



# UP56-2111B8

UP56

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
UP56-2111B8	6076769

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



### Detailed technical data

#### Features

<b>Medium</b>	Fluids, bulk solids
<b>Measurement</b>	Switch, Continuous
<b>Measuring range in tank</b>	30 mm ... 250 mm
<b>Measuring range immersion tube</b>	30 mm ... 990 mm
<b>Process pressure</b>	0 bar ... 6 bar <sup>1)</sup>
<b>Process temperature</b>	-25 °C ... +70 °C
<b>Display</b>	Without

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

#### Performance

<b>Accuracy of sensor element</b>	≤ 2 % <sup>1)</sup>
<b>Reproducibility</b>	± 0.15 % <sup>1)</sup>
<b>Resolution</b>	0.18 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>	-
<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>

<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 ≤ UB ≤ 20 V; RL ≤ 500 / at UB ≥ 20 V; 0 V ... 10 V: RL ≥ 100 k / at UB ≥ 15 V, short-circuit protected.

<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
<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:  $RL \leq 100 / \text{at } 9 \text{ V} \leq U_B \leq 20 \text{ V}; RL \leq 500 / \text{at } U_B \geq 20 \text{ V}; 0 \text{ V} \dots 10 \text{ V}: RL \geq 100 \text{ k} / \text{at } U_B \geq 15 \text{ V}$ , short-circuit protected.

## Mechanics

<b>Wetted parts</b>	Stainless steel 1.4571 FFKM
<b>Process connection</b>	2" NPT
<b>Housing material</b>	Stainless steel 1.4571
<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.

## Certificates

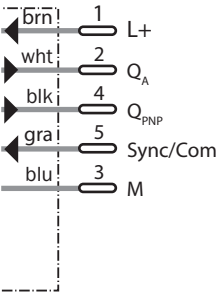
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>cULus certificate</b>	✓
<b>Information according to Art. 3 of Data Act (Regulation EU 2023/2854)</b>	✓

## 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

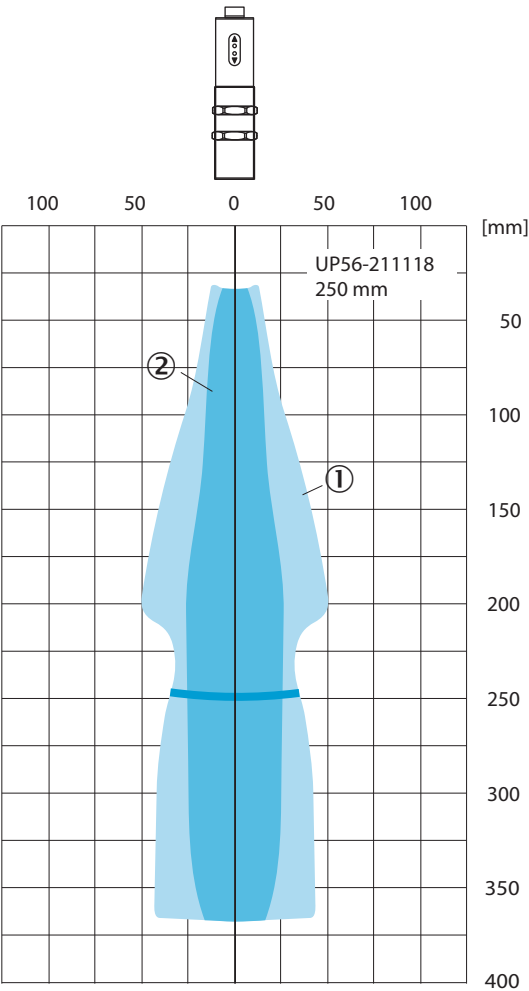
Connection diagram 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V



Connection type Plug, M12, 5-pin



Scanning range Detection range UP56-211118




If the points named above are located in the radiation cone, reliable detection is guaranteed

- 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.
programming devices			
	<ul style="list-style-type: none"><li>• <b>Product segment:</b> Integration modules and adapters</li><li>• <b>Product family:</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>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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A15-020UB5XLEAX	2095617
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A15-020VB5XLEAX	2096239
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A15-050UB5XLEAX	2095618
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A15-050VB5XLEAX	2096240
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A15-100UB5XLEAX	2095619
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A15-100VB5XLEAX	2096241
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-020UB5XLEAX	2095772
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YG2A15-020VB5XLEAX	2096215
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-050UB5XLEAX	2095773
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YG2A15-050VB5XLEAX	2096216
	<ul style="list-style-type: none"> <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> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> </ul>	YG2A15-100UB5XLEAX	2095774

	Brief description	Type	part no.
	<ul style="list-style-type: none"> <li><b>Application:</b> Untaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Untaminated zones</li> </ul>	YG2A15-100VB5XLEAX	2096217
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Untaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-C60UB5XLEAX	2145540
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Untaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-030UB5XLEAX	2145543
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Untaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A15-010UB5XLEAX	2145541
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Untaminated zones</li> </ul>	YG2A15-C60VB5XLEAX	2145573
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Untaminated zones</li> </ul>	YG2A15-010VB5XLEAX	2145574
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Untaminated zones</li> </ul>	YG2A15-030VB5XLEAX	2145575
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Untaminated zones</li> </ul>	YF2A15-C60VB5XLEAX	2145570
	<ul style="list-style-type: none"> <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>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Untaminated zones</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)