SICK.COM



DATA SHEET

UP56-212148

UP56
Level sensors

SICK Sensor Intelligence



LEVEL SENSORS

UP56-212148

ORDERING INFORMATION

Type	part no.
UP56-212148	6048943

Further device versions and accessories at www.sick.com/UP56

DETAILED TECHNICAL DATA

FEATURES

Medium	Fluids
Measurement	Switch, Continuous
Measuring range in tank	85 mm ... 350 mm
Measuring range immersion tube	85 mm ... 1,500 mm
Process pressure	0 bar ... 6 bar [1]
Process temperature	–25 °C ... +85 °C
Display	Without

[1] Gauge pressure.

PERFORMANCE

Accuracy of sensor element	≤ 1 % From the full scale value
Reproducibility	± 0.15 % [1]
Resolution	0.18 mm
Response time	84 ms [2]
MTTF	> 100 years

[1] From the full scale value.

[2] Recovery time 32 ms ... 180 ms according to EMC EN 60947-5-7.

ELECTRONICS

Communication interface	-
Supply voltage	9 V DC ... 30 V DC [1]
Residual ripple	± 10 %
Power consumption	≤ 80 mA [2]
Protection class	III
Connection type	Round connector M12 x 1, 5-pin
Output signal	1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V [3] [4]
Hysteresis	5 mm [5]
Output current	200 mA
Time delay before availability	≤ 300 ms
Enclosure rating	IP67
Ultrasonic frequency	320 kHz
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 ≤ 100 / at 9 V ≤ U_B ≤20 V; RL ≤ 500/ at U_B ≥ 20 V; 0 V ... 10 V: RL ≥ 100 k / at U_B ≥ 15 V, short-circuit protected.

[5] Free adjustable in 1 mm steps via Connect+ Adapter (CPA).

MECHANICS

Wetted parts	PTFE FFKM
Process connection	GF connection D40
Housing material	PTFE, PP
Housing design	Standard

AMBIENT DATA

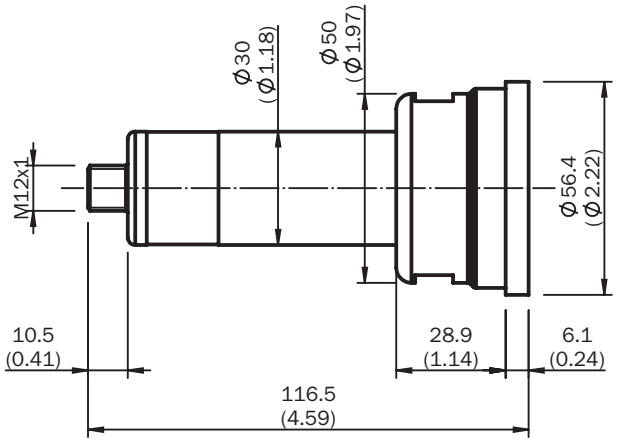
Ambient operating temperature	–25 °C ... +70 °C [1]
Ambient temperature, storage	–40 °C ... +85 °C

[1] Temperature compensation at –25 °C ... +50 °C, can be switched off.

CERTIFICATES

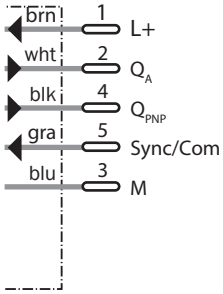
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING UP56 PURE



Dimensions in mm (inch)

CONNECTION DIAGRAM 1 X PNP + 4 MA ... 20 MA / 0 V ... 10 V



CONNECTION TYPE PLUG, M12, 5-PIN



Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6048943

SICK AG
WALDKIRCH
GERMANY
SICK.COM

SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

SICK

Sensor Intelligence