

Ultrasonic Level Sensor

- Flexible installation via upper or lower thread connection (G1", G1½", G2¼")
- HART®-enabled 4–20 mA output for remote configuration and integration
- IP68-rated housing with all-plastic PP and PVDF design for corrosion resistance
- Ranges from 0.15 to 10 meters
- Advanced echo signal filtering to eliminate false reflections from challenging surfaces



About

The P102 is a compact ultrasonic level meter designed for continuous, non-contact level measurement in outdoor and industrial environments. With measurement ranges from 0.15 m to 10 m, it is ideal for monitoring liquids, slurries, pastes, and even some bulk solids in open tanks or troughs. The unit offers flexible installation options via upper or lower threaded connections and communicates using a 4–20 mA signal with HART® protocol support. Its rugged IP68-rated housing and advanced signal processing enable reliable performance even in challenging media conditions like foam or uneven surfaces.

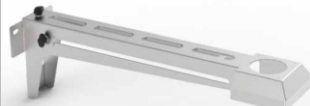
Applications

- ✓ Food & Beverage
- ✓ Chemical Refining & Manufacturing
- ✓ Pharmaceuticals
- ✓ Water Treatment & Wastewater
- ✓ Agriculture
- ✓ Clean water
- ✓ Mining Pastes & Slurries
- ✓ Environmental Monitoring

Build Your Part Number

Series P102

Example: P102SM3CC20A1A4

Series		
P102		
Hazard Performance - select one		
S	Standard Atmosphere (Non-explosive)	
Maximum Measuring Range & Process Connection - select one; refer to diagrams on page 3		
M1	0.15 ... 2 meter / G 1" upper or lower threads	
M2	0.25 ... 6 meters / G 1 ½" screwing thread and G 1" upper thread	
M3	0.40 ... 10 meters / G 2 ¼" screwing thread and G 1" upper thread	
Output - select one		
C	4 ... 20 mA with HART	
Electrical Connection - select one		
S	Standard plastic cable gland	
H	Plastic cable gland with cable protection	
C	Pre-installed cable (must inform cable length)	
Cable Length – please inform in meters (only when option C above is selected, otherwise leave blank)		
Cable length in meters (Example: 15 = 15 meters)		
Accessories – optional; will be quoted as a separate line item		
A1	Telescopic bracket	
A2	Quantity 2 O-ring seals	
A3	Universal USB to HART converter (See P117 product)	
A4	Horn adapter (G1", G1 ½", G 2 ¼")	
A5	Lock nuts (G1", G1 ½", G 2 ¼")	
A6	Stainless Steel Weld flanges (G1", G1 ½")	
A7	Carbon Steel Weld flanges (G1", G1 ½")	
A8	Protecting Hose (Only for Electrical Connection H)	

Ordering Example: P102SM3CS10

P102 Ultrasonic level meter
S Standard Atmosphere (Non-explosive)
M3 0.40 ... 10 meters / G 2 ¼" screwing thread and G 1" upper thread
C Current output (4 ... 20 mA)
S Standard plastic cable gland
10 Cable length in meters

Ordering Example: P102SM1CH35

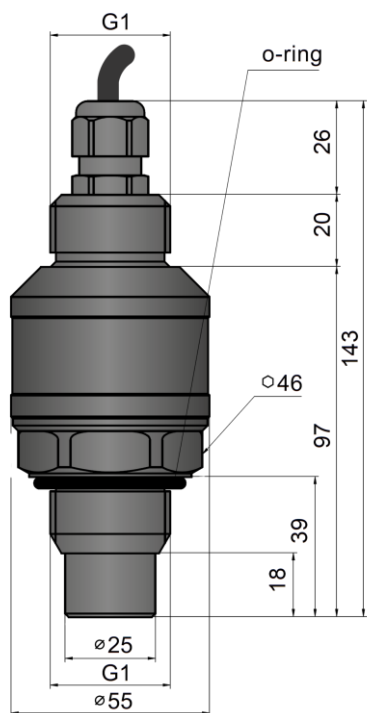
P102 Ultrasonic level meter
S Standard Atmosphere (Non-explosive)
M1 0.15 ... 2 meter / G 1" upper or lower threads
C Current output (4 ... 20 mA)
H Plastic cable gland for protective hose
35 Cable length in meters

