



Level sensors Ultrasonic level sensor

UP56-211148



Model Name > [UP56-211148](#)
Part No. > [6048942](#)



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:	30 mm ... 250 mm
Measuring range immersion tube:	30 mm ... 500 mm

Performance

Resolution:	0.025 mm
Accuracy of sensor element:	≤ 1 % ¹⁾
Repeatability:	± 0.15 % ²⁾
Response time:	≤ 68 ms ³⁾

1) 2) Of final value 3) Recovery time 32 ms ... 180 ms according to EMC EN 60947-5-7

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⁾
Ripple:	± 10 %
Power consumption:	≤ 80 mA ²⁾
Time delay before availability:	≤ 300 ms
Output signal::	1 x PNP + 4 mA ... 20 mA/0 V ... 10 V ^{3) 4)}
Hysteresis:	3 mm
Signal voltage HIGH:	U _v - 3 V
Connection type:	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

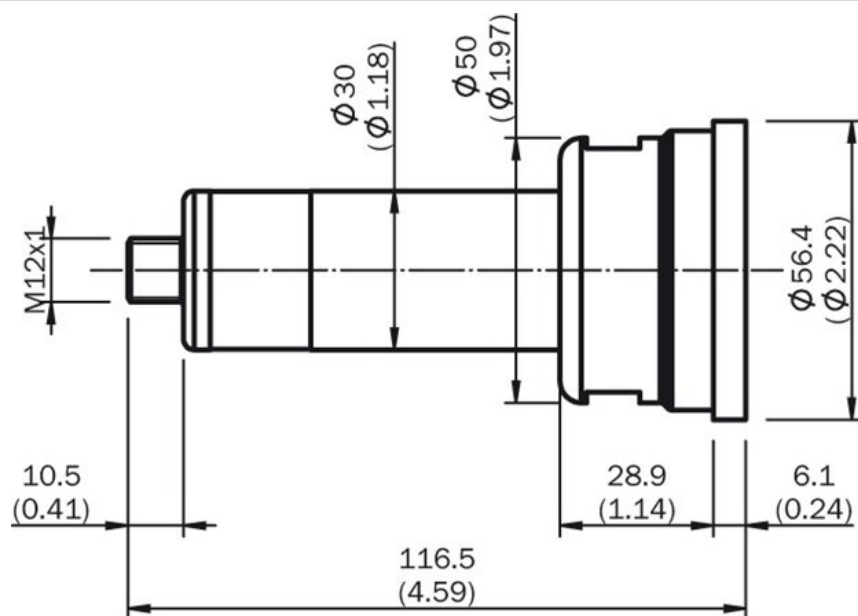
dependet on load 4 mA ... 20 mA: $RL \leq 100/$ at $9\text{ V} \leq U_B \leq 20\text{ V}$; $RL \leq 500/$ at $U_B \geq 20\text{ V}$; $0\text{ V} \dots 10\text{ V}$: $RL \geq 100\text{ k}$ at $U_B \geq 15\text{ V}$, short-circuit protected

Ambient data

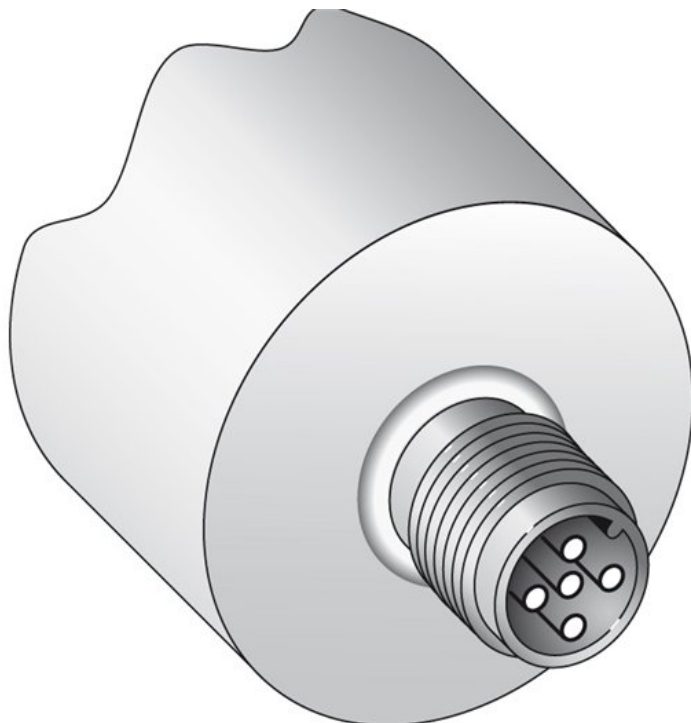
Ambient operating temperature:	-25 °C ... 60 °C ¹⁾
Ambient storage temperature:	-40 °C ... 85 °C

¹⁾ Temperature compensation at -25 °C ... 50 °C, can be switched off

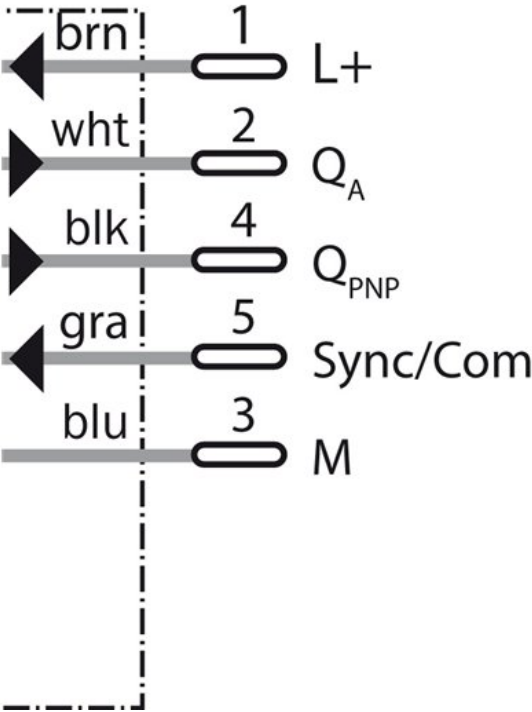
Dimensional drawing



Connection type



Connection diagram



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