

BABBITT INTERNATIONAL

ABM Series Ultrasonic Level Transmitters

FEATURES

- Simple push-button calibration
- 4-20 mA or 20-4 mA output
- Non-volatile memory-batteries not required
- Microprocessor based reliability
- Ignores peripheral obstructions
- Built-in temperature compensation
- Field or bench calibration
- Self-cleaning face eliminates condensation

APPLICATIONS

- Water / Wastewater
- Chemicals / Oils
- Viscous Fluids / Slurries
- Food and Beverages

GENERAL

Ultrasonic Level Transmitters allow simple and reliable non-contact level measurement of fluids in a tank, sump or other container. The microprocessor-controlled circuit generates a pulse that is transmitted from the transducer face. This pulse is reflected back from the fluid surface and the transit time is converted into a current output directly proportional to the fluids level.

Because the speed of sound through air changes as the air temperature changes, each transducer has built-in temperature compensation, thus increasing the accuracy of the output.

Our proprietary circuit automatically filters out false echoes that may be produced by peripheral obstructions in the tank. This unique feature allows the unit to work in a standpipe over the full range of operation.

OUTPUT

The current output can power a load of up to 750 ohms. The output may be proportional or inversely proportional (either 4-20 mA or 20-4mA). The output is isolated on AC powered units. Lost echo hold time is 30 seconds, then an output of 22mA.



CALIBRATION

A single push-button is used to set the zero and span.

Calibration can be done in the vessel by varying the fluid level or the unit can be calibrated on the bench by aiming the transducer at a target. Factory pre-calibrated units are available.

The zero and span points are independent of each other, fully adjustable over the units range and stored in non-volatile memory. Calibration feed back is via a "green-yellow-red" LED.

Model Number	Operating Range	Operating Frequency	Mounting Thread
ABM300/400-45U	12" to 60'	45 KHz	3" NPT
ABM300/400-52U	11" to 50'	52 KHz	3"/ 2" NPT
ABM300/400-70U	10" to 30'	70 KHz	2" NPT
ABM300/400-80U	8.5" to 20'	80 KHz	2" NPT
ABM300/400-81U	7" to 16'	81 KHz	1.5" NPT
ABM300/400-148U	5" to 9'	148 KHz	1" NPT

SPECIFICATIONS

ELECTRICAL

Power (+/-20%):	115VAC/60 Hz 230VAC/50 Hz (Optional) 12-30 VDC
Output:	4/20mA or 20-4mA, 6.1uA resolution 750 ohms Isolated w/ AC supply Non-isolated w/ DC supply
Fuse:	0.125A/250V type 2AG

MECHANICAL

Process Entry:	Threaded per chart
Conduit Entry:	1/2" NPT - plastic conduit
Transducer:	PVC
Enclosure:	PVC-94VO

ENVIRONMENTAL

Temperature:	-40°F to 140°F (Transducer & Electronics)
Pressure:	15 PSIG Max.
Area:	ENTECLA Certified #8294 - CSA1010.1 - UL 61010A-1 - IEC 61010

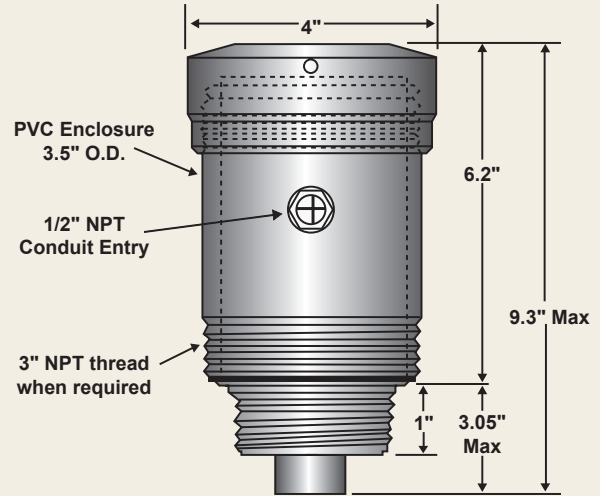
OPERATIONAL

Dead Zone / Range	Model dependent, see chart on front.
Accuracy:	+/- 0.25% of span
Lost Echo Hold Time:	30 seconds: output 22mA
Temp. Compensation:	In transducer

Specifications subject to change without notice.

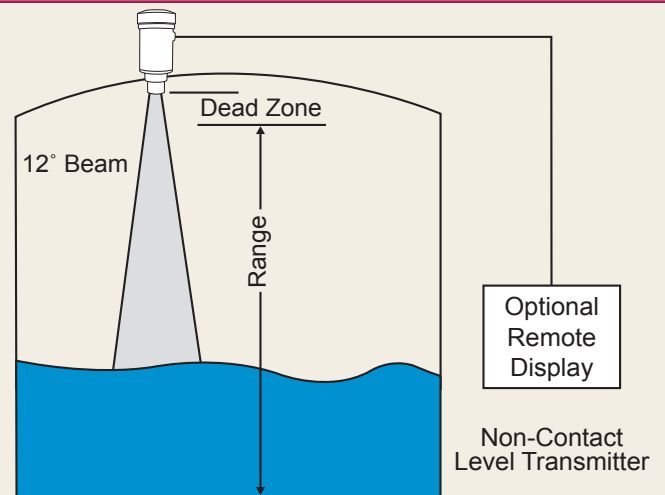
ORDERING INFORMATION

	ABM - xxx - xxx U
300 = 3 Wire, DC Power	-----
400 = 4 Wire, AC Power	
Operating Frequency (see chart on front)	-----



CALIBRATION

	SET 20 mA	LED COLOR	TIME
 TARGET	1. Push button	Green	0 seconds
	2. Release button	Yellow	3 seconds
	3. Observe	Flash	Flash to Acknowledge
	SET 4 mA	LED COLOR	TIME
 TARGET	1. Push button	Green	0 seconds
	2. Release button	Red	3 seconds
	3. Observe	Flash	Flash to Acknowledge



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