



Ultrasonic sensors UM18, UM18-1

UM18-11116



Type > [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
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
Output time:	8 ms

^{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

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

Mechanics/electronics

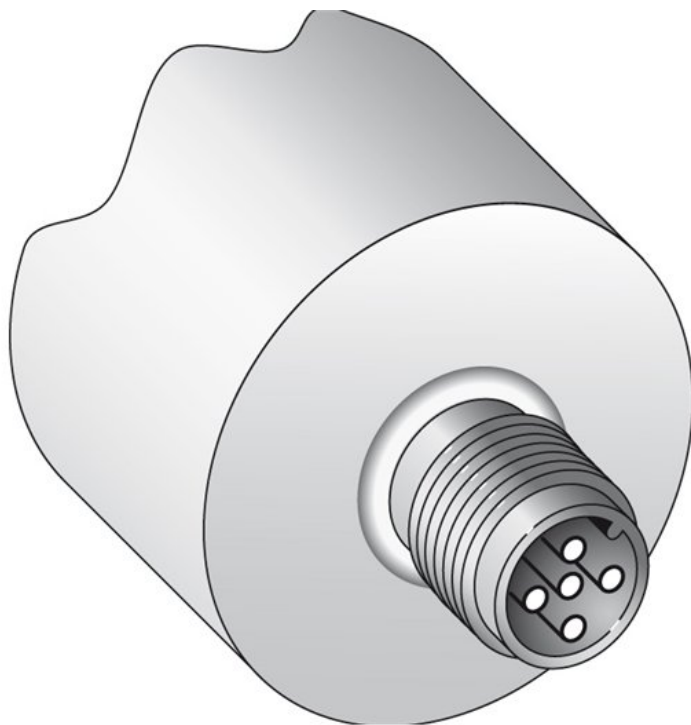
Supply voltage V_s ¹⁾ :	DC 10 V ... 30 V
Power consumption ²⁾ :	≤ 1.2 W
Initialization time:	< 300 ms
Housing:	Cylindrical
Housing material:	Nickel-plated brass, PBT ultrasonic transducer: polyurethane foam, glass epoxy resin
Connection type:	Male connector, M12, 5-pin
Indication:	2 x LED
Weight:	55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

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

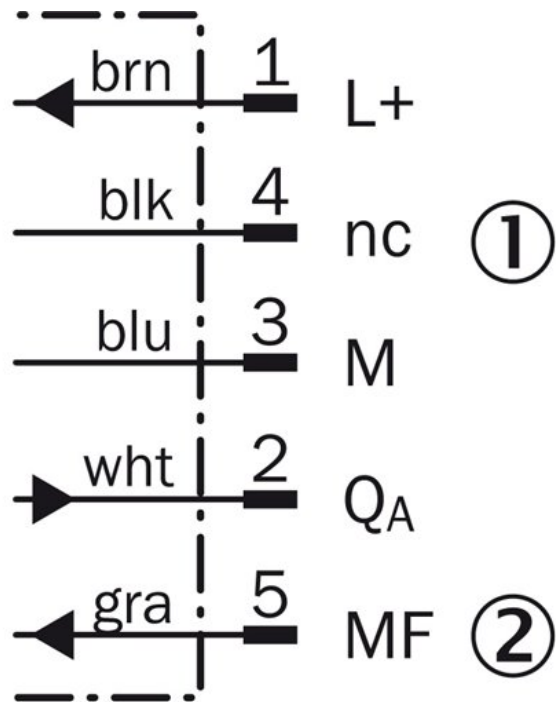
Ambient data

Enclosure rating:	IP 67
Ambient temperature:	Operation: $-25 \dots +70$ °C Storage: $-40 \dots +85$ °C

Connection type



Connection diagram



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

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