



ULTRAFLEX LEVEL SENSOR INSTALLATION AND HANDLING PROCEDURE

OPERATION MANUAL TLS-LM can be downloaded from the website below.

<http://www.drexelbrook.com/Continuous-Level-Measurement/Index.aspx>

• **Unpacking the Ultra Flex Level Sensor**

IMPORTANT

Be sure to read and understand all of the Installation Instructions before beginning the procedure!

Unpacking

Carefully remove the contents of the shipping carton and check each item against the packing list before destroying any packing materials. If there is any shortage or damage, report to the factory at 1-215-674-1234.

Storage

Tank Level Systems should be stored in their original shipping containers until ready for installation. Damage that occurs in storage is not covered under manufacturer's system warranty.



- **CAUTION! KINKING THE LEVEL SENSOR IS CONSIDERED USER DAMAGE AND NOT COVERED UNDER WARRANTY!**
- **DO NOT CUT THE TIE-WRAPPS HOLDING THE LEVEL SENSOR TOGETHER BEFORE INSTALLATION.**
- **DO NOT BEND THE LEVEL SENSOR AT THE SPRING END OF THE EXTENSION SLEEVE.**
- ALWAYS KEEP THE COILS PARALLEL. When the tie-wraps are removed, do not lift one coil separately from the other coils. Never twist one coil 90° from the other coils.
- DO NOT ASSEMBLE THE WEIGHT AND FLOATS ON THE ULTRA FLEX LEVEL SENSOR UNTIL IT IS READY TO BE INSTALLED IN THE RISER OF THE TANK. Carry the parts to the top of the tank before assembling. Do not unwrap the Ultra Flex level sensor until ready to install.
- DO NOT TWIST THE LEVEL SENSOR DURING INSTALLATION. Always keep the coils of the level sensor parallel. "Unroll" it into the tank.
- DO NOT LET THE INSIDE OF THE COIL BECOME LESS THAN 17" (44cm) IN DIAMETER WHILE UNCOILING.

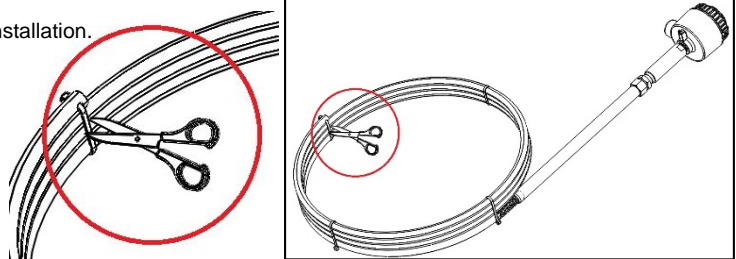


• **Level Sensor Assembly**

- **Step 1)** Cut ONLY the tie-wrap that is securing the end of the level sensor. This is the only tie-wrap that goes through the hole in the end of the level sensor.

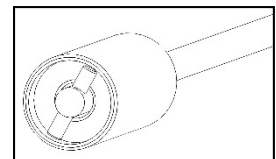
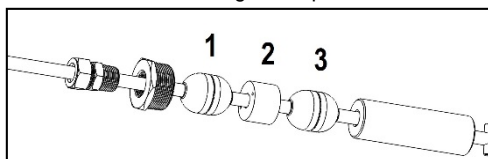
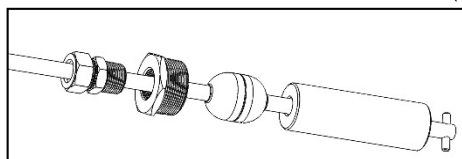


- Do not cut the other tie-wraps until tank installation.
- Do not bend the level sensor.
- Do not kink the level sensor.



- **Step 2)** Install the compression fitting and reducer bushing (customer provided), floats and weight kit on the end of the level sensor.

- If your level sensor was ordered for one float, install the float and then install the weight and pin.
- If your level sensor was ordered for two floats, install the "Product" float (1) first. Then install the spacer (2) second. Then install the "Interface" float (3) third. Then install the weight and pin.

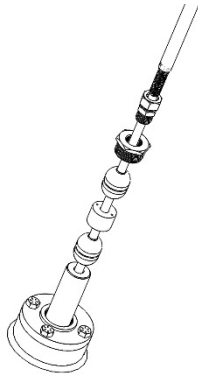


• **Sensor Installation**

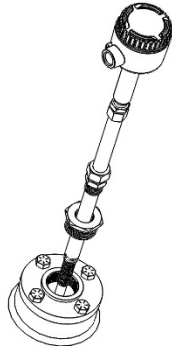
- A two-person team is recommended for installing the Level sensor.
 - **Person one** – Hold and support coiled level sensor and enclosure. Carefully control it so that no damage occurs while “uncoiling” it into the tank.
 - **Person two** – Guide the level sensor into the tank.

