



UP56

Pressure-resistant and reliable ultrasonic sensor for non-contact level measurement

SICK
Sensor Intelligence.



Technical data overview

Measurement principle	Ultrasonic sensor
Detection principle	Non contact
Medium	Fluids / bulk solids / Fluids (depending on type)
Measurement	Switch, Continuous
Process temperature	-25 °C ... +85 °C (depending on type)
Process pressure	0 bar ... 6 bar, gauge pressure, gauge pressure for UP56 Pure mini (depending on type)
Output signal	1 x push-pull: IO-Link 1.1 (process data, diagnostics, parameterization, data repository) 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V 2 x PNP 2 x NPN 4 mA ... 20 mA (depending on type)

Product description

The UP56 ultrasonic level sensor is the ideal solution for demanding applications. The PTFE-protected transducer is pressure resistant up to 6 bar and also very resistant to difficult media. Stainless steel, PVDF and PTFE are also available as housing materials. This means the UP56 is suitable for non-contact measurement of aggressive, viscous, inhomogeneous or abrasive liquids and bulk materials. Thanks to the combination of two switching signals in one device, idling and overflow can be monitored at the same time. With an analog output and switching signal, continuous measurement with a separate overflow signal is also possible. The sensor is easy to parameterize using the integrated display, IO-Link or a Connect+ adapter.

At a glance

- Operating range: up to 3.4 m, limiting range: up to 8.0 m
- Pressure resistant up to 6 bar, temperature resistant up to 85 °C
- PTFE-coated membrane and GF D40 process connection made of PTFE
- Analog output can be switched between 4 mA ... 20 mA and 0 V ... 10 V
- Different sizes available
- Simple operation, also via Connect+
- IO-Link 1.1

Your benefits

- Non-contact and therefore wear-free measurement even in pressurized containers
- Universal application – even in difficult media such as acids or bases
- Quick and easy parameterization
- Switching output and analog output in a single device
- Adjustable ultrasonic cone for stable measurements even in tight installation spaces
- Reliable blanking of stirrers possible
- Measures accurately and reliably even in mediums with density fluctuations

Fields of application

- Level monitoring of equalizing and compensating reservoirs
- Level monitoring of bulk materials
- Fill level measurement of wet chemical processes in the electronics and solar industry
- Fill level measurement of feed tanks for the additional dosing of acids and alkalines
- Level monitoring of bulk materials

Type code

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

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!

Ordering information

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

- **Process connection:** G 1 A
- **Output signal:** 1 x push-pull: IO-Link 1.1 (process data, diagnostics, parameterization, data repository)
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure
- **Display:** ✓

Measuring range in tank	Measuring range immersion tube	Type	Part no.
200 mm ... 1,300 mm	200 mm ... 5,000 mm	UP56-213115	6073257
30 mm ... 250 mm	30 mm ... 990 mm	UP56-211115	6073255
85 mm ... 350 mm	85 mm ... 1,500 mm	UP56-212115	6073256

- **Process connection:** 1" NPT
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure
- **Display:** ✓

Measuring range in tank	Measuring range immersion tube	Type	Part no.
200 mm ... 1,300 mm	200 mm ... 5,000 mm	UP56-2131A8	6054784
30 mm ... 250 mm	30 mm ... 990 mm	UP56-2111A8	6054782
85 mm ... 350 mm	85 mm ... 1,500 mm	UP56-2121A8	6054783

- **Process connection:** 2" NPT
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** Stainless steel 1.4571, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure

Measuring range in tank	Measuring range immersion tube	Type	Part no.
30 mm ... 250 mm	30 mm ... 990 mm	UP56-2111B8	6076769
350 mm ... 3,400 mm	350 mm ... 8,000 mm	UP56-2141B8	6071459

- **Process connection:** G 1 A
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure
- **Display:** ✓

Measuring range in tank	Measuring range immersion tube	Type	Part no.
200 mm ... 1,300 mm	200 mm ... 5,000 mm	UP56-213118	6041660
30 mm ... 250 mm	30 mm ... 990 mm	UP56-211118	6041658
85 mm ... 350 mm	85 mm ... 1,500 mm	UP56-212118	6041659

- **Process connection:** G 1 A
- **Output signal:** 2 x PNP
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure
- **Display:** ✓

Measuring range in tank	Measuring range immersion tube	Type	Part no.
200 mm ... 1,300 mm	200 mm ... 5,000 mm	UP56-213112	6041663
30 mm ... 250 mm	30 mm ... 990 mm	UP56-211112	6041661
85 mm ... 350 mm	85 mm ... 1,500 mm	UP56-212112	6041662

