

UP56-216156

UP56

ULTRASONIC LEVEL SENSOR

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
UP56-216156	6049617

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



Detailed technical data

Features

Medium	Fluids
Measurement	Switch, Continuous
Measuring range in tank	65 mm ... 700 mm
Measuring range immersion tube	65 mm ... 1,500 mm
Process pressure	0 bar ... 2 bar Gauge pressure for UP56 Pure mini
Process temperature	-25 °C ... +85 °C

Performance

Accuracy of sensor element	≤ 1 % ¹⁾
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

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	4 mA ... 20 mA ³⁾
Hysteresis	5 mm ⁴⁾

¹⁾ Reverse-polarity protected.

²⁾ At 24 V DC without output load.

³⁾ Short-circuit protected, reversible.

⁴⁾ Free adjustable in 1 mm steps via Connect+ Adapter (CPA).

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

¹⁾ Reverse-polarity protected.

²⁾ At 24 V DC without output load.

³⁾ Short-circuit protected, reversible.

⁴⁾ Free adjustable in 1 mm steps via Connect+ Adapter (CPA).

Mechanics

Process connection	GF connection D40
Housing material	PTFE, PP, FKM
Housing design	Compact
Weight	+ 145 g UP56 Pure Mini

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

Coverage

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

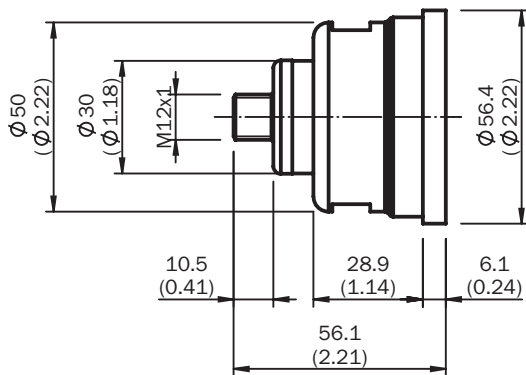
6	65 ... 700 mm
Connectivity	
1	M12 round connector x 1, 5-pin
2	M12 round connector x 1, 4-pin
Process connection / Housing	
1	G thread, stainless steel 1.4571 / plastic PBT, TPU, with display
2	G thread, stainless steel 1.4571 / stainless steel 1.4571, without display
4	GF connection D40, PTFE / plastic PP without display
5	GF connection D40, PTFE / plastic PP without display / short design (Mini)
7	G thread, PVDF / plastic PBT, TBU, with display
A	NPT thread, stainless steel 1.4571 / plastic PBT, TPU, with display
B	NPT thread, stainless steel 1.4571 / stainless steel 1.4571, without display
C	NPT thread, PVDF / plastic PBT, TPU, with display
Output function	
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)
6	Analog, current output
8	Analog, current and voltage output + 1 PNP transistor output

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Not all variants of the type code can be combined!

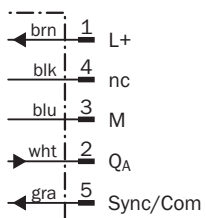
[Dimensional drawing](#) (Dimensions in mm (inch))

UP56 Pure Mini



Connection diagram

4 mA ... 20 mA



Connection type

Male connector M12, 5-pin





Recommended accessories

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

	Brief description	Type	Part no.
Cloning module			
	Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V	Connect+ adapter (CPA)	6037782
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
	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

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ULTRASONIC LEVEL SENSOR

	Brief description	Type	Part no.
	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

SICK AT A GLANCE

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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.

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