



UP56-211148

UP56

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
UP56-211148	6048942

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>	30 mm ... 250 mm
<b>Measuring range immersion tube</b>	30 mm ... 500 mm
<b>Process pressure</b>	0 bar ... 6 bar <sup>1)</sup>
<b>Process temperature</b>	-25 °C ... +85 °C
<b>Display</b>	Without

<sup>1)</sup> Gauge pressure.

#### Performance

<b>Accuracy of sensor element</b>	≤ 1 % From the full scale value
<b>Reproducibility</b>	± 0.15 % <sup>1)</sup>
<b>Resolution</b>	0.025 mm
<b>Response time</b>	68 ms <sup>2)</sup>
<b>MTTF</b>	> 100 years

<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>Communication interface</b>	-
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<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.

<sup>5)</sup> Free adjustable in 1 mm steps via Connect+ Adapter (CPA).

<b>Supply voltage</b>	9 V DC ... 30 V DC <sup>1)</sup>
<b>Residual ripple</b>	± 10 %
<b>Power consumption</b>	≤ 80 mA <sup>2)</sup>
<b>Protection class</b>	III
<b>Connection type</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>	3 mm <sup>5)</sup>
<b>Output current</b>	200 mA
<b>Time delay before availability</b>	≤ 300 ms
<b>Enclosure rating</b>	IP67
<b>Ultrasonic frequency</b>	320 kHz
<b>Ultrasonic transducer</b>	PTFE coating, FFKM

<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 dependent 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.

<sup>5)</sup> Free adjustable in 1 mm steps via Connect+ Adapter (CPA).

## Mechanics

<b>Wetted parts</b>	PTFE FFKM
<b>Process connection</b>	GF connection D40
<b>Housing material</b>	PTFE, PP
<b>Housing design</b>	Standard
<b>Weight</b>	+ 210 g

## Ambient data

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

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

## Classifications

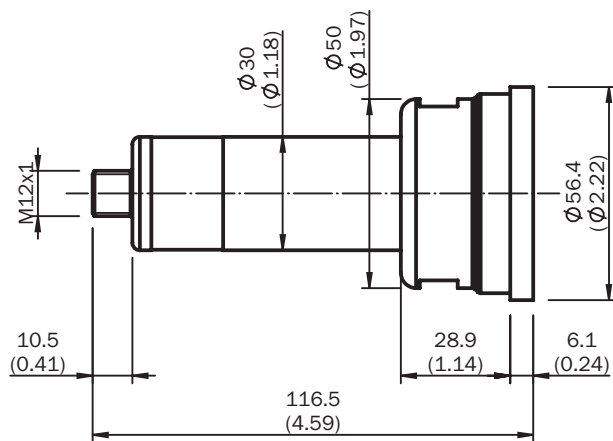
<b>ECLASS 5.0</b>	27200506
<b>ECLASS 5.1.4</b>	27200506
<b>ECLASS 6.0</b>	27200506
<b>ECLASS 6.2</b>	27200506
<b>ECLASS 7.0</b>	27200506
<b>ECLASS 8.0</b>	27200506
<b>ECLASS 8.1</b>	27200506
<b>ECLASS 9.0</b>	27200506
<b>ECLASS 10.0</b>	27200506
<b>ECLASS 11.0</b>	27200506
<b>ECLASS 12.0</b>	27200506

<b>ETIM 5.0</b>	EC001447
<b>ETIM 6.0</b>	EC001447
<b>ETIM 7.0</b>	EC001447
<b>ETIM 8.0</b>	EC001447
<b>UNSPSC 16.0901</b>	41111950

### Certificates

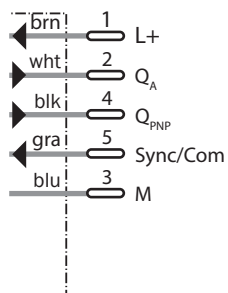
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>cULus certificate</b>	✓
<b>Information according to Art. 3 of Data Act (Regulation EU 2023/2854)</b>	✓

### Dimensional drawing UP56 Pure



Dimensions in mm (inch)

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



## Connection type Plug, M12, 5-pin



## Recommended accessories

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

	Brief description	Type	part no.
programming devices			
A blue and white USB-like device with a 3-digit LED display and two cables attached.	<ul style="list-style-type: none"><li>• <b>Product segment:</b> Integration modules and adapters</li><li>• <b>Product:</b> Cloning modules</li><li>• <b>Description:</b> Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V</li></ul>	Connect+ adapter (CPA)	6037782

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 5-wire, PUR, halogen-free</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A15-020UB5XLEAX	2095617
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 5-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A15-020VB5XLEAX	2096239
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 5-wire, PUR, halogen-free</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A15-050UB5XLEAX	2095618
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 5-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A15-050VB5XLEAX	2096240
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 10 m, 5-wire, PUR, halogen-free</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A15-100UB5XLEAX	2095619
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 10 m, 5-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A15-100VB5XLEAX	2096241
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 5-wire, PUR, halogen-free</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-020UB5XLEAX	2095772
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 5-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A15-020VB5XLEAX	2096215
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 5-wire, PUR, halogen-free</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-050UB5XLEAX	2095773
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 5-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A15-050VB5XLEAX	2096216
	<ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 10 m, 5-wire, PUR, halogen-free</li> </ul>	YG2A15-100UB5XLEAX	2095774

	Brief description	Type	part no.
	<ul style="list-style-type: none"> <li>• <b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 10 m, 5-wire, PVC</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A15-100VB5XLEAX	2096217
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 0.6 m, 5-wire, PUR, halogen-free</li> <li>• <b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-C60UB5XLEAX	2145540
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 3 m, 5-wire, PUR, halogen-free</li> <li>• <b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-030UB5XLEAX	2145543
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 1 m, 5-wire, PUR, halogen-free</li> <li>• <b>Application:</b> Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-010UB5XLEAX	2145541
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 0.6 m, 5-wire, PVC</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A15-C60VB5XLEAX	2145573
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 1 m, 5-wire, PVC</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A15-010VB5XLEAX	2145574
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, angled, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 3 m, 5-wire, PVC</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YG2A15-030VB5XLEAX	2145575
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 0.6 m, 5-wire, PVC</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A15-C60VB5XLEAX	2145570
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 3 m, 5-wire, PVC</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A15-030VB5XLEAX	2145572

## 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)