



BLS Series

Air Bubbler Level Measurement System

- Can be used with highly viscous liquids
- 4-20 mA output
- On site or remote displays
- Easy maintenance
- No moving parts
- Intrinsically safe – pneumatic sensor output – no power in the process area

The BLS series air bubbler is a simple and proven level measurement system for dirty/wastewater treatment. The bubble tube is the only component in contact with the liquid.

The control unit consists of pressure elements, a needle valve, V/I converter and indicator. Even if sludge or suspended solids become clogged in the bubble tube, they can be blown out by operating the bypass valve. There are two kinds of bubble tube: an easily installed flexible PVC hose and a 304SS tube which can withstand high temperatures.

■ Applications

The BLS is ideal for measuring drainage, night soil or sewage water with high viscosity and/or suspended solids.

■ Operational Description

The BLS system operates by bubbling a small flow of air from a submerged dip tube and then measuring the resulting air back pressure. Pressure increases proportional to depth of measured liquid until bubbles (air) are forced out the bottom. At this point, pressure stabilizes and the pressure is measured by sensor.

The pressure sensor signal is converted to a 4-20 mA DC output. Indication is provided by control unit.



continuous level measurement – solids/liquids



For the Latest Information

Try Our Fax Back System at **1/916/431-6544**

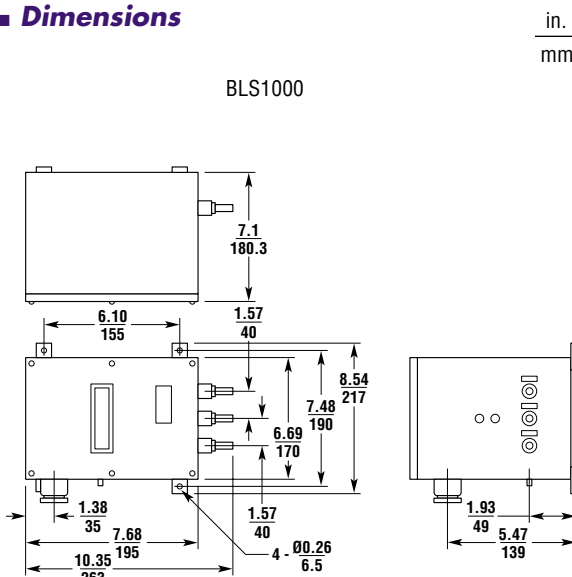
On the Internet: **www.stiautomationproducts.com** E-mail: **sales@stiautomationproducts.com**

BLS Series – Air Bubbler Level Measurement System

■ Converter Specifications

Style: 4 wire
Measuring Range: 0 to 30 ft. (0 to 10 m)
Power Supply: 24 VDC \pm 2 VDC
Power Consumption: 1 W approx
Power Pressure Supply: 28 to 44 psi (2 to 3 bar)
Air Source: 0.3 to 1 l/min. variable
Overpressure: 44 psi (3 bar)
Material
Housing: CS plate
Nipple: Brass
Enclosure Protection: IP23/NEMA 3
Mounting: Wall or pole mounting
Accuracy: \pm 0.5% of span
Temperature Characteristics: 0.05% of span
Load Resistance: 800 max
Amplification: 1-5 times
Output Signal: 4-20 mA DC
Operating Temperature: 32 to 128°F (0 to 50°C)
Weight: 12.1 lb. (5.5 kg) approx.

■ Dimensions



continuous level measurement – solids/liquids



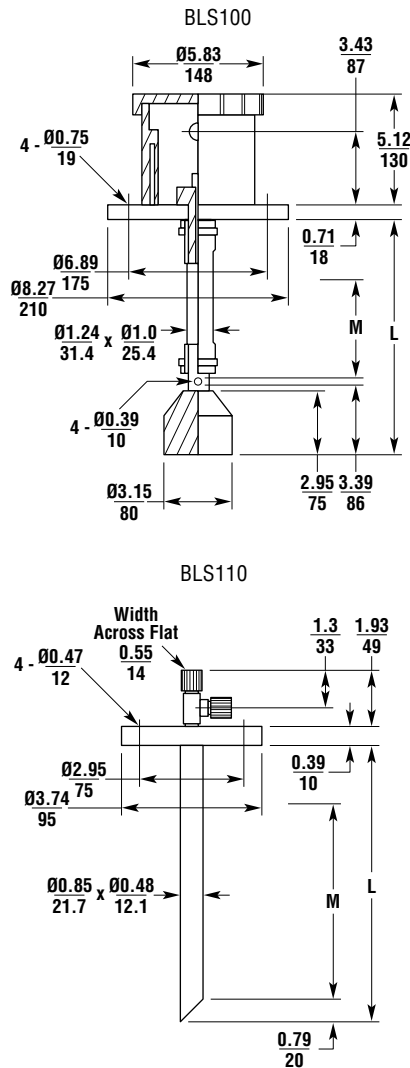
To Assist Your Selection Process

See the level and flow control engineering form located at www.automationsensors.com/6259 (or fax back #6259).

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■ Dimensions

in.
mm



■ Bubble Tube Specifications

Model	BLS100	BLS110
Style:	Flexible	Rigid pipe
Standard Mounting:	JIS 10K100A	JIS 5K25A
Piping:	Hose nipple	Hose nipple
Material		
Flange:	PVC	304SS
Detector:	PVC tube	304SS pipe
Anchor Weight:	304SS	—

■ Ordering Information

BLS						
Configuration						
100	Flexible Type					
110	Rigid Pipe Type					
Mounting Type						
0	Flat Face Flange					
1	Raised Face Flange					
9	Others					
Connection Details						
J	JIS Flange	(see technical reference section for dimensions and ordering codes)				
A	ANSI Flange					
D	DIN Flange					
P	JPI Flange					
Z	Others					
Length of bubbler tube						
(null)	4000 mm (standard)					
L	Specify length in mm					
Converter (order separately)						
BLS1000	4 wire					



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Scientific Technologies Inc.
Automation Products Group ... Providing
tailored solutions for measurement applications.



BLS-3

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