NOTE: The Ultra Flex Level sensor requires tank bottom clearance. Level sensor must not touch the tank bottom.

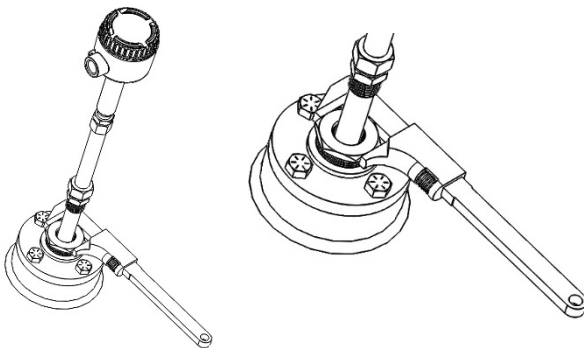
- **Step 1)** Lower the weight and float end of the level sensor into the tank. Slowly and gently feed level sensor into the tank (Dropping full length of the level sensor can cause damage and will void the warranty) and cut tie-wraps one-by-one as the probe is fed into the tank.



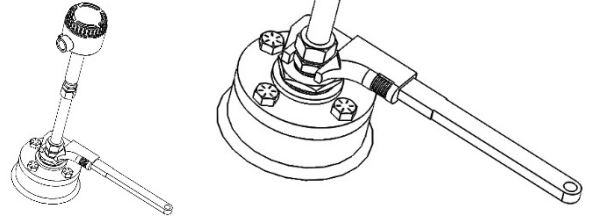
- **Step 2)** Insert the extension sleeve into the tank flange.



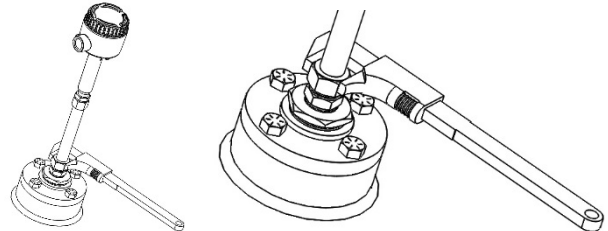
- **Step 3)** Thread and tighten the user supplied reducer bushing.



- **Step 4)** Adjust the Extension sleeve and tighten compression fitting to reducer bushing. The Ultra Flex Level sensor requires tank bottom clearance. Level sensor must not touch the tank bottom! Reference chart in drawing below.

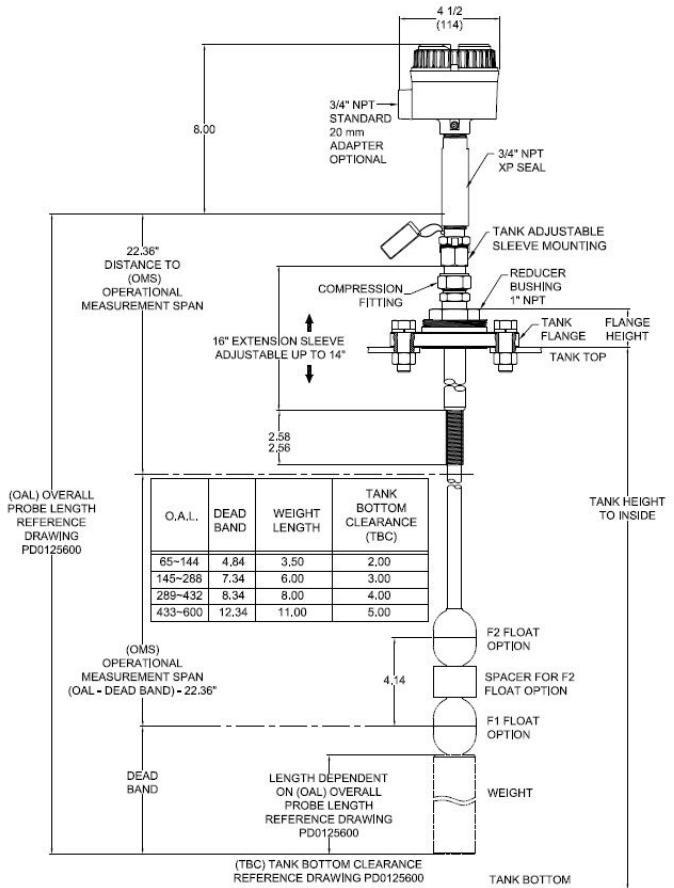


- **Step 5)** Hand-tighten the compression fitting. Turn the fitting 1-1/4 turns after hand tightening. Do not over tighten!



- Extreme temperatures have an effect on level sensor length. In high temperature (158°F/70°C) level sensor will expand. In low temperature (-40°F/-40°C) level sensor length contract.

ULTRAFLEX PVDF SERIES MOUNTING APPLICATION DATA



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