



Level sensors
Ultrasonic level sensor

UP56-212148



Model Name > [UP56-212148](#)
Part No. > [6048943](#)



Illustration may differ

At a glance

- Ultrasonic level sensor with very high chemical resistance
- Non-contact measurement in immersion pipe of up to 1500 mm
- PTFE-coated membrane and GF D40 process connection made of PTFE
- Pressure resistant up to 6 bar, temperature resistant up to 85°C
- Different sizes available
- Analog output selectable between 4 mA to 20 mA and 0 V to 10 V
- Switching output for monitoring the maximum and minimum limit

Your benefits

- Non-contact and non-wearing measurement reduces maintenance and service cost
- Sensor replacement possible even with chemicals present, thus saving time and increasing availability
- Universally applicable with acidic and alkaline processes
- Flexible measurement system for different container sizes provides cost reductions
- High precision measurements, even in liquids with density fluctuations
- Faultless operation with very limited installation space in the container
- Switching and analog output in one sensor reduces amount of wiring, I/O and stocking costs
- Simple and time-saving configuration with Connect+



Features

Medium:	Fluids
Measurement:	Switch, Continuous
Process pressure:	0 bar ... 6 bar, gauge pressure
Process temperature:	-25 °C ... 85 °C
Measuring range in tank:	85 mm ... 350 mm
Measuring range immersion tube:	85 mm ... 1,500 mm

Performance

Resolution:	0.18 mm
Accuracy of sensor element:	≤ 1 % ¹⁾
Repeatability:	± 0.15 % ²⁾
Response time:	≤ 84 ms

1) 2) Of final value

Mechanical data

Housing material: PP, PTFE
Process connection: D40 GF connection
Housing design: Standard

Electrical data

Ultrasonic frequency: 320 kHz
Enclosure rating: IP 67
Supply voltage: 9 V DC ... 30 V DC ¹⁾
Residual ripple: $\pm 10 \%$
Power consumption: $\leq 80 \text{ mA}$ ²⁾
Time delay before availability: $\leq 300 \text{ ms}$
Output signal:: 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V ^{3) 4)}
Hysteresis: 5 mm
Signal voltage HIGH: $U_v - 3 \text{ V}$
Electrical connection: Round connector M12 x 1, 5-pin
Ultrasonic transducer: PTFE coating, FFKM

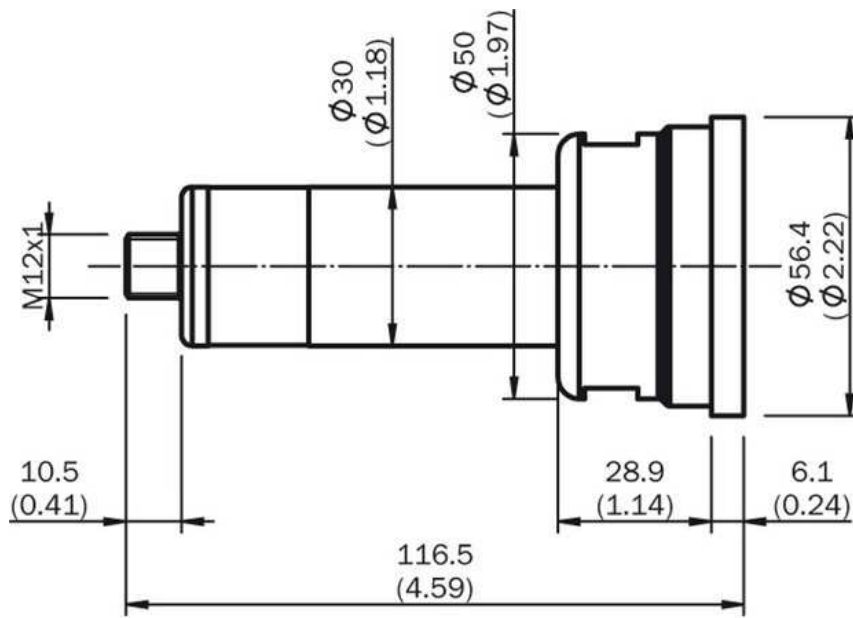
¹⁾ Reverse-polarity protected ²⁾ At 24 V DC without output load ³⁾ Short-circuit protected, reversible ⁴⁾ Automatic switching between voltage and current outputs
dependet on load 4 mA ... 20 mA: $RL \leq 100/$ at $9 \text{ V} \leq U_B \leq 20 \text{ V}$; $RL \leq 500/$ at $U_B \geq 20 \text{ V}$; 0 V ... 10 V: $RL \geq 100 \text{ k}/$ at $U_B \geq 15 \text{ V}$, short-circuit protected

