



UP56-212148

UP56

LEVEL SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | part no. |
|-------------|----------|
| UP56-212148 | 6048943 |

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



Detailed technical data

Features

| | |
|---------------------------------------|-------------------------------|
| Medium | Fluids |
| Measurement | Switch, Continuous |
| Measuring range in tank | 85 mm ... 350 mm |
| Measuring range immersion tube | 85 mm ... 1,500 mm |
| Process pressure | 0 bar ... 6 bar ¹⁾ |
| Process temperature | -25 °C ... +85 °C |
| Display | Without |

¹⁾ Gauge pressure.

Performance

| | |
|-----------------------------------|---------------------------------|
| Accuracy of sensor element | ≤ 1 % From the full scale value |
| Reproducibility | ± 0.15 % ¹⁾ |
| Resolution | 0.18 mm |
| Response time | 84 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 | - |
|--------------------------------|---|

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.

⁵⁾ Free adjustable in 1 mm steps via Connect+ Adapter (CPA).

| | |
|---------------------------------------|--|
| 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)} |
| Hysteresis | 5 mm ⁵⁾ |
| 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.

⁵⁾ Free adjustable in 1 mm steps via Connect+ Adapter (CPA).

Mechanics

| | |
|---------------------------|-------------------|
| Wetted parts | PTFE FFKM |
| Process connection | GF connection D40 |
| Housing material | PTFE, PP |
| 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

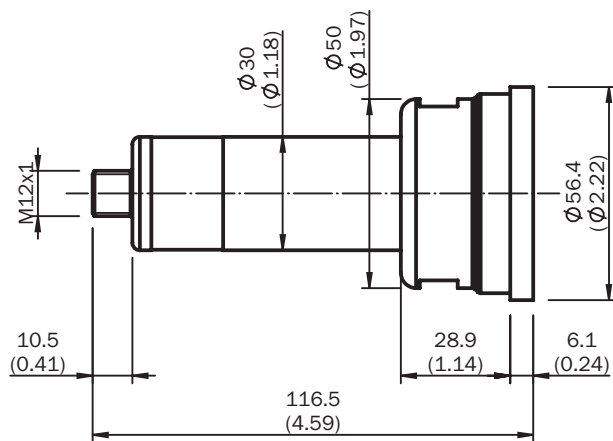
| | |
|---------------------|----------|
| ECLASS 5.0 | 27200506 |
| ECLASS 5.1.4 | 27200506 |
| ECLASS 6.0 | 27200506 |
| ECLASS 6.2 | 27200506 |
| ECLASS 7.0 | 27200506 |
| ECLASS 8.0 | 27200506 |
| ECLASS 8.1 | 27200506 |
| ECLASS 9.0 | 27200506 |
| ECLASS 10.0 | 27200506 |
| ECLASS 11.0 | 27200506 |
| ECLASS 12.0 | 27200506 |

| | |
|-----------------------|----------|
| ETIM 5.0 | EC001447 |
| ETIM 6.0 | EC001447 |
| ETIM 7.0 | EC001447 |
| ETIM 8.0 | EC001447 |
| UNSPSC 16.0901 | 41111950 |

Certificates

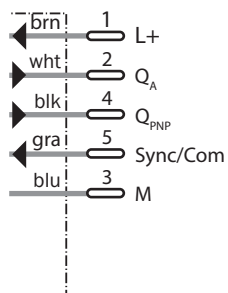
| | |
|--|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| China RoHS | ✓ |
| cULus certificate | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

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

| | Brief description | Type | part no. |
|---|--|------------------------|----------|
| programming devices | | | |
|  | <ul style="list-style-type: none"> • Product segment: Integration modules and adapters • Product: 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"> Description: Sensor/actuator cable, unshielded 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 Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YF2A15-020UB5XLEAX | 2095617 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Uncontaminated zones, Zones with chemicals | YF2A15-020VB5XLEAX | 2096239 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YF2A15-050UB5XLEAX | 2095618 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Uncontaminated zones, Zones with chemicals | YF2A15-050VB5XLEAX | 2096240 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YF2A15-100UB5XLEAX | 2095619 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Uncontaminated zones, Zones with chemicals | YF2A15-100VB5XLEAX | 2096241 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YG2A15-020UB5XLEAX | 2095772 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Uncontaminated zones, Zones with chemicals | YG2A15-020VB5XLEAX | 2096215 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YG2A15-050UB5XLEAX | 2095773 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 Application: Uncontaminated zones, Zones with chemicals | YG2A15-050VB5XLEAX | 2096216 |
|  | <ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded 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 | 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 • Description: Sensor/actuator cable, unshielded • 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 • Application: Uncontaminated zones, Zones with chemicals | YG2A15-100VB5XLEAX | 2096217 |
|  | <ul style="list-style-type: none"> • Description: Sensor/actuator cable, unshielded • 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 • Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YG2A15-C60UB5XLEAX | 2145540 |
|  | <ul style="list-style-type: none"> • Description: Sensor/actuator cable, unshielded • 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 • Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YG2A15-030UB5XLEAX | 2145543 |
|  | <ul style="list-style-type: none"> • Description: Sensor/actuator cable, unshielded • 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 • Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YG2A15-010UB5XLEAX | 2145541 |
|  | <ul style="list-style-type: none"> • Description: Sensor/actuator cable, unshielded • 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 • Application: Uncontaminated zones, Zones with chemicals | YG2A15-C60VB5XLEAX | 2145573 |
|  | <ul style="list-style-type: none"> • Description: Sensor/actuator cable, unshielded • 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 • Application: Uncontaminated zones, Zones with chemicals | YG2A15-010VB5XLEAX | 2145574 |
|  | <ul style="list-style-type: none"> • Description: Sensor/actuator cable, unshielded • 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 • Application: Uncontaminated zones, Zones with chemicals | YG2A15-030VB5XLEAX | 2145575 |
|  | <ul style="list-style-type: none"> • Description: Sensor/actuator cable, unshielded • 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 • Application: Uncontaminated zones, Zones with chemicals | YF2A15-C60VB5XLEAX | 2145570 |
|  | <ul style="list-style-type: none"> • Description: Sensor/actuator cable, unshielded • 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 • 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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