



Czujniki ultradźwiękowe UM18, UM18-2 Pro

UM18-21812A211



Nazwa modelu > [UM18-21812A211](#)

Numer części > [6048402](#)

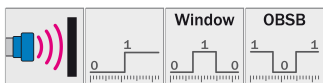


At a glance

- Reliable measurement independent of material color, transparency, gloss and ambient light
- Four ranges up to 1,300 mm
- Short M18 metal housing with a length of 41 mm
- Straight or right-angle versions
- Analog voltage, analog current or push-pull (PNP/NPN in one) switching output with IO-Link available
- Set-up via IO-Link and/or teach-in via multifunction input
- High immunity to dirt, dust, humidity and fog

Your benefits

- Ranges up to 1,300 mm offer plenty of options for flexible use
- Easy machine integration due to short M18 housing available in straight or right-angle versions
- Intelligent measurement filters ensure reliable measurement results for highest process stability
- Integrated temperature compensation ensures high measurement accuracy at any time for best process quality
- Solid, one-piece metal housing secures highest machine availability
- Synchronization or multiplexing allow simultaneous use of up to 10 sensors, which improves application flexibility and process stability
- Unintentional adjustments to sensor settings are eliminated since teach-in process is done with an external wire
- Devices with switching output and IO-Link allow highest machine flexibility while offering easy machine operation



Wydajność

Rozdzielczość:	≥ 0,069 mm
Working range, limiting range:	120 mm ... 1.000 mm, 1.300 mm
Odtwarzalność: ¹⁾ :	± 0,15 %
Accuracy ²⁾ , ³⁾ :	± 1 %
Czas reakcji:	80 ms
Output rate:	20 ms
Switching frequency:	10 Hz
Ultrasonic frequency (typical):	200 kHz
Detection area (typical):	See diagrams

Kompensacja temperatury:	✓
Additional function:	Set switching mode: Distance to object (DtO)/Window (Wnd)/Object between sensor and background (ObSB) Teach-in of switching output Inverted switching output IO-Link Kompensacja temperatury Synchronization of up to 10 sensors Multiplexing: no cross talk of up to 10 sensors Reset to factory default Multifunctional input: external teach/synchronization/multiplexing

^{1) 2)} Referring to current measurement value ³⁾ Temperature compensation can be switched off, without temperature compensation: 0.17 %/K

Interfejsy

Switching output ^{1), 2)} :	1 x push-pull: PNP/NPN (100 mA); IO-Link
Histeresa:	20 mm
Multifunctional input (MF):	1 x MF
BETRIEBSREICHWEITE-GR.COLL:	120 mm 1.000 mm 1.300 mm

¹⁾ Output Q short-circuit protected ²⁾ Push-Pull: PNP/NPN HIGH = U_V - (< 4 V)/LOW < 2 V

Mechanika/elektronika

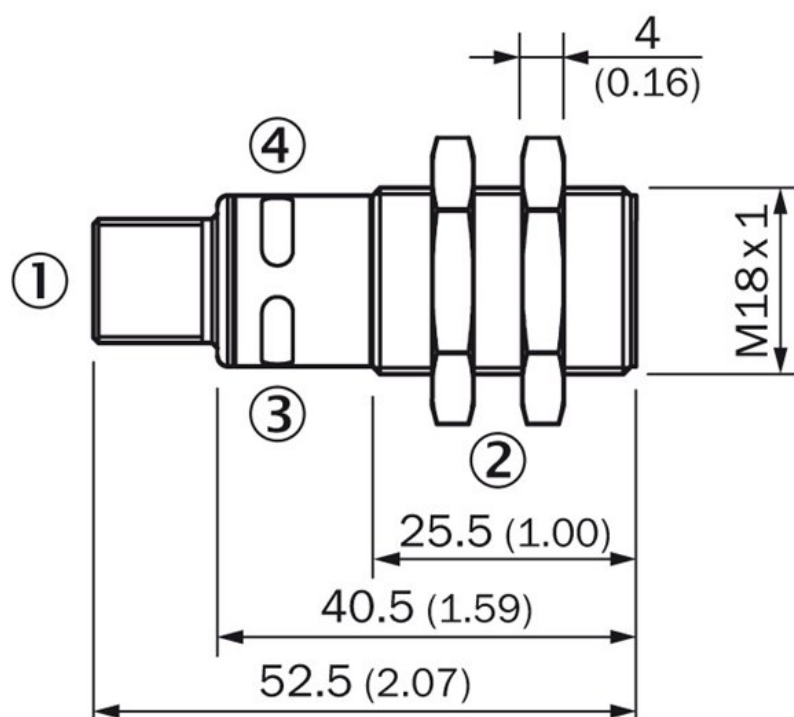
Sending axis:	Prosty
Napięcie zasilania VS ^{1), 2)} :	DC 10 V ... 30 V
Pobór mocy ³⁾ :	≤ 1,2 W
Initialization time:	< 300 ms
Housing material:	Mosiądz niklowany
Electrical connection:	Wtyk M12, 5-pinowe
Indication:	2 x LED
Ciężar:	25 g

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A ²⁾ 15 V ... 30 V when using analog voltage output ³⁾ Bez obciążenia

