



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

Working range, limiting range:	30 mm ... 250 mm < 350 mm
Repeatability ¹⁾ :	± 0.15 %
Accuracy ²⁾ :	≤ 2 %
Output rate:	8 ms
Switching frequency:	15 Hz
Ultrasonic frequency (typical):	320 kHz
Detection area (typical):	See diagrams
Additional function:	Teach-in of analog output Invertible analog output temperature compensation Reset to factory default Multi functional input: external teach

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

Interfaces

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

1) For $V_s \leq 20 \text{ V}$ max. load $\leq 100 \Omega$

Mechanics/electronics

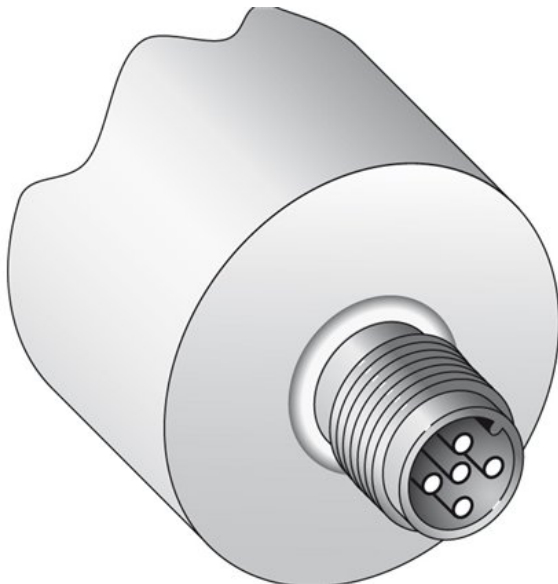
Supply voltage V_s ¹⁾ :	DC 10 V ... 30 V
Power consumption ²⁾ :	$\leq 1.2 \text{ W}$
Initialization time:	$< 300 \text{ ms}$
Housing material ³⁾ :	Nickel-plated brass, PBT
Connection type:	Connector M12, 5-pin
Indication:	2 x LED
Weight:	55 g

1) Limit values, reverse-polarity protected, operation in short-circuit protected network, max. 8 A²⁾ Without load³⁾ Ultrasonic transducer: polyurethane foam, glass epoxy resin

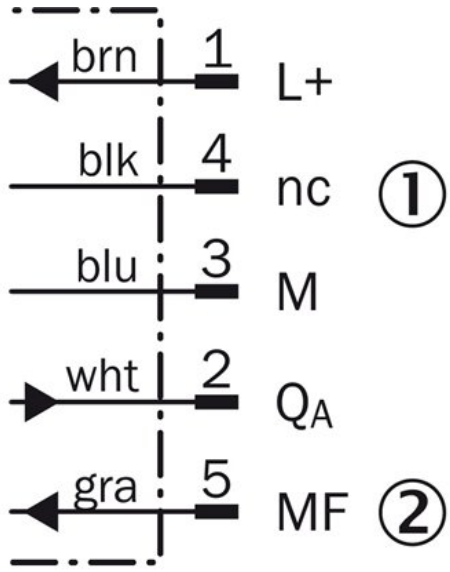
Ambient data

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

Connection type



Connection diagram



|1| not connected
|2| Multifunctional input

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