

MPE TVB1 Transducer Vent Bellows Specification

The Transducer Vent Bellows (TVB1) shall be used to provide protection for a submersible transducer vent tube against the entry of moisture. The bellows shall allow normal atmospheric pressure changes to be transmitted to the transducer element without letting moisture latent air into the vent tube.

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.

Without adequate protection of the vent tube, moisture from warm air will enter the vent tube and migrate down to the transducer body. As the transducer body is typically cooler than the warmer air, the water vapor in the warm air may condense into liquid. The use of the TVB1 Transducer Vent Bellows is the most effective method for preventing moisture intrusion into a submersible transducer.

Breather bag, desiccant, or ceramic disk methods for protection against moisture intrusion shall not be considered equal to the TVB1.

The use of a desiccant container for attaching to the vent tube to prevent moisture in the air from entering the vent tube shall not be considered equal as desiccant type devices must be periodically replaced or serviced to remain effective.

Ceramic vent filters attached to the vent tube shall not be considered equal. The ceramic filter devices block water as a liquid from entering the vent tube, but they do not block water vapor.

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 Transducer Vent Bellows shall be part number TVB1, manufactured by M.P. Electronics, Apopka, Florida, 407-299-3825.