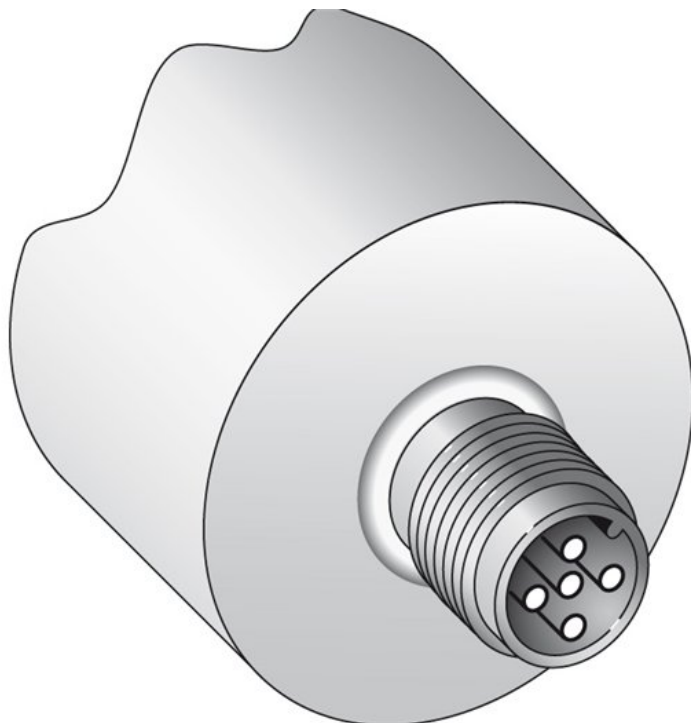
Dane otoczenia

Rodzaj zabezpieczenia:	IP 67
Klasa ochronności:	III
Ambient temperature:	Operation: -25 ... 70 °C Storage: -40 ... 85 °C

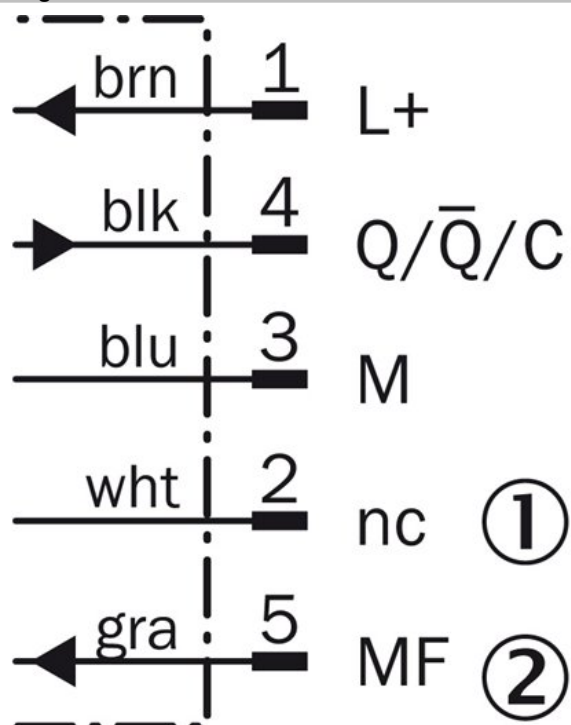
Dimensional drawing



Connection type

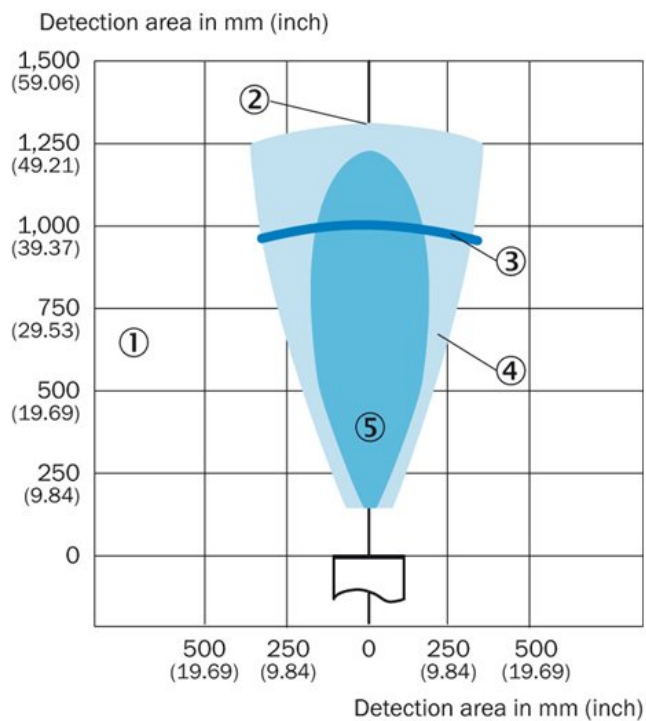


Connection diagram



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

Characteristic curve



- |1| Sensing range dependent on reflection properties, size and orientation of the object
- |2| Working range
- |3| Limiting range
- |4| example object: Aligned plate 500 mm x 500 mm
- |5| example object: Pipe with 27 mm diameter

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