- **Process connection:** G 1 A
- **Output signal:** 2 x NPN
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure
- **Display:** ✓

Measuring range in tank	Measuring range immersion tube	Type	Part no.
200 mm ... 1,300 mm	200 mm ... 5,000 mm	UP56-213114	6041666
30 mm ... 250 mm	30 mm ... 990 mm	UP56-211114	6041664
85 mm ... 350 mm	85 mm ... 1,500 mm	UP56-212114	6041665

- **Process connection:** G 1 A
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** Stainless steel 1.4571, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure

Measuring range in tank	Measuring range immersion tube	Type	Part no.
200 mm ... 1,300 mm	200 mm ... 5,000 mm	UP56-213128	6048702
30 mm ... 250 mm	30 mm ... 990 mm	UP56-211128	6048700
85 mm ... 350 mm	85 mm ... 1,500 mm	UP56-212128	6048701

- **Process connection:** GF connection D40
- **Output signal:** 4 mA ... 20 mA
- **Housing material:** PP, FKM

Measuring range in tank	Measuring range immersion tube	Connection type	Process temperature	Process pressure	Type	Part no.
30 mm ... 250 mm	30 mm ... 500 mm	Connecting cable, flying leads, 5-wire, shielded, PVC	-25 °C ... +85 °C	0 bar ... 2 bar, gauge pressure for UP56 Pure mini	UP56-211156S01	6086572

- **Process connection:** GF connection D40
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** PTFE, PP, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +85 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure

Measuring range in tank	Measuring range immersion tube	Type	Part no.
30 mm ... 250 mm	30 mm ... 500 mm	UP56-211148	6048942
65 mm ... 700 mm	65 mm ... 1,500 mm	UP56-216148	6049450
85 mm ... 350 mm	85 mm ... 1,300 mm	UP56-212148	6048943

- **Process connection:** GF connection D40
- **Output signal:** 4 mA ... 20 mA
- **Housing material:** PTFE, PP, FKM
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +85 °C
- **Process pressure:** 0 bar ... 2 bar, gauge pressure for UP56 Pure mini

Measuring range in tank	Measuring range immersion tube	Type	Part no.
30 mm ... 250 mm	30 mm ... 500 mm	UP56-211156	6050441
65 mm ... 700 mm	65 mm ... 1,500 mm	UP56-216156	6049617
85 mm ... 350 mm	85 mm ... 1,300 mm	UP56-212156	6049945

- **Process connection:** G 2 A PN 6
- **Output signal:** 1 x push-pull: IO-Link 1.1 (process data, diagnostics, parameterization, data repository)
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-214115	6072094

- **Process connection:** G 2 A PN 6
- **Output signal:** 1 x push-pull: IO-Link 1.1 (process data, diagnostics, parameterization, data repository)
- **Housing material:** PVDF, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-214175	6073274

- **Process connection:** 2" NPT
- **Output signal:** 2 x PNP
- **Housing material:** Stainless steel 1.4571, FKM

Measuring range in tank	Measuring range immersion tube	Connection type	Process temperature	Process pressure	Type	Part no.
350 mm ... 3,400 mm	350 mm ... 8,000 mm	Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	UP56-2141B2	6066586

- **Process connection:** 2" NPT
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** PVDF, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-2141C8	6054786

- **Process connection:** G 2 A PN 6
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-214118	6041693

- **Process connection:** G 2 A PN 6
- **Output signal:** 2 x PNP
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-214112	6041695

- **Process connection:** G 2 A PN 6
- **Output signal:** 2 x NPN
- **Housing material:** Stainless steel 1.4571, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-214114	6041694

- **Process connection:** G 2 A PN 6
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** Stainless steel 1.4571, FKM

Measuring range in tank	Measuring range immersion tube	Connection type	Process temperature	Process pressure	Type	Part no.
350 mm ... 3,400 mm	350 mm ... 8,000 mm	Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	UP56-214128	6048703

- **Process connection:** G 2 A PN 6
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Housing material:** PVDF, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-214178	6039866

- **Process connection:** G 2 A PN 6
- **Output signal:** 2 x PNP
- **Housing material:** PVDF, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-214172	6039864

- **Process connection:** G 2 A PN 6
- **Output signal:** 2 x NPN
- **Housing material:** PVDF, PBT, TPU, FKM
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm

Connection type	Process temperature	Process pressure	Display	Type	Part no.
Round connector M12 x 1, 5-pin	-25 °C ... +70 °C	0 bar ... 6 bar, gauge pressure	✓	UP56-214174	6039865

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.”

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