



UP56-212128

UP56

LEVEL SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|-------------|----------|
| UP56-212128 | 6048701 |

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

Detailed technical data

Features

| | |
|---------------------------------------|----------------------------------|
| Medium | Fluids |
| Measurement | Switch, Continuous |
| Measuring range in tank | 85 mm ... 350 mm |
| Measuring range immersion tube | 85 mm ... 1,500 mm ¹⁾ |
| Process pressure | 0 bar ... 6 bar, gauge pressure |
| Process temperature | -25 °C ... +70 °C |

¹⁾ At 6 bar gauge.

Performance

| | |
|-----------------------------------|------------------------|
| Accuracy of sensor element | ≤ 2 % ¹⁾ |
| Repeatability | ± 0.15 % ¹⁾ |
| Resolution | ≤ 0.18 mm |
| Response time | ≤ 84 ms ²⁾ |

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, Switching output ¹⁾ 15 V DC ... 30 V DC, Analog output ¹⁾ |
| Residual ripple | ± 10 % |
| Power consumption | ≤ 80 mA ²⁾ |
| Electrical connection | Round connector M12 x 1, 5-pin |
| Output signal | 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V ^{3) 4)} |
| Hysteresis | 5 mm |

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.

| | |
|---------------------------------------|---------------------|
| Signal voltage HIGH | U _v -3 V |
| Time delay before availability | ≤ 300 ms |
| Enclosure rating | IP 67 |
| Ultrasonic frequency | 320 kHz |
| Ultrasonic transducer | PTFE coating, FFKM |

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 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.

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 storage temperature | -40 °C ... +85 °C |

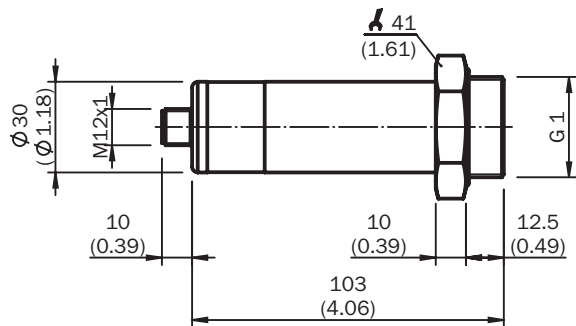
¹⁾ Temperature compensation at -25 °C ... +50 °C, can be switched off.

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 |
| ETIM 5.0 | EC002654 |
| ETIM 6.0 | EC002654 |
| UNSPSC 16.0901 | 41111950 |

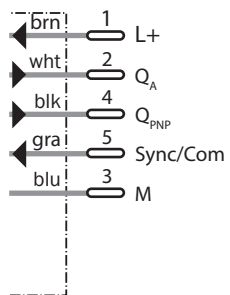
Dimensional drawing (Dimensions in mm (inch))

UP56-211/ 212/ 213 all-metal



Connection diagram

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



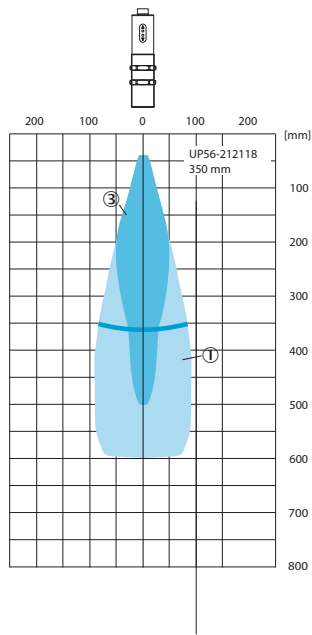
Connection type

Male connector M12, 5-pin



Scanning range

Detection range UP56-212118












- 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. |
|-----------------------------------|--|--------------------|----------|
| Flanges | | | |
| | Welded flange, process connection G 1, Stainless steel 1.4404 | BEF-FL-316G10-UP56 | 4064295 |
| | Welded flange/welded connector, process connection G 2, Stainless steel 1.4404 | BEF-FL-316G20-UP56 | 4063263 |
| Plug connectors and cables | | | |
| | Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m | DOL-1205-G02M | 6008899 |
| | Head A: female connector, M12, 5-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m | DOL-1205-G02MC | 6025906 |
| | Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 5 m | DOL-1205-G05M | 6009868 |
| | Head A: female connector, M12, 5-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m | DOL-1205-G05MC | 6025907 |

| | Brief description | Type | Part no. |
|---|---|------------------------|----------|
|  | Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 10 m | DOL-1205-G10M | 6010544 |
|  | Head A: female connector, M12, 5-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m | DOL-1205-G10MC | 6025908 |
|  | Head A: female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 2 m | DOL-1205-W02M | 6008900 |
|  | Head A: female connector, M12, 5-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m | DOL-1205-W02MC | 6025909 |
|  | Head A: female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 5 m | DOL-1205-W05M | 6009869 |
|  | Head A: female connector, M12, 5-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m | DOL-1205-W05MC | 6025910 |
|  | Head A: female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 10 m | DOL-1205-W10M | 6010542 |
|  | Head A: female connector, M12, 5-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m | DOL-1205-W10MC | 6025911 |
| Programming and configuration tools | | | |
|  | Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V | Connect+ adapter (CPA) | 6037782 |

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.

For us, that is “Sensor Intelligence.”

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