UTImeter Quick User Guide

Before using your device, please ensure of its safe use by referring to the section "Recommendation for Safe Use" of its Operation & Service Manual and follow your company's safety instructions.

1.1 Transportation

- Make sure that the sensing probe is completely stored in the storage tube after use (reading index shall indicate less than 420 mm or 1 ft 5 ").
- For transportation of the unit without its box, always carry the unit with the button handle directed to the body.

1.2 Installation

- This HERMetic equipment must be coupled to a certified HERMetic valve.
- Check that the HERMetic valve is closed.
- Remove the end cap (weather cap / blind cover / security cover) of the HERMetic valve.
- Clean the seal surfaces of the nipple of the valve and of the coupler of the instrument from dust or grease.

  Note: Cleaning of the mating surfaces is very important for earth grounding purpose and for good accuracy on zero reference level.

- Check whether the tape protection tube is moving freely.
- Install the HERMetic instrument on top of the valve by means of the quick coupler. Ensure that the equipment is properly earthed. If not, ground it with the (optional) grounding cable before operating.

1.3 Ullage / interface measurement

1.3.1 Down winding of the sensor

- Open the valve by turning the handle.
- Switch on the equipment: a control beep is audible every 2 seconds.
- Put the tape cleaner on the "DOWN" position. Disengage the knob of the crank handle and lower the sensing probe into the tank by turning the reel. Make sure that the tape does not rub on any sharp edge when lowering as its insulation could be damaged.

  When activating the crank handle, always control through the window that the tape is really moving. If the tape does not move when the handle is activated, stop winding and identify its cause. Make sure the tape cleaner is in "DOWN" position. If the tape is still not moving despite correct position of the tape cleaner, please check if the sensor is stuck somewhere.

1.3.2 Gauging method

- As soon as the sensor comes in contact with the petroleum product the **control beep** will change for a **continuous beep**. Raise the sensing probe again until the continuous beep stops and lower the sensing probe again slowly until the continuous beep is heard again. Now the ullage level can be read against the ullage reference. If the zero-ullage reference does not correspond to the reading index of the instrument, a correction has to be made accordingly.
- Lower the sensing probe further until the sensor touches the oil-water interface. As soon as the sensor comes in contact with water the **continuous beep** will change for an **intermittent beep**. The difference between the ullage reading and the interface reading represents the thickness of the product layer.

1.3.3 Temperature measurement

- When the desired temperature ullage level is reached, joggle the sensing probe approximately 300 mm (1 foot) above and below the desired measurement level until the displayed temperature reading settles. For heavy crude oils which have a low thermal conductivity and a viscous nature, the joggling procedure is a necessity to assure an accurate temperature reading in a minimum amount of time.

1.3.4 Rewinding of the tape

- When the measurements are completed, switch off the unit, turn the tape cleaner on “UP” position and wind up the tape until the sensing probe is in the storage tube. The reading on the tape shall be less than 420 mm or 1 ft 5 inch.
- Close the valve and disconnect the instrument from the nipple.
- Put the end cap back on the valve.

Do not use any tool to activate the crank handle. In case of abnormal effort required, identify its cause and solve the problem. See section 11.8 of the Product Service & Operation Manual.

Do not activate the crank handle too fast, specifically during the rewinding operation. This may generate a rocking of the sensor and some damage (sensor / tape) in case of chocs onto the tank structure.

1.4 Care after gauging campaign

- Clean the instrument of any excess of liquid after use. Remove the housing lid and clean the tape housing. This cleaning must be done very properly, in particular when corrosive liquids are gauged.
- Check the tightness of the reading index screws and if necessary adjust the level, refer to the Operation & Service Manual of the product.
- Check periodically (at least every 6 months) the continuity of grounding by measuring the electrical resistance between the tape adaptor (or the sensing probe tube) and the quick connect coupler. Resistance should not exceed 10Ω.
- Periodically clean carefully the sensor probe, the tape housing and the mechanical parts, as storage tube, tape, with an appropriate solvent.

Note: always reassemble the storage tube to the housing in the vertical position to allow the O-ring to seat properly in the tube.

- Check periodically the condition of the tape cleaner.
- With such conductive liquids which form salts when drying, wash the sensing probe with water or alcohol and brush it very gently with a soft brush to prevent a water detection error due to a short-circuit between the electrode and the tube.

1.5 Storage

- Make sure that the sensing probe is completely stored in the storage tube after use (reading index shall indicate less than 420 mm or 1 ft 5 "),
- Clean the devices after use,
- Remove batteries for prolonged storage,
- Store batteries in a dry and cold location,
- Store the goods in a safe, dry and dust free location with an ambient temperature between +5°C to +45°C.

For further and complete recommendation for a proper use of HERMetic devices, please refer to its Operation & Service Manual.