

# Branom Instrument Co.

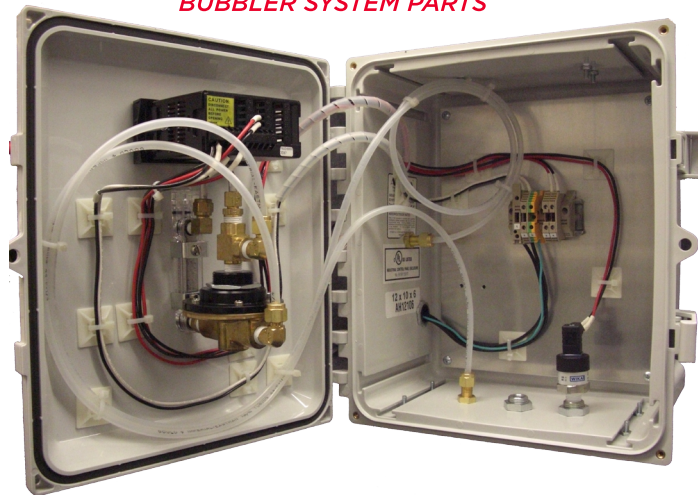
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**BRANOM**  
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## BRANOM BUBBLER SYSTEM

**The Branom Bubbler System** is a proven, reliable and accurate means of measuring fluid level in open or vented containers, even in harsh environments such as reservoirs, cooling tower sump tanks, vented fuel tanks or drain sump tanks. It uses a tube with an opening below the surface of the liquid level. A fixed flow of air is passed through the tube.

### BUBBLER SYSTEM PARTS



Pressure in the tube is proportional to the depth of the liquid over the outlet of the tube if the liquid density is constant. Air bubbler systems are a good choice for open tanks at atmospheric pressure and can be built so that high-pressure air is routed through a bypass valve to dislodge solids that may clog the bubble tube. The technique is inherently self-cleaning.



## KEY ADVANTAGES

The bubbler offers several advantages over other types of level and differential measuring devices.

- Immune to surface foam, pH, conductivity, temperature, turbulence, and solids content.
- Reliability is better than other contacting level measurement methods because the dip tube is the only part of the system in contact with the liquid being measured.
- The sensor is not in direct contact with liquid, offering long life and greater calibration stability.
- Accuracy from .5% to .065%.
- With proper installation, the instrument panel can be located up to several hundred feet from what is being measured.
- Suitable for applications with corrosive, acidic, hazardous, volatile, molten, cryogenic, or radioactive liquids.

## CUSTOMIZATION OPTIONS

The Branom Bubbler System is assembled, wired and configured to your specifications, tested and ready for immediate installation.

- Level Output to SCADA
- Adjustable Level (High and/or Low) Alarms
- Manual or Automatic Purging

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## BRANOM BUBBLER SYSTEM SPECIFICATIONS

### PERFORMANCE

Accuracy	Pressure	≤ .5% of Span Optional < .65% of Span
Resolution	Pressure	Installation Dependent
Range	Pressure	Depth
	15 PSI	34.6 ft.
	30 PSI	69.2 ft.
	50 PSI	115.3 ft.
Bubbler Gas Delivery	Inert Gas/Air Flow Technology	Rotameter
	Gas Flow Control	Adjustable Valve
Purge Function	Purge Pressure	Dependent on Plant Air, Max 100 PSI
Compressor	Type	Customer Supplied Plant Air or Nitrogen
	Operation	Continuous
General	Pressure Overload	2X Range
	Enclosure Rating	Nema1
Output	Analog DC	4-20 mADC or 0-10 VDC
Mechanical/Power		
Material	Polycarbonate Enclosure	
Power Requirements	Voltage Input	85-250 VAC 11-36 VDC, 24 VAC
	Surge Protection	Internal Fuse on AC Power
Connection	Power Terminals	Standard DIN Rail Mounted Terminal Blocks
	Pressure Inlet	1/4" MNPT

### Communication

Communication Protocol Option Cards (Field Upgradeable)	Serial: RS485 Serial: RS 232 DeviceNet Modbus Profibus	
Optional Set Point Cards (Field Upgradeable)	Dual Form C Relay Quad Form A Relay Quad Form C Relay Quad Sinking DC Quad Sourcing DC Dual Triac/Dual SSR	
Environmental		
General	Operating Temperature	32-122 Degrees F (0-50 Degrees C)
	Storage Temperature	32-122 Degrees F (0-50 Degrees C)
Miscellaneous		
Warranty	The Branom Bubbler System is warranted against defects in materials and workmanship for 1 year from date of shipment.	
Note	Specifications subject to change without prior notice due to ongoing product testing and improvement.	

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