



UP56-213128

UP56

ULTRASONIC LEVEL SENSOR

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
UP56-213128	6048702

Other models and accessories → www.sick.com/UP56

Detailed technical data

Features

Medium	Fluids, bulk solids
Measurement	Switch, Continuous
Measuring range in tank	200 mm ... 1,300 mm
Measuring range immersion tube	200 mm ... 5,000 mm
Process pressure	0 bar ... 6 bar
Process temperature	-25 °C ... +70 °C

Performance

Accuracy of sensor element	≤ 2 % ¹⁾
Reproducibility	± 0.15 % ¹⁾
Resolution	≤ 0.18 mm
Response time	≤ 180 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

Supply voltage	9 V DC ... 30 V DC ¹⁾
Residual ripple	± 10 %
Power consumption	≤ 80 mA ²⁾
Connection type	Round connector M12 x 1, 5-pin
Output signal	³⁾ 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
Hysteresis	20 mm
Time delay before availability	≤ 300 ms

¹⁾ Reverse-polarity protected.

²⁾ At 24 V DC without output load.

³⁾ Automatic switching between voltage and current outputs dependent 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.

Enclosure rating	IP67
Ultrasonic frequency	180 kHz
Ultrasonic transducer	PTFE coating, FFKM

¹⁾ Reverse-polarity protected.

²⁾ At 24 V DC without output load.

³⁾ Automatic switching between voltage and current outputs dependent on load 4 mA ... 20 mA: $RL \leq 100 \Omega$ / at $9 V \leq U_B \leq 20 V$; $RL \leq 500 \Omega$ / at $U_B \geq 20 V$; 0 V ... 10 V: $RL \geq 100 k \Omega$ / at $U_B \geq 15 V$, short-circuit protected.

Mechanics

Process connection	G 1 A
Housing material	Stainless steel 1.4571
Weight	350 g

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.

Classifications

eCl@ss 5.0	27200506
eCl@ss 5.1.4	27200506
eCl@ss 6.0	27200506
eCl@ss 6.2	27200506
eCl@ss 7.0	27200506
eCl@ss 8.0	27200506
eCl@ss 8.1	27200506
eCl@ss 9.0	27200506
eCl@ss 10.0	27200506
eCl@ss 11.0	27200506
eCl@ss 12.0	27200506
ETIM 5.0	EC001447
ETIM 6.0	EC001447
ETIM 7.0	EC001447
ETIM 8.0	EC001447
UNSPSC 16.0901	41111950

Type code

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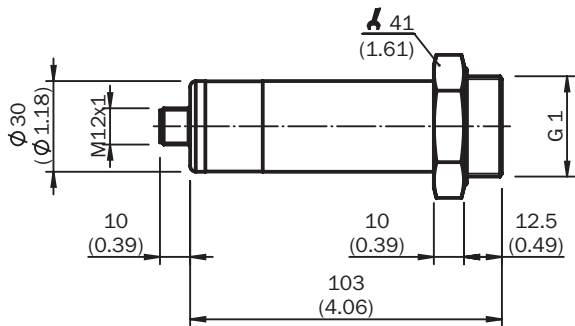
Coverage

1	30 mm ... 250 mm
2	85 mm ... 350 mm
3	200 mm ... 1,300 mm
4	350 mm ... 3,400 mm

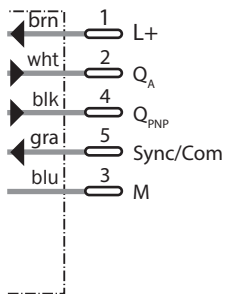
Connectivity

1	M12 round connector x 1, 5-pin
2	M12 round connector x 1, 4-pin

2	2 x PNP transistor output
4	2 x NPN transistor output
5	Push-pull: PNP/NPN; IO-Link 1.1 (process data, diagnostics, parameterization, data repository)
8	Analog, current and voltage output and 1 x PNP transistor output

UP56-211/ 212/ 213 all-metal

1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V



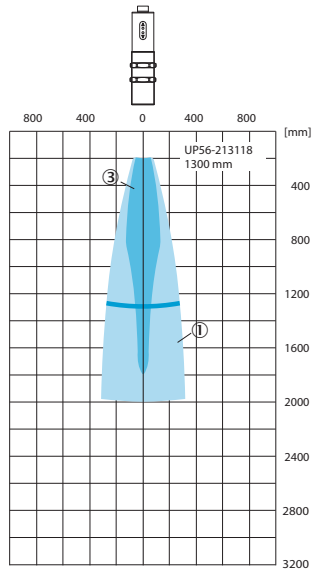
Connection type

Male connector M12, 5-pin



Scanning range

Detection range UP56-213118
















If the points named above are located in the radiation cone, reliable detection is guaranteed

- ① Example object: aligned plate 500 mm x 500 mm
- ③ Pipe diameter 27 mm

Recommended accessories

Other models and accessories → www.sick.com/UP56

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A15-020UB5XLEAX	2095617
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A15-020VB5XLEAX	2096239
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A15-050UB5XLEAX	2095618

	Brief description	Type	Part no.
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A15-050VB5XLEAX	2096240
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A15-100UB5XLEAX	2095619
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF2A15-100VB5XLEAX	2096241
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A15-020UB5XLEAX	2095772
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A15-020VB5XLEAX	2096215
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A15-050UB5XLEAX	2095773
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A15-050VB5XLEAX	2096216
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YG2A15-100UB5XLEAX	2095774
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YG2A15-100VB5XLEAX	2096217
Others			
	Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V		On request

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

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