



UP56

Tough, non-contact, pressure-resistant

ULTRASONIC LEVEL SENSOR

SICK
Sensor Intelligence.



Technical data overview

| | |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measurement principle | Ultrasonic sensor |
| Detection principle | Non contact |
| Medium | Fluids, bulk solids |
| Measurement | Switch, Continuous |
| Process temperature | -25 °C ... +70 °C |
| Process pressure | 0 bar ... 6 bar, gauge pressure |
| 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 (depending on type) |

Product description

The product family UP56 of ultrasonic level sensors is the ideal solution for demanding applications. The teflon-protected transducer handles overpressure up to 6 bar (87 psi) and is resistant against numerous difficult fluids. Wetted parts can be chosen either as stainless steel or PVDF, thus making the UP56 the perfect solution for measurement in aggressive, viscous, or abrasive liquids, or bulk solids. By combining two output signals in one device, new cost-effective solutions can be created for measurement and integration into the system. With two switching outputs, the UP56 can measure dry running and overflow in one device. Combining analog and a switching output enables continuous level measurement with a separate overflow signal. Parameters are easy to set via an integrated display, PC or the connect+ adapter.

At a glance

- Non-contact measurement up to 3.4 m operating distance / 8.0 m scanning distance limit
- Pressure resistant up to 6 bar
- Converter protected by PVDF cover for increased resistance
- 3-in-1: Continuous measurement, switching signal, and display
- Analog output can be switched 4 mA ... 20 mA and 0 V ... 10 V
- Process connector thread G 1 and G 2
- IP67 enclosure rating
- Simple operation, also via Connect+

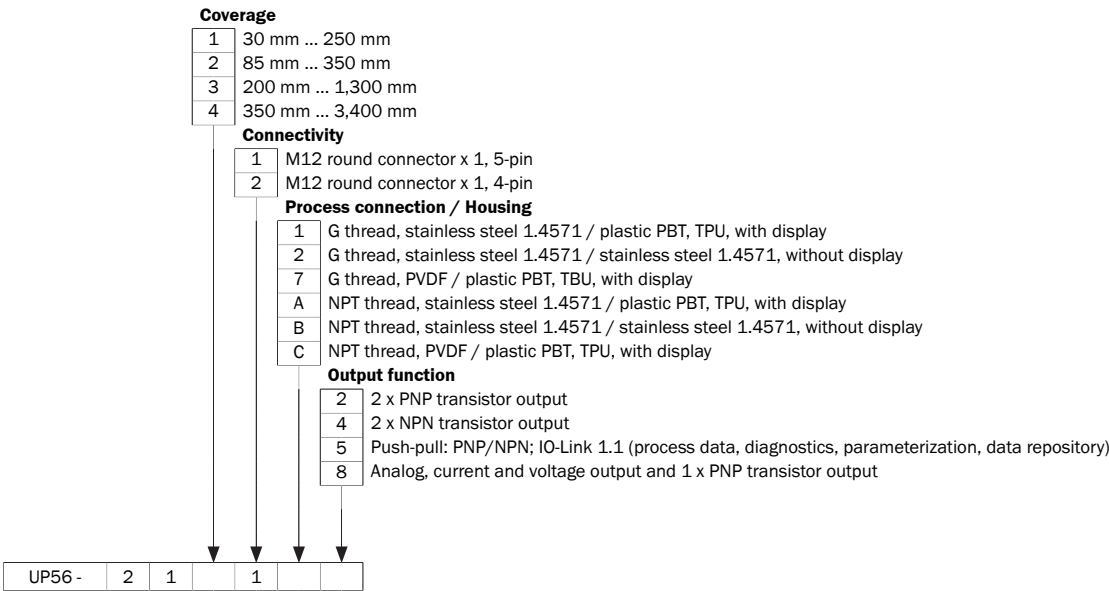
Your benefits

- Non-contact and hence wear-free measurement in pressurized containers
- Easy parameterization, saving time
- Flexible measurement on many different sized containers with only one sensor saves storage costs
- Switching output and analog output combined in a single device
- Adjustable sonic beam for stable measurements even with limited installation space
- Reliable blanking of stirrers possible
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Type code

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

Type code



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
- **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 | UP56-213115 | 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
- **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 | UP56-2131A8 | 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
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure

| Housing material | Measuring range in tank | Measuring range immersion tube | Type | Part no. |
|---------------------------------------------------|-------------------------|--------------------------------|-------------|----------|
| PVDF, PBT, TPU | 350 mm ... 3,400 mm | 350 mm ... 8,000 mm | UP56-2141C8 | 6054786 |
| Stainless steel 1.4571 | 350 mm ... 3,400 mm | 350 mm ... 8,000 mm | UP56-2141B8 | 6071459 |
| Stainless steel 1.4571, Stainless steel 1.4571 | 30 mm ... 250 mm | 30 mm ... 990 mm | UP56-2111B8 | 6076769 |

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

| Housing material | Measuring range in tank | Measuring range immersion tube | Type | Part no. |
|------------------------|-------------------------|--------------------------------|-------------|----------|
| Stainless steel 1.4571 | 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 |

| Housing material | Measuring range in tank | Measuring range immersion tube | Type | Part no. |
|----------------------------------|-------------------------|--------------------------------|-------------|----------|
| Stainless steel 1.4571, PBT, TPU | 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
- **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 | UP56-213112 | 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
- **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 | UP56-213114 | 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 2 A PN 6
- **Output signal:** 1 x push-pull: IO-Link 1.1 (process data, diagnostics, parameterization, data repository)
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure

| Housing material | Type | Part no. |
|----------------------------------|-------------|----------|
| PVDF, PBT, TPU | UP56-214175 | 6073274 |
| Stainless steel 1.4571, PBT, TPU | UP56-214115 | 6072094 |

- **Process connection:** 2" NPT
- **Output signal:** 2 x PNP
- **Housing material:** Stainless steel 1.4571
- **Measuring range in tank:** 350 mm ... 3,400 mm

| Measuring range immersion tube | Connection type | Process temperature | Process pressure | Type | Part no. |
|--------------------------------|--------------------------------|---------------------|---------------------------------|-------------|----------|
| 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:** G 2 A PN 6
- **Output signal:** 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure

| Housing material | Type | Part no. |
|----------------------------------|-------------|----------|
| PVDF, PBT, TPU | UP56-214178 | 6039866 |
| Stainless steel 1.4571 | UP56-214128 | 6048703 |
| Stainless steel 1.4571, PBT, TPU | UP56-214118 | 6041693 |

- **Process connection:** G 2 A PN 6
- **Output signal:** 2 x PNP
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure

| Housing material | Type | Part no. |
|----------------------------------|-------------|----------|
| PVDF, PBT, TPU | UP56-214172 | 6039864 |
| Stainless steel 1.4571, PBT, TPU | UP56-214112 | 6041695 |

- **Process connection:** G 2 A PN 6
- **Output signal:** 2 x NPN
- **Measuring range in tank:** 350 mm ... 3,400 mm
- **Measuring range immersion tube:** 350 mm ... 8,000 mm
- **Connection type:** round connector M12 x 1, 5-pin
- **Process temperature:** -25 °C ... +70 °C
- **Process pressure:** 0 bar ... 6 bar, gauge pressure

| Housing material | Type | Part no. |
|----------------------------------|-------------|----------|
| PVDF, PBT, TPU | UP56-214174 | 6039865 |
| Stainless steel 1.4571, PBT, TPU | UP56-214114 | 6041694 |

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:

Contacts and other locations –www.sick.com