Ambient data

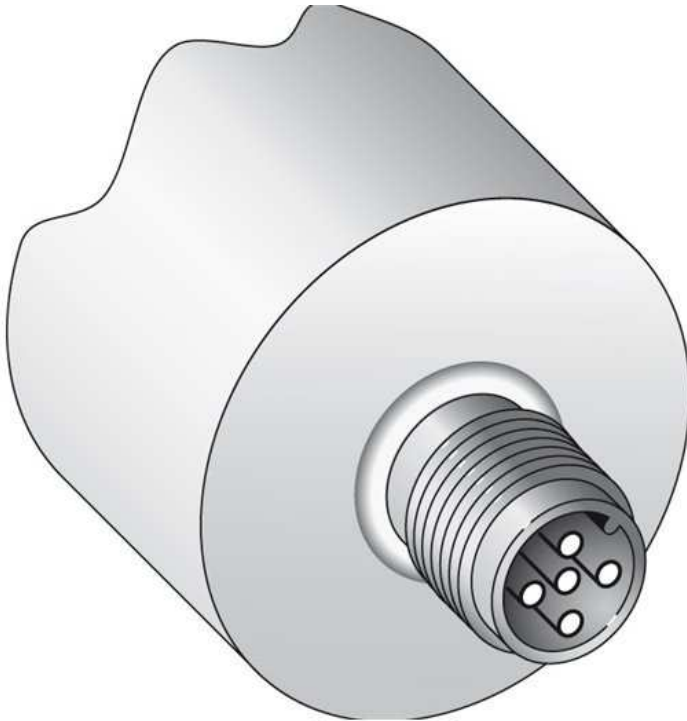
Ambient temperature operation: $-25 \text{ }^\circ\text{C} \dots 60 \text{ }^\circ\text{C}$ ¹⁾
Ambient storage temperature: $-40 \text{ }^\circ\text{C} \dots 85 \text{ }^\circ\text{C}$

¹⁾ Temperature compensation at $-25 \text{ }^\circ\text{C} \dots 50 \text{ }^\circ\text{C}$, can be switched off

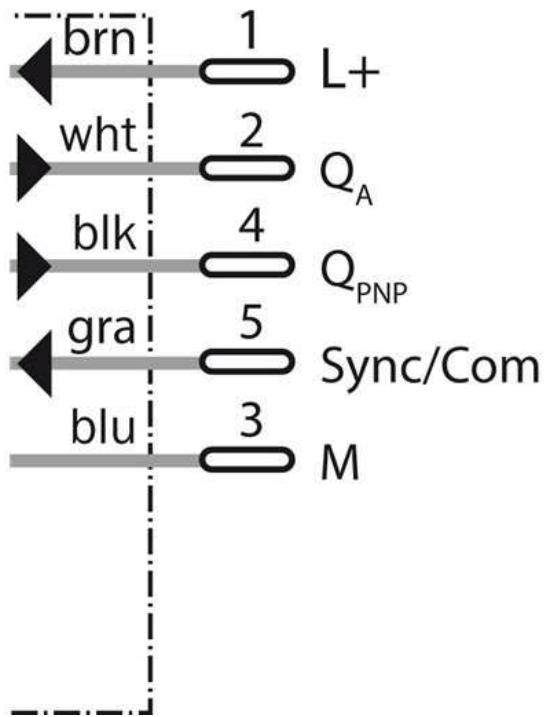
Dimensional drawing



Connection type



Connection diagram



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