



UP56-2111B8

UP56

LEVEL SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | part no. |
|-------------|----------|
| UP56-2111B8 | 6076769 |

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

Detailed technical data

Features

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

¹⁾ Gauge pressure.

Performance

| | |
|-----------------------------------|------------------------|
| Accuracy of sensor element | ≤ 2 % ¹⁾ |
| Reproducibility | ± 0.15 % ¹⁾ |
| Resolution | 0.18 mm |
| Response time | 68 ms ²⁾ |
| MTTF | > 100 years |

¹⁾ From the full scale value.

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

Electronics

| | |
|--------------------------------|--|
| Communication interface | - |
| Supply voltage | 9 V DC ... 30 V DC ¹⁾ |
| Residual ripple | ± 10 % |
| Power consumption | ≤ 80 mA ²⁾ |
| Protection class | III |
| Connection type | Round connector M12 x 1, 5-pin |
| Output signal | 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V ^{3) 4)} |

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.

| | |
|---------------------------------------|--------------------|
| Hysteresis | 3 mm |
| Output current | 200 mA |
| Time delay before availability | ≤ 300 ms |
| Enclosure rating | IP67 |
| 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

| | |
|---------------------------|--------------------------------|
| Wetted parts | Stainless steel 1.4571 FFKM |
| Process connection | 2" NPT |
| Housing material | Stainless steel 1.4571 |
| Housing design | Standard |
| Weight | + 210 g |

Ambient data

| | |
|--------------------------------------|---------------------------------|
| Ambient operating temperature | -25 °C ... +70 °C ¹⁾ |
| Ambient temperature, storage | -40 °C ... +85 °C |

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

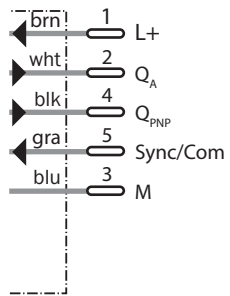
Classifications

| | |
|-----------------------|----------|
| ECLASS 5.0 | 27200506 |
| ECLASS 5.1.4 | 27200506 |
| ECLASS 6.0 | 27200506 |
| ECLASS 6.2 | 27200506 |
| ECLASS 7.0 | 27200506 |
| ECLASS 8.0 | 27200506 |
| ECLASS 8.1 | 27200506 |
| ECLASS 9.0 | 27200506 |
| ECLASS 10.0 | 27200506 |
| ECLASS 11.0 | 27200506 |
| ECLASS 12.0 | 27200506 |
| ETIM 5.0 | EC001447 |
| ETIM 6.0 | EC001447 |
| ETIM 7.0 | EC001447 |
| ETIM 8.0 | EC001447 |
| UNSPSC 16.0901 | 41111950 |

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LEVEL SENSORS

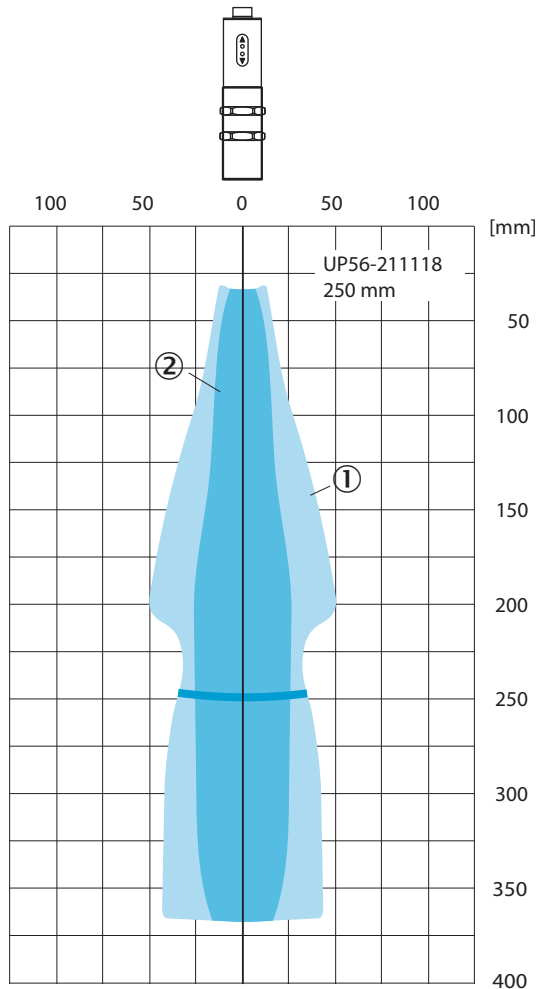
Connection diagram 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V



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

| | Brief description | Type | part no. |
|---|---|------------------------|----------|
| programming devices | | | |
|  | <ul style="list-style-type: none"> Product segment: Integration modules and adapters Product family: Cloning modules Description: Tool for visualization, configuration and cloning, 3-digit LED display, supply voltage: DV 9 V ... 30 V | Connect+ adapter (CPA) | 6037782 |

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

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

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