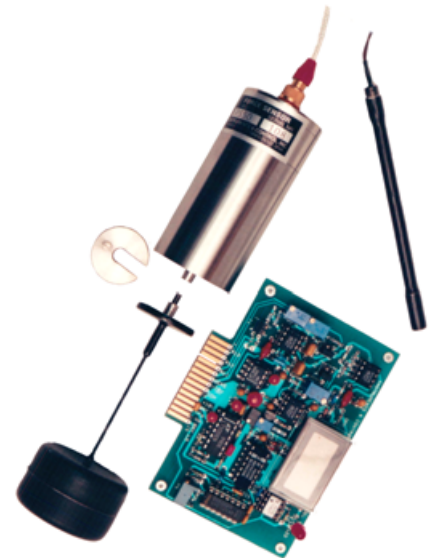


# LIQUID DENSITY TRANSDUCERS, Models SG & SGB.

The SG and SGB models are specific gravity transducers for liquids. They provide a continuous output by using a small float immersed in the liquid. A force sensor measures the effective weight of the float, which is a linear function of the liquid density. The sensor is connected to a board containing the signal conditioning circuitry and digital readout. An optional temperature sensor immersed in the liquid can be used to compensate for the temperature effect on the density. On – board trimmers are provided to adjust span, zero and temperature compensation. Model SG uses an LVDT force transducer for moderate accuracy. Model SGB uses a servo type force sensor for a higher level of accuracy.



### Some of the important characteristics:

- ❖ On–line testing, no need for sampling.
- ❖ Small size.
- ❖ Local or remote signal conditioning.
- ❖ Simple calibration using weights.
- ❖ Low power consumption.

Specification	Model SG	Model SGB
Measuring range (gram/cc)	0.8 to 1.2	0.2 to 2
Accuracy (at constant temperature)	±0.001	±0.0001
Temperature sensitivity (1/°C)	±0.0001typ	±0.00002typ
Supply	±15VDC/15mA	±15VDC/20mA
Analog output	0.001V/gram/cc	
Resolution	Infinite	
Display resolution	0.001	0.0001
Sensor dimension	1.2" diam., 2" long	1.375" diam., 2.5" long
Sensor material	#303 stainless steel	
Float dimension	1.55" diam., 1" long	
Float material	#304 stainless steel	
Board dimension (in)	3" x 2.8"	4" x 3"

### OPTIONS:

- ❖ 4 to 20 mA or frequency output.
- ❖ Adjustable set – points.
- ❖ Temperature compensation, measurement and readout.
- ❖ Battery operation.
- ❖ Line operation.

Rev. B

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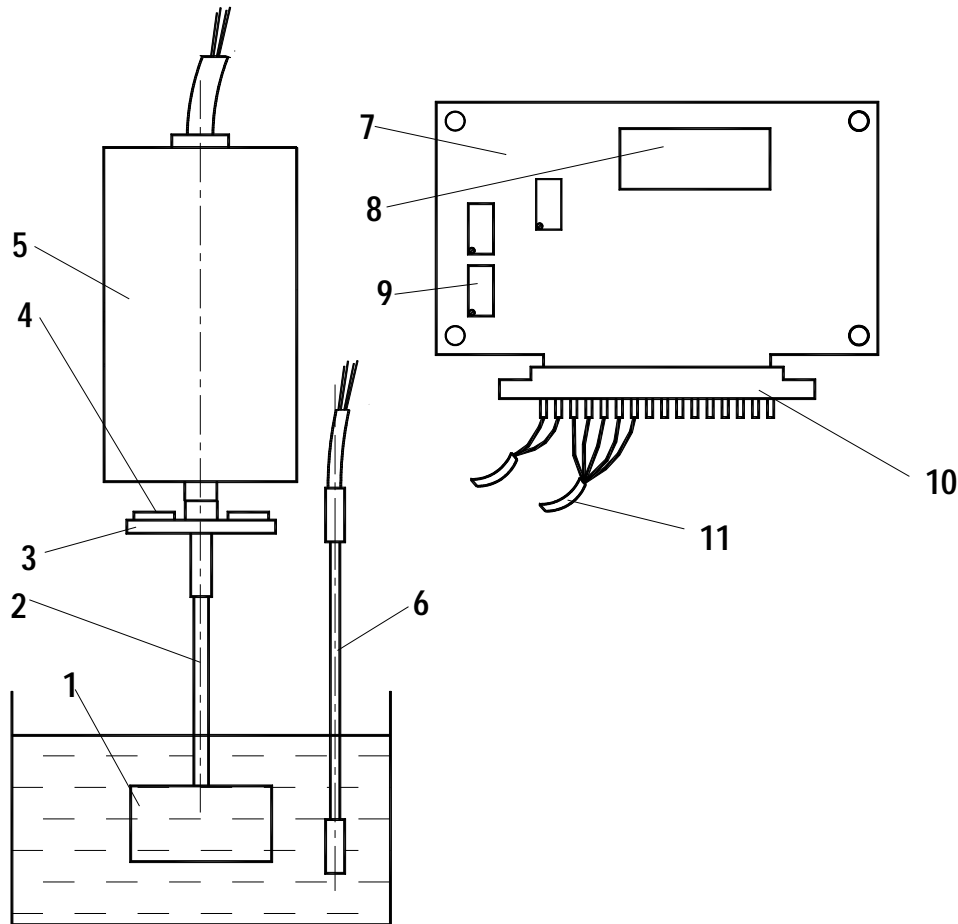
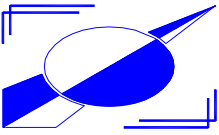
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**Instruments & Control Inc.**

540 East Main St., Branford, CT 06405, USA  
fred@singer-instruments.com

Tel: 203-481-7278  
Fax: 203-488-7190



- 1 - Float
- 2 - Connecting rod
- 3 - Fume deflector / weight support
- 4 - Calibration weight
- 5 - Force transducer
- 6 - Temperature sensor
- 7 - Signal conditioner board
- 8 - Display
- 9 - Adjustment trimmer
- 10 - Connector
- 11 - Interconnection cable