



# UP56-212118

UP56

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
UP56-212118	6041659

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>	85 mm ... 350 mm
<b>Measuring range immersion tube</b>	85 mm ... 1,500 mm
<b>Process pressure</b>	0 bar ... 6 bar
<b>Process temperature</b>	-25 °C ... +70 °C

#### 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>	≤ 84 ms <sup>2)</sup>
<b>MTTFd</b>	196 years (EN ISO 13849-1)

<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 <sup>1)</sup>
<b>Residual ripple</b>	± 10 %
<b>Power consumption</b>	≤ 80 mA <sup>2)</sup>
<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
<b>Hysteresis</b>	5 mm
<b>Signal voltage HIGH</b>	U <sub>v</sub> -3 V
<b>Time delay before availability</b>	≤ 300 ms
<b>Enclosure rating</b>	IP67

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

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

<b>Ultrasonic frequency</b>	320 kHz
<b>Ultrasonic transducer</b>	PTFE coating, FFKM

1) Reverse-polarity protected.

2) At 24 V DC without output load.

Mechanics

<b>Process connection</b>	G 1 A
<b>Housing material</b>	Stainless steel 1.4571, PBT, TPU
<b>Weight</b>	+ 210 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>ECl@ss 10.0</b>	27200506
<b>ECl@ss 11.0</b>	27200506
<b>ETIM 5.0</b>	EC002654
<b>ETIM 6.0</b>	EC002654
<b>ETIM 7.0</b>	EC002654
<b>UNSPSC 16.0901</b>	41111950

Type code

Type code

**Coverage**

1	30 mm ... 250 mm
2	85 mm ... 350 mm
3	200 mm ... 1,300 mm
4	350 mm ... 3,400 mm

**Connectivity**

1	M12 round connector x 1, 5-pin
2	M12 round connector x 1, 4-pin

**Process connection / Housing**

1	G thread, stainless steel 1.4571 / plastic PBT, TPU, with display
2	G thread, stainless steel 1.4571 / stainless steel 1.4571, without display
7	G thread, PVDF / plastic PBT, TBU, with display
A	NPT thread, stainless steel 1.4571 / plastic PBT, TPU, with display

- B NPT thread, stainless steel 1.4571 / stainless steel 1.4571, without display
- C NPT thread, PVDF / plastic PBT, TPU, with display

**Output function**

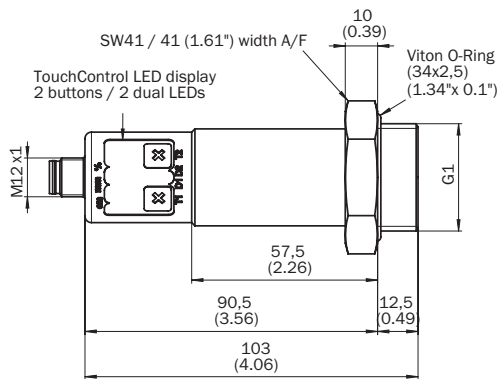
- 2 2 x PNP transistor output
- 4 2 x NPN transistor output
- 8 Analog, current and voltage output and 1 x PNP transistor output

UP56 - 2 1 1

Not all variants of the type code can be combined!

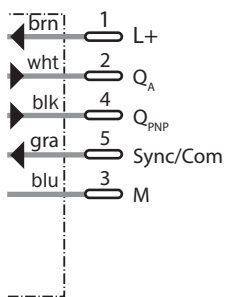
[Dimensional drawing](#) (Dimensions in mm (inch))

UP56-211/ 212/ 213



### Connection diagram

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



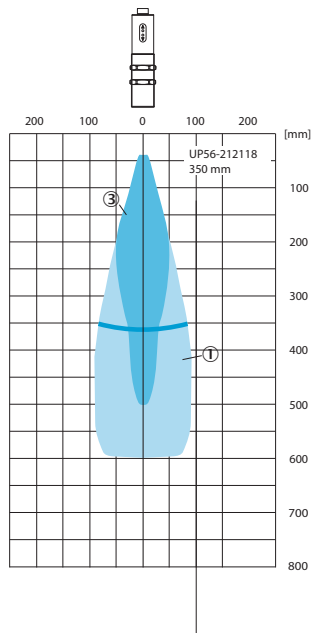
### Connection type

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](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, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A15-020UB5XLEAX	2095617
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A15-020VB5XLEAX	2096239
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A15-050UB5XLEAX	2095618
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A15-050VB5XLEAX	2096240

	Brief description	Type	Part no.
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A15-100UB5XLEAX	2095619
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF2A15-100VB5XLEAX	2096241
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A15-020UB5XLEAX	2095772
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A15-020VB5XLEAX	2096215
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A15-050UB5XLEAX	2095773
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A15-050VB5XLEAX	2096216
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YG2A15-100UB5XLEAX	2095774
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YG2A15-100VB5XLEAX	2096217
<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)