SICK.COM



DATA SHEET

UP56-2141B8

UP56
Level sensors

SICK Sensor Intelligence



LEVEL SENSORS

UP56-2141B8

ORDERING INFORMATION

Type	part no.
UP56-2141B8	6071459

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

DETAILED TECHNICAL DATA

FEATURES

Medium	Fluids, bulk solids
Measurement	Switch, Continuous
Measuring range in tank	350 mm ... 3,400 mm
Measuring range immersion tube	350 mm ... 8,000 mm
Process pressure	0 bar ... 6 bar [1]
Process temperature	–25 °C ... +70 °C
Display	Without

[1] Gauge pressure.

PERFORMANCE

Accuracy of sensor element	≤ 2 % From the full scale value
Reproducibility	± 0.15 % [1]
Resolution	0.18 mm
Response time	240 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	-

[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.

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	50 mm
Output current	200 mA
Time delay before availability	≤ 300 ms
Enclosure rating	IP67
Ultrasonic frequency	120 kHz
Ultrasonic transducer	PTFE coating, FFKM

[1] Reverse polarity protected.

[2] At 24 V DC without output load.

[3] Short-circuit protected, reversible.

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MECHANICS

Wetted parts	Stainless steel 1.4571 FFKM
Process connection	2" NPT
Housing material	Stainless steel 1.4571
Housing design	Standard

AMBIENT DATA

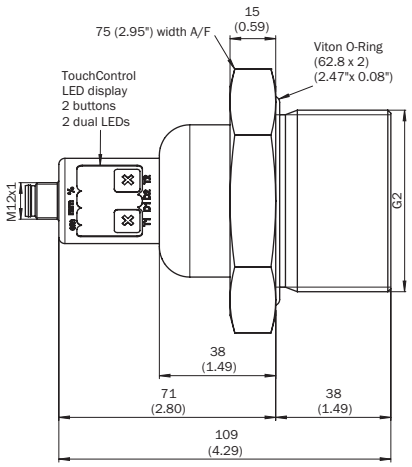
Ambient operating temperature	–25 °C ... +70 °C [1]
Ambient temperature, storage	–40 °C ... +85 °C

[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 UP56-214

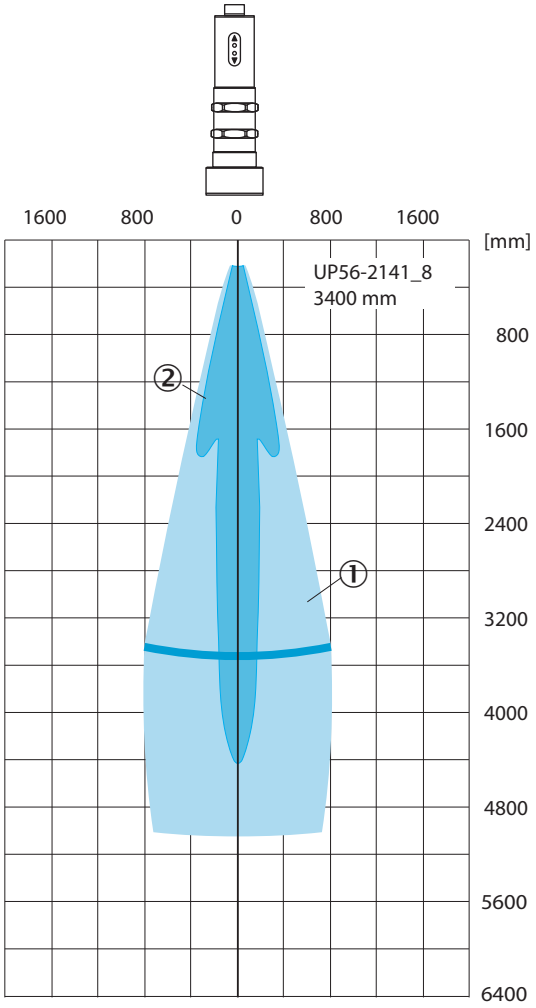


Dimensions in mm (inch)

CONNECTION TYPE PLUG, M12, 5-PIN



SCANNING RANGE IF THE FOLLOWING DESTINATIONS ARE LOCATED IN THE RADIATION CONE, RELIABLE DETECTION IS GUARANTEED.



① example object: aligned plate 500 mm x 500 mm
② pipe diameter 10 mm

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/6071459

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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

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