

## **MPE Level Monitor Submersible Transducer Specification**

The Level Monitor submersible transducer shall provide a rugged and cost-effective means to measure liquid level for wastewater pumping applications.

When submersed in liquid, the Level Monitor shall convert the pressure exerted by the liquid into a 4-20mA analog signal that shall represent liquid level.

A vent tube in the Level Monitor cable shall transmit atmospheric pressure down the cable to the reference side of pressure sensor, to correct for changes in atmospheric conditions.

The Submersible Transducer shall be supplied with a Transducer Vent Bellows (TVB1) to prevent moisture from entering the vent tube. Breather bag, desiccant, or ceramic disk methods for protection against moisture intrusion shall not be considered equal. The TVB1 shall be din-rail mountable to allow the moisture intrusion protection to be mounted to the control panel subpanel, thus making the moisture intrusion protection a “permanent” fixture within the control panel.

The TVB1 shall contain adequate air volume to allow the transducer to breathe during changes in atmospheric pressure.

The tubing connection from the TVB1 shall be sized to go over the air vent tubing of the Submersible Level Transducer, forming a connection that will not allow moisture intrusion into the air vent tubing of the Submersible Transducer.

The Level Monitor shall fit inside the a 4 inch stilling well, as the outer diameter of the Level Monitor shall be no more than 3.75 inches.

A 316 stainless steel diaphragm and silicone oil fill shall be provided to isolate and protect the pressure sensor from the liquid being measured.

The weight of the Level Monitor shall act to reduce its movement when placed in a moving liquid. The Level Monitor submersible transducer shall weigh a minimum of 6.0 pounds, excluding the cable.

The cable shall contain a strength cord capable of providing support for its weight.

In applications where strong currents are present, the 1/2” NPT fitting on top shall be used to mount the Level Monitor in a fixed position.

All of the metallic components of the Level Monitor shall be 316 Stainless steel.

The Level Monitor shall come with the proper Kellems grip for the Level Monitor cable, for hanging support in the wetwell.

The Level Monitor submersible transducer shall contain a two-stage surge suppressor circuit

containing both MOV and TVS technology to provide high voltage transient protection for the transducer circuitry.

The Submersible Transducer shall have as an option MPE part number LM Surge, a din rail mountable external surge arrester to provide additional protection for the 4-20 mA loop.

The Level Monitor submersible transducer shall come standard with 40 feet of cable for the 5psi and the 10 psi models, and shall come standard with 60ft. of cable for the 15psi model.

The Level Monitor shall be able to be ordered with various lengths of cable.

The Submersible Transducer shall be available in the pressures ranges 5, 10, or 15 psi., or 11.5, 23.1, or 34.6 Feet.

The part number for the Level Monitor submersible transducer shall be LM – (followed by the Pressure Range) – (followed by the cable length). For a 5 psi unit with 40 feet of cable, the part number shall be LM-5-40.

The Level Monitor shall be packaged to include the Level Monitor submersible transducer, Kellems grip, and the Transducer Vent Bellows, TVB1.

The Submersible Transducer shall be the Level Monitor, manufactured by M.P. Electronics, Apopka, Florida, 407-299-3825.