



# UP56-214118

UP56

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type        | Part no. |
|-------------|----------|
| UP56-214118 | 6041693  |

Other models and accessories → [www.sick.com/UP56](http://www.sick.com/UP56)

### Detailed technical data

#### Features

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| <b>Medium</b>                         | Fluids                            |
| <b>Measurement</b>                    | Switch, Continuous                |
| <b>Measuring range in tank</b>        | 350 mm ... 3,400 mm               |
| <b>Measuring range immersion tube</b> | 350 mm ... 8,000 mm <sup>1)</sup> |
| <b>Process pressure</b>               | 0 bar ... 6 bar, gauge pressure   |
| <b>Process temperature</b>            | -25 °C ... +70 °C                 |

<sup>1)</sup> At 6 bar gauge.

#### Performance

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Accuracy of sensor element</b> | ≤ 2 % <sup>1)</sup>    |
| <b>Repeatability</b>              | ± 0.15 % <sup>1)</sup> |
| <b>Resolution</b>                 | ≤ 0.18 mm              |
| <b>Response time</b>              | ≤ 240 ms <sup>2)</sup> |

<sup>1)</sup> From the full scale value.

<sup>2)</sup> Recovery time 32 ms ... 180 ms according to EMC EN 60947-5-7.

#### Electronics

|                              |  |
|------------------------------|--|
| <b>Supply voltage</b>        | 9 V DC ... 30 V DC, Switching output <sup>1)</sup><br>15 V DC ... 30 V DC, Analog output <sup>1)</sup> |
| <b>Residual ripple</b>       | ± 10 %   |
| <b>Power consumption</b>     | ≤ 80 mA <sup>2)</sup>  |
| <b>Electrical connection</b> | Round connector M12 x 1, 5-pin   |
| <b>Output signal</b>         | 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V <sup>3) 4)</sup>   |
| <b>Hysteresis</b>            | 50 mm  |

<sup>1)</sup> Reverse-polarity protected.

<sup>2)</sup> At 24 V DC without output load.

<sup>3)</sup> Short-circuit protected, reversible.

<sup>4)</sup> Automatic switching between voltage and current outputs dependet on load 4 mA ... 20 mA: RL ≤ 100 / at 9 V ≤ U<sub>B</sub> ≤ 20 V; RL ≤ 500/ at U<sub>B</sub> ≥ 20 V; 0 V ... 10 V: RL ≥ 100 k / at U<sub>B</sub> ≥ 15 V, short-circuit protected.

|                                       |                    |
|---------------------------------------|--------------------|
| <b>Signal voltage HIGH</b>            | Uv -3 V            |
| <b>Time delay before availability</b> | ≤ 300 ms           |
| <b>Enclosure rating</b>               | IP 67              |
| <b>Ultrasonic frequency</b>           | 120 kHz            |
| <b>Ultrasonic transducer</b>          | 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 dependet on load 4 mA ... 20 mA: RL ≤ 100 / at 9 V ≤ UB ≤ 20 V; RL ≤ 500/ at UB ≥ 20 V; 0 V ... 10 V: RL ≥ 100 k / at UB ≥ 15 V, short-circuit protected.

### Mechanics

|                           |                                  |
|---------------------------|----------------------------------|
| <b>Process connection</b> | G 2 A PN 6                       |
| <b>Housing material</b>   | Stainless steel 1.4571, PBT, TPU |
| <b>Weight</b>             | 1,200 g                          |

### Ambient data

|                                      |                                 |
|--------------------------------------|---------------------------------|
| <b>Ambient operating temperature</b> | -25 °C ... +70 °C <sup>1)</sup> |
| <b>Ambient storage temperature</b>   | -40 °C ... +85 °C               |

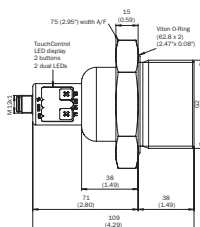
1) Temperature compensation at -25 °C ... +50 °C, can be switched off.

### Classifications

|                       |          |
|-----------------------|----------|
| <b>ECl@ss 5.0</b>     | 27200506 |
| <b>ECl@ss 5.1.4</b>   | 27200506 |
| <b>ECl@ss 6.0</b>     | 27200506 |
| <b>ECl@ss 6.2</b>     | 27200506 |
| <b>ECl@ss 7.0</b>     | 27200506 |
| <b>ECl@ss 8.0</b>     | 27200506 |
| <b>ECl@ss 8.1</b>     | 27200506 |
| <b>ECl@ss 9.0</b>     | 27200506 |
| <b>ETIM 5.0</b>       | EC002654 |
| <b>ETIM 6.0</b>       | EC002654 |
| <b>UNSPSC 16.0901</b> | 41111950 |

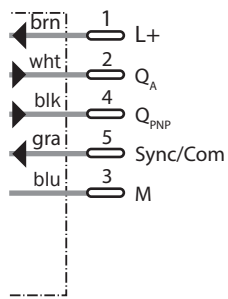
### Dimensional drawing (Dimensions in mm (inch))

UP56-214



### Connection diagram

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



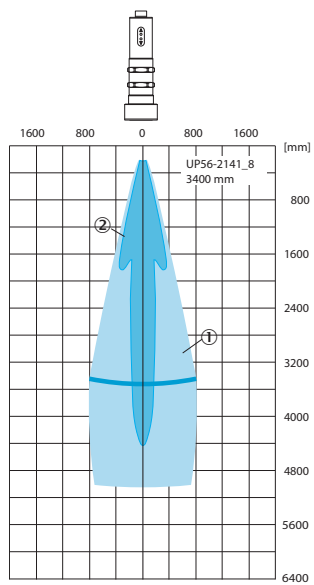
### Connection type

Male connector M12, 5-pin



### Scanning range

Detection range UP56-2141\_8
















① Example object: aligned plate 500 mm x 500 mm

② Pipe diameter 10 mm

Recommended accessories

Other models and accessories → [www.sick.com/UP56](http://www.sick.com/UP56)

|   | Brief description   | Type                   | Part no. |
|---|---|------------------------|----------|
| <b>Flanges</b>  |   |                        |          |
|    | 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  |
| <b>Plug connectors and cables</b>   |   |                        |          |
|    | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 2 m                                | DOL-1205-G02M          | 6008899  |
|    | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 2 m  | DOL-1205-G02MC         | 6025906  |
|    | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 5 m                                | DOL-1205-G05M          | 6009868  |
|    | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 5 m  | DOL-1205-G05MC         | 6025907  |
|   | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 10 m                               | DOL-1205-G10M          | 6010544  |
|  | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 10 m | DOL-1205-G10MC         | 6025908  |
|  | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 2 m                                  | DOL-1205-W02M          | 6008900  |
|  | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 2 m    | DOL-1205-W02MC         | 6025909  |
|  | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 5 m                                  | DOL-1205-W05M          | 6009869  |
|  | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 5 m    | DOL-1205-W05MC         | 6025910  |
|  | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 10 m                                 | DOL-1205-W10M          | 6010542  |
|  | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 10 m   | DOL-1205-W10MC         | 6025911  |
| <b>Programming and configuration tools</b>  |   |                        |          |
|  | 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

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](http://www.sick.com)