



A230 Bubble Detector/Air-In Line Sensor



The **A230 Bubble Sensor** is one of our standard sensors for use with the most 1/8 inch OD tubing. It uses our proprietary digital noninvasive ultrasonic bubble sensing technology to accurately and reliably detect bubbles in a wide variety of fluids in rigid or soft tubing materials. Custom characteristics can be provided for OEM users.

Specifications:

Tube Size:	1/8" OD Nominal
Bubble Size:	Customer Selectable
Sensor Input:	See Product Configuration
Sensor Output:	High: Liquid Low: Air (See Product Configuration)
Response Time:	50 Microseconds (Typical)

Lead Out:

Red: VCC
Black: Ground
Green: Output
White: Test (Optional)

Features:

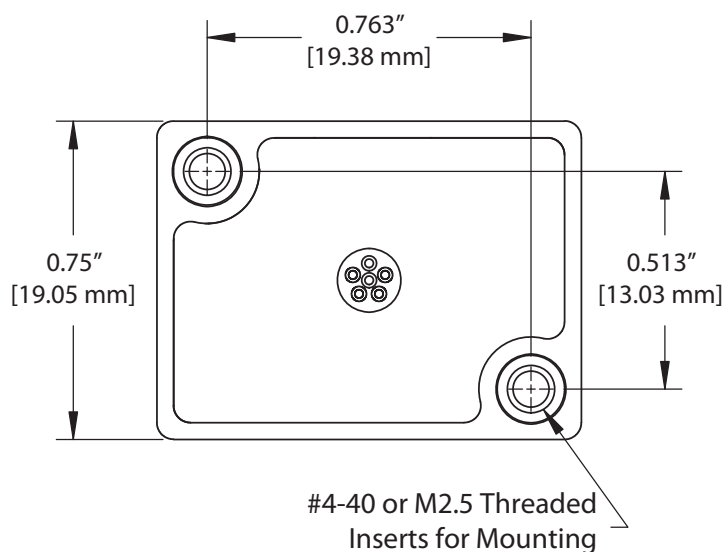
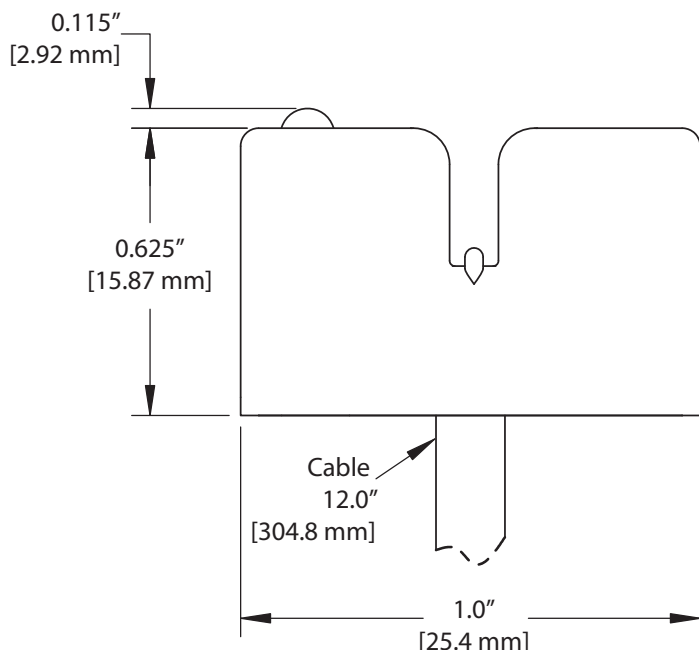
- Integrated self-test function
- Power consumption as low as 3mA on some models
- Dry-couples with a variety of tubing materials
- Custom pinouts, cables, and connectors available
- Digital "smart" circuit for superior customability
- Noninvasive ultrasonic bubble sensing technology
- Optional red/green LED for visual output indication

Applications:

- Medical Instrumentation
- Semiconductor Processing
- Food Dispensing Equipment
- Chemical Processing
- Pharmaceutical Industry



STRAIN MEASUREMENT DEVICES



Product Configuration

A230 - S L T D

Mounting Options

S: #4-40 Threaded Inserts
M: M2.5 Threaded Inserts

LED Configurations

L: With Red/Green LED to indicate output

Test Pin Functionality

D: Test Pin Disabled
E: Test Pin Enabled (Contact SMD)

Electronic Configuration

T: Supply Voltage: 5-15 VDC
Output Signal: 5V TTL
High: >4.3 VDC
Low: <0.6 VDC
3mA Max

P: Supply Voltage: 5-24 VDC
Output Signal: PNP/Sourcing
High: >Vsupply - 0.5V
Low: Open, 10K Pull-Down
300mA Max

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