

Ultrameter I

Series 8100



benefits

Low cost

Simple to program

Ease of installation

Proven performance

2 wire acoustic wave Transmitter

features

- Two wire loop powered
- 12 - 30 V DC
- IP 67 housing
- Compact size
- PVDF wetted parts
- False echo rejection
- 2" BSPT or NPT process connection



The compact construction coupled with integral LCD display, three push buttons under the lid for security, and just eight parameters to set means that Ultrameter I is probably the simplest level transmitter on the market to calibrate and use. Ultrameter I can be configured for either level or distance in metres, feet or a percentage of span. Empty distance and span can be entered in real values, anywhere within the instruments range.

Conventional loop powered ultrasonic level transmitters are generally slow to respond to changing levels and care needs to be taken when considering their use. Ultrameter 1 can track level changes as fast as 10 metres per minute, without risk of losing signal.

Hazardous area application

ATEX hazardous area approved units are available for use in hazardous environments. The transducer is manufactured in PVDF and is ideal for use in corrosive applications.

Using a combination of unique echo extraction routines, which have proven so successful in thousands of ultrasonic level measuring instruments supplied world wide, ensure that Ultrameter I will provide the level of performance expected.

This False echo rejection is further enhanced by using the selectable FER function which enables the instrument to identify two fixed obstructions within the path of the Ultrasonic beam, memorise their position and ignore them during the measuring process.

Specifications

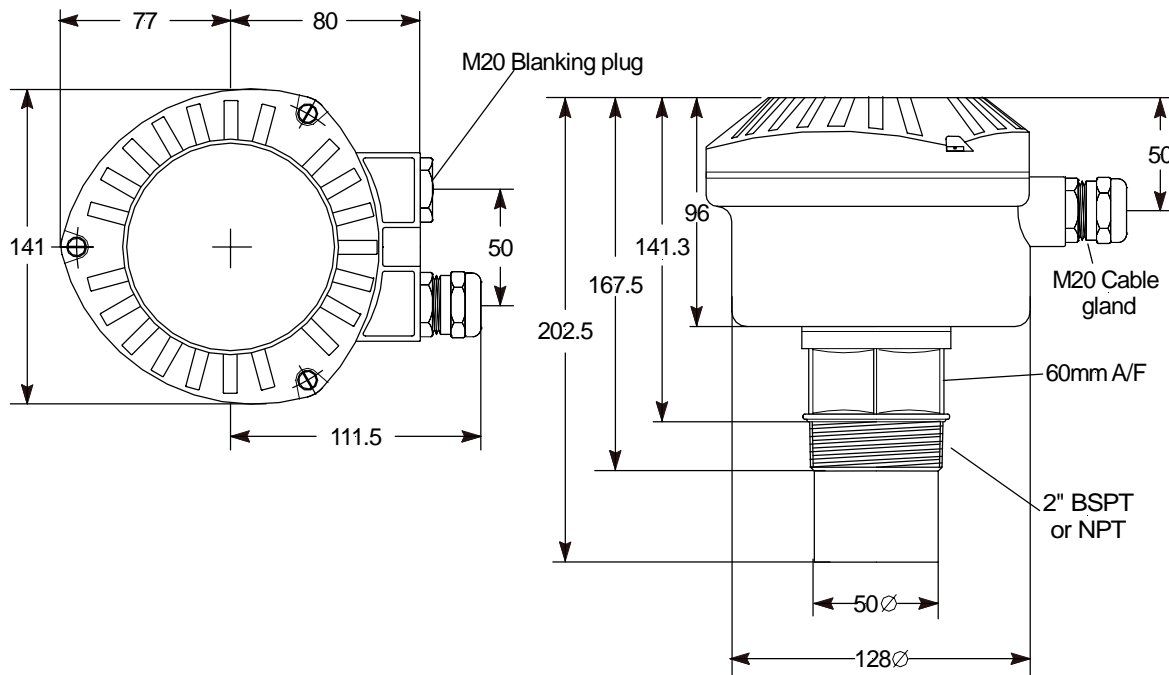
	Model 8100	Model 8100/HA	Model 8100/IS
Functionality	Level or Distance	Level, Distance, Volume, Flow	Level, Distance, Volume, Flow
Measuring Range	0.3m to 8m/1ft to 26ft	0.45m to 11m / 1.5ft to 36ft	0.45m to 11m / 1.5ft to 36ft
Environmental protection	IP67 - NEMA 4	IP67 NEMA 4	IP67 NEMA 4
Housing material	Glass Filled Nylon (GFN)	Glass Filled Nylon (GFN)	Glass Filled Nylon (GFN)
Power supply	12 to 30 V DC - Loop powered	12 to 30 V DC - Loop powered	12 to 30 V DC - Loop powered
Analogue output	4-20mA	4-20mA	4-20mA
Load impedance	Maximum 750 Ohms	Maximum 750 Ohms	Maximum 750 Ohms
Communication Protocol	-	HART	HART
Relay outputs	-	2 x SPST 1A @ 24 VDC	-
Display	Integral four digit LCD	Integral four digit LCD	Integral four digit LCD
Electrical entry	2 x M20 x 1.5mm	2 x M20 x 1.5mm	2 x M20 x 1.5mm
Transducer material	PVDF	PVDF	PVDF
Process connection	2" BSPT / NPT	2" BSPT / NPT	2" BSPT / NPT
Resolution	Better than 1mm / 1/16"	Better than 1mm / 1/16"	Better than 1mm / 1/16"
Accuracy (of measured range)	<1.0m +/- 5mm. > 1.0m +/- 0.5% *	<1.0m +/- 2.5mm. > 1.0m/3.3ft +/- 0.25% *	<1.0m +/- 2.5mm. > 1.0m/3.3ft +/- 0.25% *
Damping	1- 99 seconds	1- 99 seconds	1- 99 seconds
Ambient temperature	-20°C to 70°C / -40°F to 158°F	-40°C to 60°C / -40°F to 140°F	-40°C to 60°C / -40°F to 140°F
Operating temperature	-20°C to 70°C / -40°F to 145°F	-30°C to 70°C / -22°F to 158°F	-30°C to 70°C / -22°F to 158°F
Operating pressure (max)	-0.25 to 3 bar / -3.6psi to 43psi max (20°C)	-0.25 to 3 bar / -3.6psi to 43psi max (20°C)	-0.25 to 3 bar / -3.6psi to 43psi max (20°C)
Beam angle	+/- 6 degrees (3db)	+/- 6 degrees (3db)	+/- 6 degrees (3db)
Electromagnetic compatibility	EN50081-1 & EN50082-2	EN50081-1 & EN50082-2	EN50081-1 & EN50082-2
Maximum cable run	3000m / 1.86 miles	3000m / 1.86 miles	3000m / 1.86 miles
Cable specification	Single twisted screened pair	Single twisted screened pair	Single twisted screened pair
Weight	850g / 2 lbs	850g / 2 lbs	850g / 2 lbs
Hazardous Area Approval	-	-	ATEX II 1 G EExia II T6 Intrinsically Safe Zone 0

* Accuracy is measured as a percentage of the measured distance





General Outline



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