



UP56-216148

UP56

LEVEL SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
UP56-216148	6049450

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



Detailed technical data

Features

Medium	Fluids
Measurement	Switch, Continuous
Measuring range in tank	65 mm ... 700 mm
Measuring range immersion tube	65 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	200 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

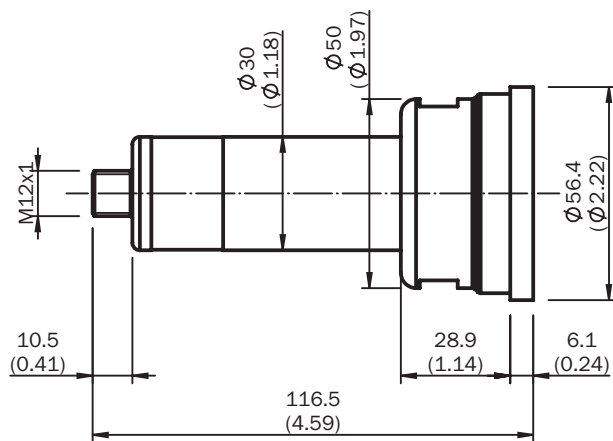
ECLASS 5.0	27200506
ECLASS 5.1.4	27200506
ECLASS 6.0	27200506
ECLASS 6.2	27200506
ECLASS 7.0	27200506
ECLASS 8.0	27200506
ECLASS 8.1	27200506
ECLASS 9.0	27200506
ECLASS 10.0	27200506
ECLASS 11.0	27200506
ECLASS 12.0	27200506

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

Certificates

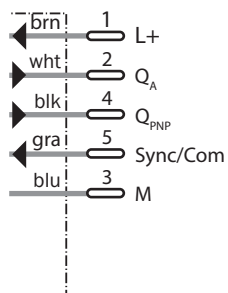
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com