



Ultrasonic sensors UM18, UM18-1

UM18-11117



Model Name > [UM18-11117](#)
Part No. > [6029508](#)



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 x 0 V ... 10 V (≥ 100 kΩ) |
| Resolution analog output: | 12 bit |
| Multifunctional input (MF): | 1 x |

Mechanics/electronics

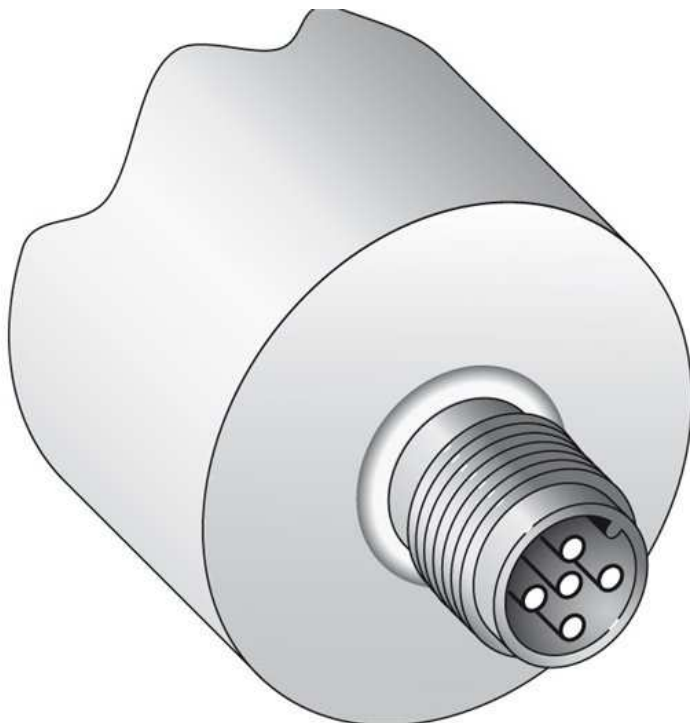
| | |
|--------------------------------------|---|
| Supply voltage V_s ¹⁾ : | DC 15 V ... 30 V |
| Power consumption ²⁾ : | ≤ 1.2 W |
| Initialization time: | < 300 ms |
| Design: | Cylindrical |
| Housing material: | Nickel-plated brass, PBT ultrasonic transducer: polyurethane foam, glass epoxy resin |
| Electrical connection: | 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 ... +70 °C Storage: -40 ... +85 °C |

Connection type



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