

Tank Gauging, Leak Monitoring and Overfill Prevention

A. Tank Gauging Monitor

1. Manufacturer must be ISO 9001 : 2015 certified
2. Provide and install one common remote tank gauging and leak detection system for all tanks that can simultaneously monitor product levels, water levels, temperatures, and leaks in up to eight tanks. System shall be UL listed and provide intrinsically safe outputs for use in Class 1, Group C & D Hazardous Locations when wired in accordance with manufacturers control drawing. System shall also be Third Party Certified and listed to meet EPA leak detection requirements. Locate monitor console where shown on project drawings.
3. Central Processing and Indicating Instrument – Controller shall have a backlit 7-inch color touchscreen. System must be capable of driving a Delivery Defender or Delivery Defender Lite Overfill and Remote Alarm. Controller shall be as manufactured by OMNTEC Mfg., Inc. Model No. **OEL8000IIIB**. The main console will be preprogrammed by the factory and field adjusted as required. Console shall be equipped with (1) RS-232 port, capability for communication. Industry standard communication protocol is standard. MODBUS communications protocol is available as an option.
4. Panel shall come equipped with three LED lights for Ok, Warning, and Alarm status. Alarms shall be displayed visually on a 7" color touch screen with wide viewing angle as well as Warning and Alarm lights on face of panel. System shall have an 85dB piezoelectric horn for audible alarm indication.
5. Panel shall be compact in size not to exceed 8.17" (w) 10" (h) 5.42 (d) and constructed of powder coated industrial steel for indoor mounting. The complete leak / level gauging system shall include a one year parts warranty. The complete leak / level monitoring system shall be as manufactured by OMNTEC Mfg. Inc. Ronkonkoma, NY (631-981-2001) or equal.

B. The Liquid Level Probe

1. Shall consist of a 316-grade stainless steel IP68 rated rigid model **MTG** level probes or model MTG-F Kynar flexible level probes where overhead clearance is not available. Probe shall use magnetostrictive technology with 6 temperature sensing devices and an accuracy of .01 inches in inventory mode and .001 inches in leak detection mode. Probe shall simultaneously provide product levels, water levels, and temperature within the storage tanks.
2. The level probe shall be installed in an accessible 4" NPT male riser pipe. Probe shall include a 4" cap with integral cable gland, floats, and installation kit. (2" NPT option available upon request) All splices must use supplied splice kits. Field wiring from probe to controller must be OMNTEC **EC-2** or Belden 8761 cable in suitable conduit. Level probes shall be as supplied by OMNTEC Mfg., Inc.

C. Product Discriminating Smart Leak Sensors

1. All leak sensors shall be micro processor based and capable of recognizing its unique serial number, part number, and function. All sensors (up to 16) shall be capable of being installed on (1) four conductor cable back to the main controller. The sensors principle of operation shall be electro optic for liquid detection and conductivity to discriminate fuel and water. Sensors shall be remotely testable from console via touch screen Test button icon. Sensors shall be capable of detecting liquid at any angle. Float technology will not be accepted. Interstitial sensors shall be model # BX-PDWS for steel tank interstitials or BX-PDWF-* (* denotes tank diameter) for dry double wall space fiberglass tanks or BX-RES for brine filled fiberglass tanks. Containment sump sensors shall be part number BX-PDS. See project drawings for location and quantities of sensors required. All sensors are to be wired thru conduits using OMNTEC EC-4 cable or 22 gauge four conductors, shielded cable with drain wire. Do not run OEL8000IIIB intrinsically safe low voltage wiring in the same conduit with any other wiring. All sensors shall be as manufactured by OMNTEC Mfg., Inc.

D. Non-Product Discriminating Smart Leak Sensors

1. All leak sensors shall be micro processor based and capable of recognizing its unique serial number, part number, and function. All sensors (up to 16) shall be capable of being installed on (1) four conductor cable back to the main controller. The sensors principle of operation shall be electro optic for liquid detection only. Sensors shall be remotely testable from console via touch screen Test button icon. Sensors shall be capable of detecting liquid at any angle. Float technology will not be accepted. Interstitial sensors shall be model # BX-LWS for steel tank interstitials or BX-LWF-* (* denotes tank diameter) for dry double wall space fiberglass tanks or BX-RES for Brine filled fiberglass tanks. Containment sump sensors shall be part number BX-LS. See project drawings for location and quantities of sensors required. All sensors are to be wired thru conduits using OMNTEC EC-4 cable or 22 gauge four conductors, shielded cable with drain wire. Do not run OEL8000IIIB intrinsically safe low voltage wiring in the same conduit with any other wiring. All sensors shall be as manufactured by OMNTEC Mfg., Inc.

E. Overfill Station

1. Provide near each tank fill terminal as shown on project drawings a low voltage audio/visual NEMA 4X overfill alarm and silencing station. Remote Overfill Station shall indicate the unit is powered and functioning from a distance via Sunlight Visible LED Indicators. An indication that fuel is being dropped and which tank is being filled must be visible at all times during a fill. Remote annunciator light of the tank in alarm shall illuminate and horn shall sound when the liquid level in the tank rises above a pre-programmed high-level point. The horn will remain on until the silence button is pressed or can be programmed to time out. Visual light will remain lit until the level in the tank drops below the high-level point. Remote annunciator shall be Delivery Defender series and shall be manufactured by OMNTEC Mfg., Inc.