



**DESCRIPTION** This low cost, two-wire transmitter determines the liquid level by measuring the liquid head pressure. It is very similar to a standard bubbler system, but with an important advantage: the Leveldata<sup>™</sup> does not require a compressed air supply.

The head pressure of the liquid is sensed at the reservoir located at the bottom of the system and transmitted up the impulse tube. The impulse tube, in turn, transmits this pressure up to the differential pressure transducer (DP) located inside the top-mounted enclosure. This pressure is converted by the DP transducer and control electronics into a 4-20mA signal for display to a PLC or a process meter. The Leveldata<sup>™</sup> offers many other advantages, including static pressure compensation, temperature compensations, and intrinsic safety.

## FEATURES AND BENEFITS

### Does Not Require Compressed Air Supply

- True DP level measurement
- Automatic compensation for pressurized vessels
- Non-fouling

### 3/4" NPT Mount

- Low installation cost

### Rigid 316 Stainless Steel Impulse Tube

- Rugged and reliable

### Easy Set-up

- Simple zero (null) and span adjustment

## HOW TO ORDER

GAG2000 -

- 00\* = 0-140" H<sub>2</sub>O Range
- 01\* = 0-420" H<sub>2</sub>O Range
- 02\* = 0-140" H<sub>2</sub>O DP Range\*\*, pressurized vessel
- 03\* = 0-420" H<sub>2</sub>O DP Range\*\*, pressurized vessel
- 04 = 0-32" H<sub>2</sub>O 55 Gallon Drum
- 05 = 0-32" H<sub>2</sub>O DP55 Gallon Drum\*\*, pressurized vessel
- 06\* = 0-28" H<sub>2</sub>O Range
- 07\* = 0-28" H<sub>2</sub>O DP Range\*\*, pressurized vessel
- 10\* = 0-4" H<sub>2</sub>O Range (not FM or UL approved)

LEVELDATA<sup>™</sup>

\* Includes transmitter and reservoir only  
\*\* 10 PSIG max

All units except the drum version require the purchase of the impulse tube separately. Alternately, a 1/8" schedule 80 pipe (threaded at each end) may be purchased locally (316 SS recommended).

## RIGID IMPULSE TUBE

GAG 220-012 | 1/8" 316 SS, Schedule 80 pipe, threaded both ends

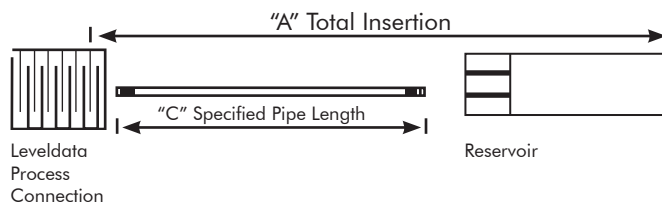
GAG 230-003 | 1/8" 316 SS coupling. Required for lengths over 20' (6,100 mm) only

To order pre-cut & threaded rigid impulse tube (pipe) for the Leveldata<sup>™</sup>, include the following dimensions:

- A: Total insertion required, in inches (or mm)
- C: Length to be specified when ordering, in inches (or mm)
- C:  $A - A/24 + 0.5$  inches (or 12mm)

### Example

- A: Insertion Length = 100 inches
- C: Tube Length =  $100 - (100/24) + 0.5$
- C: 96.33 inches



## SPECIFICATIONS

### FUNCTIONAL

Operating Power	24 VDC
Operating Temperature	-40° F to 120° F (-40° C to 49° C)
Accuracy	±1.0% of calibrated span (combined linearity, hysteresis, stability) between 0° F to 150° F, (-18° C to 66° C)
Output	4-20mA into 600 ohms maximum @ 24 VDC (impedance increases with voltage)
Turndown	2:1 applies to 0-28" and 0-32" ranges 5:1 applies to all other ranges

### PERFORMANCE

Ranges	0-4", 0-28", 0-140", or 0-420" W.C.
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### PHYSICAL

Mounting	3/4" NPT, 316 SS
Conduit Entry	3/4" NPT
Enclosure	NEMA 4X, Type 4 aluminum with corrosion resistant polyester coating
Rigid Impulse Tube	1/8" Schedule 80, 316 SS
Reservoir	.875" 316 SS tube included (field modified per application)

### APPROVALS

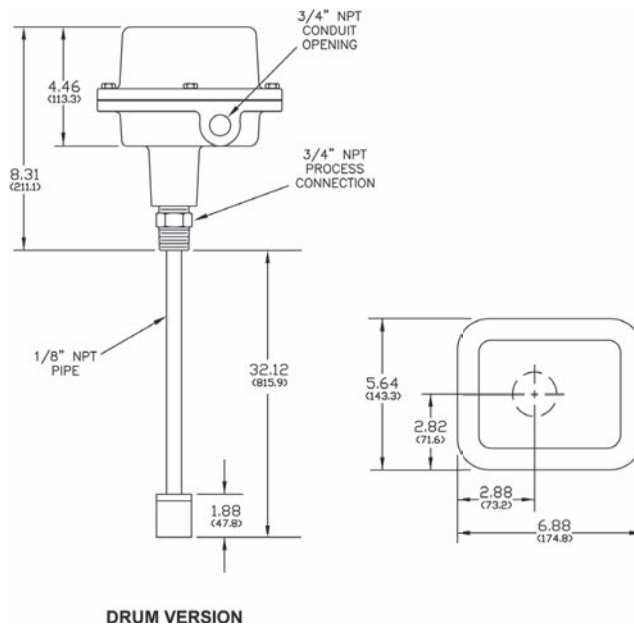
	FM (US) Intrinsically Safe for Class 1, Division 1, Group C and D; T4; Type 4 UL (US) General Purpose
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### NOTES

- Assembled unit must be lowered vertically into liquid.
- Ranges specified are based upon water (SG=1.0). Fluids with a higher or lower specific gravity (SG) will decrease or increase range, respectively (in proportion to the SG change).
- All fittings to be sealed with Loctite #565/#567.
- Leveldata™ will operate properly with all process displays having a transmitter excitation supply and PLC/DCS's accepting 4-20mA inputs.

## DIMENSIONS

Full size diagrams located at [www.bindicator.com](http://www.bindicator.com).



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**venture**  
MEASUREMENT

GAG280000 Rev. F

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