

TECH NOTE

TN-117 – Bulkhead Mounting Hole Seal

When ERECTA SWITCH sensors are mounted through bulkheads, tank walls, or cover plates, the mounting hole must be sealed to prevent liquid leakage and to maintain the vapor barrier of the tank.

The ERECTA SWITCH flange nut and O-ring assembly (10-700-FS series) provides a reliable face seal at the bulkhead surface. When the flange nut is drawn down against a smooth, flat surface, the O-ring compresses to create a leak-tight seal. This is the preferred mounting method for most applications.

For rough or irregular bulkhead surfaces (fiberglass, corrugated plastic, cast metal), the O-ring may not seat uniformly. In these cases, apply a thin bead of RTV silicone sealant to the back face of the flange nut before assembly. Allow RTV to cure per manufacturer instructions before placing the installation in service.

For installations requiring the sensor to be mounted from the outside of a sealed tank (outside-in), see Tech Note 109 for the screw-fastened flange nut method. This technique accommodates rough-cut holes and maintains a vapor seal using the flange nut O-ring and three equally spaced mounting screws.

Surface Preparation

For best seal integrity, the bulkhead surface in contact with the flange nut O-ring should be smooth and flat within approximately 0.010". Sand or file rough surfaces before assembly. Clean surface of oils, cutting fluid, and debris before mounting.