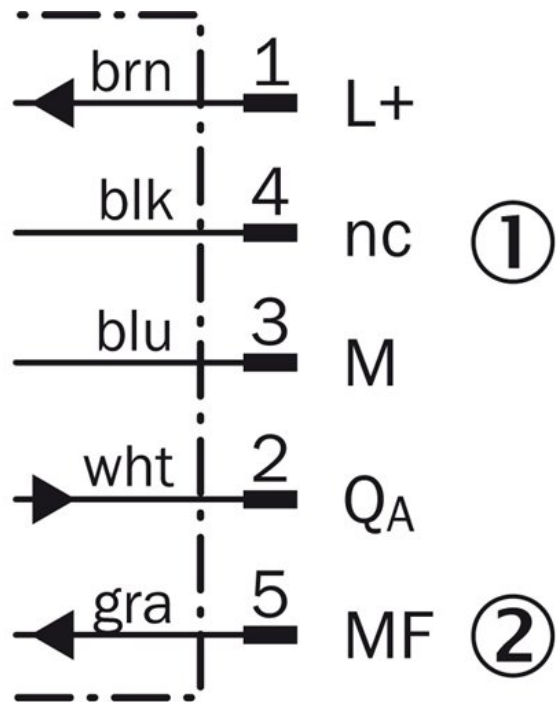
Ambient data

Enclosure rating:	IP 67
Ambient temperature:	Operation: -25 ... 70 °C Storage: -40 ... 85 °C

Connection type



Connection diagram



|1| not connected
|2| multifunctional input/synchronization
and multiplex operation/communication Connect+

Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com