

MSL600

Sludge Blanket Level Monitoring

- *Continuous measurement of sludge blanket level interface*
- *Integral air purge cleaning system ensures reliable measurement and minimal maintenance*
- *Optimized for use with clarifiers and thickeners containing municipal and industrial wastewater treatment sludge*
- *An abundant range of built-in display, control and alarm features*
- *Easy to use menu driven programming allows complete configuration of the unit in just a few minutes*



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MSL600 Control Unit and Transducer



MSL600

- System includes a bridge mounted control unit and ultrasonic transducer
- Easy installation using a handrail mounting bracket
- Transducer self-cleaning facility
- Display shows trend and sludge profile

Additional Information

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TABLE 1. MSL600 Transducer Ordering Information

★The Standard offering represents the most common options. The starred options (★) should be selected for best delivery. The Expanded offering is subject to additional delivery lead time.

Model ⁽¹⁾	Product Description	
Standard		Standard
MSL603	MSL600 transducer with integral galvanized mild steel mounting bracket and 33 ft. (10 m) cable/hose	★
MSL603/SS	MSL600 transducer with integral 316L stainless steel mounting bracket and 33 ft. (10 m) cable/hose	★
MSL603/1	MSL600 transducer with 33 ft. (10 m) cable / hose, 3/4-in. BSP to 1 1/4-in. BSP adaptor, no mounting bracket	★
Typical Model Number: MSL603		

(1) The MSL603 transducer replaces the MSL602. To replace an old style MSL602 transducer, order MSL603/1.

TABLE 2. MSL600 Control Unit Ordering Information

★The Standard offering represents the most common options. The starred options (★) should be selected for best delivery. The Expanded offering is subject to additional delivery lead time.

Model	Product Description	
MSL600	Controller with integral air clean compressor	
115/230 Vac, Bracket/Wall Mount		
Standard		Standard
Z0	Standard bracket and wall mount version of the control unit	★
Typical Model Number: MSL600 / Z0		

Product Data Sheet

IP261, Rev DA
October 2010

MSL600

Specifications

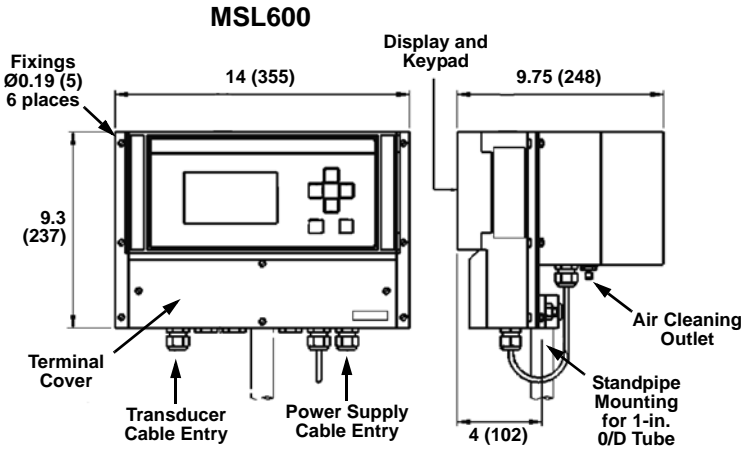
CONTROL UNIT AND SENSOR

General	
Product	Wall or Bracket Mounted MSL600 Control Unit
Measurements	
Range	23 ft. (7 m) maximum
Deadband	1ft. (0.3 m) minimum
Accuracy	±1.4 in. (±35 mm)
Resolution	1 in. (25 mm)
Functional	
Outputs	2 x programmable relays SPDT, 1 x fault relay SPDT, and 0/4–20mA isolated
Cleaning	Transducer self cleaning facility – automatic timed air-purge using the integral air compressor
Physical	
Sensor Material	Ceramic face, PTFE cleaning nozzle, UPVC body
Sensor Cable	Fully encapsulated with 10m / 33ft cable and air clean polyurethane hose
Mounting Thread	1 ¹ / ₄ -in. BSPT. Supplied with ³ / ₄ -in. BSP adaptor
Electrical	
External Power Supply	115 or 230 Vac (50/60Hz)
Environment	
Operating Temperature	Control Unit: –4 to 130 °F (–20 to 55 °C)
	Sensor: –40 to 150 °F (–40 to 65 °C)
Enclosure Rating	IP66
Sensor Rating	IP68