Technical Parameters

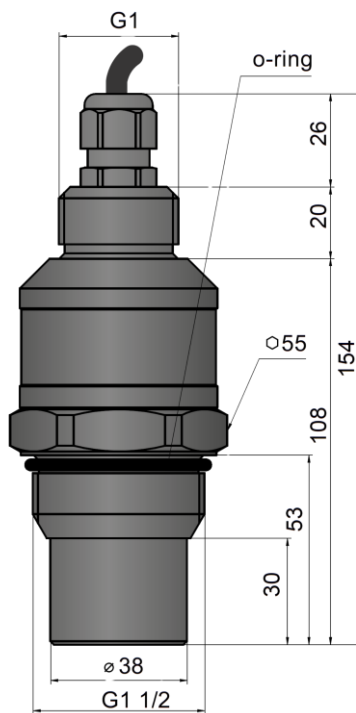
Technical Parameters

Electrical	Supply Voltage	18 ... 36 VDC	
	Output	4 ... 20 mA, HART	
Measuring	Measuring Range ¹⁾	Measuring Range M1	0.15 ... 2 meter
		Measuring Range M2	0.25 ... 6 meters
		Measuring Range M3	0.40 ... 10 meters
	Accuracy (within total range)	0.15%	
Environmental	Ambient Temperature Range	Measuring Range M1	-22°F ... 158°F (-30°C ... +70°C)
		Measuring Range M2	-22°F ... 158°F (-30°C ... +70°C)
		Measuring Range M3	-22°F ... 140°F (-30°C ... +60°C)
	Maximum Operation Overpressure (On transmission surface)	14.5 PSI	
	Protection Class	IP68	
Mechanical	Mechanical Connection	Measuring Range M1	G 1" upper or lower threads
		Measuring Range M2	G 1 ½" screwing thread and G 1" upper thread
		Measuring Range M3	G 2 ¼" screwing thread and G 1" upper thread
	Recommended Cable	PVC 2 x 0.75 mm ²	
	Housing Material	All plastic PP design with PVDF transmitter	

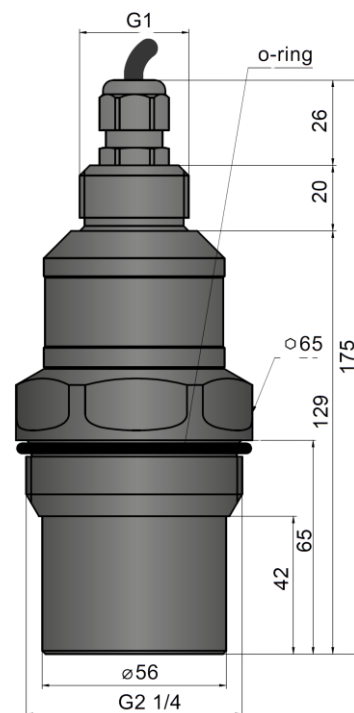
1) In case the level of bulk-solid materials is measured, the measurement range is reduced.



Measuring Range M1
(0.15 ... 2 meters)

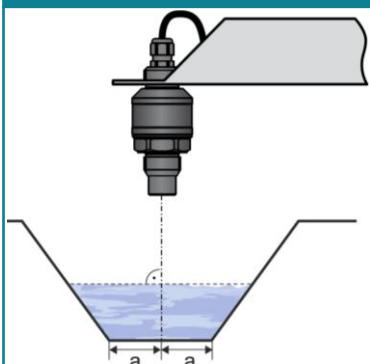


Measuring Range M2
(0.25 ... 6 meters)

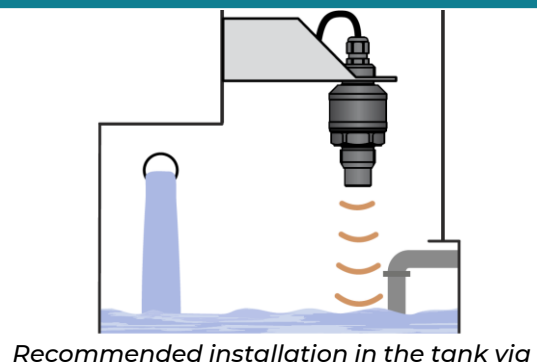


Measuring Range M3
(0.40 ... 10 meters)

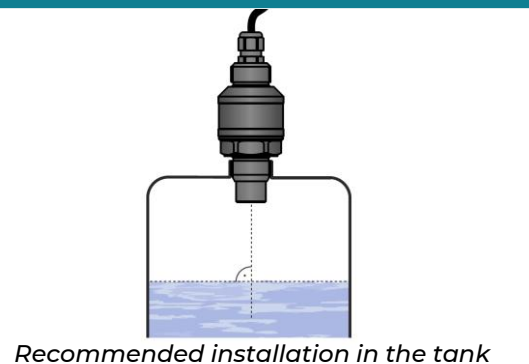
Installation



Installation in the trough



Recommended installation in the tank via the upper thread



Recommended installation in the tank using the bottom thread

Additional Images



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