Dimensional Drawings

MSL600 CONTROLLER

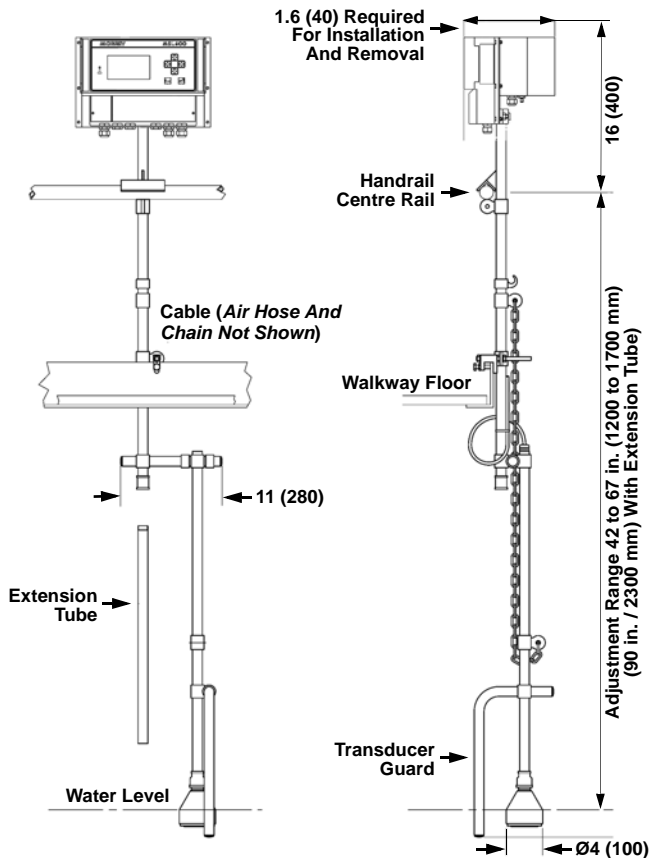
Note: Dimensions are in inches (mm)



M20 cable glands fitted into 0.8-in. (20 mm) entries are supplied as standard, suitable for $\varnothing 0.3$ -in (8 mm) cable

MOUNTING ASSEMBLY

Note: Dimensions are in inches (mm)



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Mobrey Level Solutions

Emerson provides a wide range of Mobrey products for level measurement applications.

POINT LEVEL DETECTION**Vibrating Fork Liquid Level Switches**

For high and low alarms, overflow protection, pump control, including wide pressure and temperature requirements, and hygienic applications. Flexible mounting. Immune to changing process conditions and suitable for most liquids.

- Mobrey Mini-Squing (Compact)
- Mobrey Squing 2 (Full-featured)

Ultrasonic Gap Sensor Liquid Level Switches

For use in non-hazardous industrial processes to detect high or low liquid levels and liquid interface. Immune to changing density, and wide dielectric and pH variations. Suitable for use in most clean and non-aerated liquids, with options for sludges and slurries.

Float and Displacer Liquid Level Switches

Mobrey electromechanical float and displacer level switches are ideal for alarm and pump control duties, especially in critical applications or hazardous areas.

- Mobrey Horizontal Level Switches
- Mobrey Vertical Level Switches

Chambers are available for external mounting of these level switches on process vessels.

Dry Products Level Switches

For high and low level alarms. Including threaded mounting connections, extended lengths, high temperature capability, and multiple detection techniques. Suitable for a wide variety of powders, granules, and free flowing solids with wide variations in bulk densities.

- Mobrey VLS Series – Vibrating Rod Level Switch
- Mobrey PLS Series – Paddle Level Switch
- Mobrey CLS Series – Capacitance Level Switch

CONTINUOUS MEASUREMENT**Ultrasonic Continuous Level Transmitters and Controllers**

Top mounted, non-contacting for simple tank and open-air process level measurements. Unaffected by fluid properties such as density, viscosity, dirty coating, and corrosiveness. Intrinsically Safe versions are available for operating in hazardous areas.

- Mobrey MSP Series Ultrasonic Level and Flow Transmitters
- Mobrey MCU900 Series Universal Controllers

Ultrasonic Sludge Density Blanket Monitoring and Control

Ultrasonic in-line pipe or tank mounted sensors for sludge density measurement and control, and top mounted ultrasonic sensors for continuous measurement of sludge blanket level in Industrial and Municipal effluent treatment processes.

- Mobrey MSM400 – Sludge Density Monitor
- Mobrey MSL600 – Sludge Blanket Level Monitor

Displacer Continuous Level Measurement

Top mounted in a vessel or externally mounted in a vertical chamber. For use in hazardous areas.

- Mobrey MLT100 – Displacer Level Transmitter

Hydrostatic Continuous Level Transmitter

For level measurements in non-pressurized tanks where in-tank problems such as foaming, vapor layers, and temperature gradients prohibit the use of other instrumentation.

- Mobrey 9700 Series hydrostatic electronic level transmitters

SPECIALIZED CONDUCTIVITY**Conductivity Water and Steam Interface Monitoring**

Steam/water interface level gauges using specialized, high performance conductivity probes in external columns and manifolds, ideal for steam plants where reliable and redundant indication of boiler water level and turbine protection is critical.

- Hydratect 2462 – Water/Steam detection Systems
- Hydrastep 2468 – Water/Steam Monitoring Systems

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