



Digital Fluid-Trac® Troubleshooting Guide

Measurement Technology

The Digital Fluid-Trac® model DFT drum level gauge uses ultrasonic technology to generate a high-frequency sound wave and measures the time for the echo to reflect off the target fluid's surface and return.

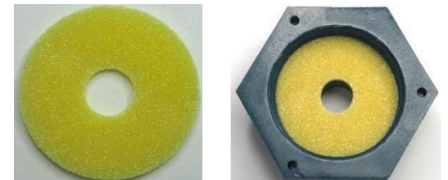
The distance from the Digital Fluid-Trac® sensor to the liquid is calculated based on the speed of sound. The Digital Fluid-Trac® model DFT is factory programmed to work on ANSI MH2 standard 55 gallon, 30 gallon, or 15 gallon drums.

Note: The Digital Fluid-Trac® is NOT intended for use with gasoline or other volatile liquids that produce a vapor pressure under normal operating temperature (0 °C - 50 °C).

Troubleshooting

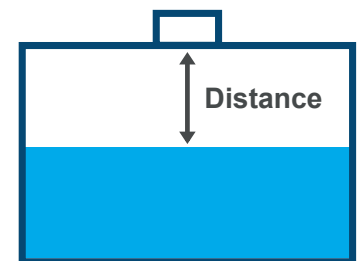
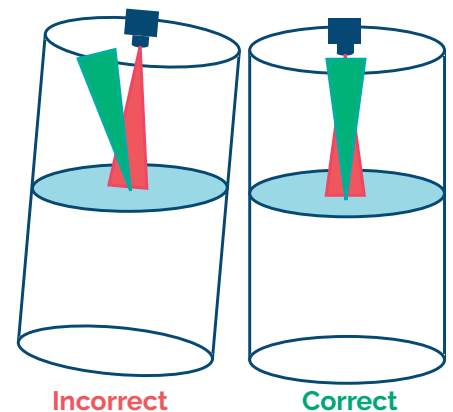
For correct operation, the Digital Fluid-Trac® DFT must be mounted properly with no obstructions between the sensor and media being monitored.

1. If using the ¾" adapter, verify the yellow acoustic absorber disc (see photo to the right) is properly installed inside the adapter.



A level sensor that is mounted or sitting other than level will create a reduction in sensor performance. As shown in the illustration to the right, the amount of returned sound energy is dependent on mounting and/or sitting angle.

2. Verify the Digital Fluid-Trac® DFT mounting is parallel to the liquid. The drum must be stored in an upright position. Ensure that barrel lid is not extremely warped, creating an unlevel condition.
3. Verify there are no obstructions between the sensor head and the media being measured. If something is between the sensor and the media being tested, the sound wave will be reflected off the object and not the media resulting in incorrect level readings.
4. Verify the unit is set to measure 55 gallon drums.
 - Place the Digital Fluid-Trac® flat on a table top.
 - Press the Refresh/Select button.
 - The display should read 55 gallons (± 4 gallons, depending on which adaptor(s) being used).



5. If the display doesn't show 55 gallons, you will have to place the unit into the 55-gallon drum mode. Refer to "Measurement Mode Selection" procedure below.

Measurement Mode Selection

- a) Enter the Select Mode: Press and hold the Refresh/Select button down for 7 seconds. The display will show "Liter/Gallon" and flash (units mode).
 - b) Release the Refresh/Select button and then press and hold for 7 seconds to select liters or gallons. The chosen setting will be displayed and the barrel volume will begin to flash (volume mode).
 - c) Press and release the button to scroll through the other settings until desired mode is flashing. For gallons setting – 55, 30, or 15 gallons can be selected. For Liter setting – 208, 114, or 57 liters can be selected.
 - d) Press and hold the Refresh/Select button for 5 seconds to select the desired volume setting.
 - e) After desired volume mode stops flashing, release the button. The unit will then go back into level monitoring mode.
 - f) The level reading can be refreshed by momentarily pressing the Refresh / Select button. The back light will light up and will be on for 15 seconds. When the back light shuts off, the level reading will be displayed.
6. If the previous four conditions are met, perform the following bench test. Note that current output(mA) is specific to the DFT-200 series barrel gauge.

Simulate a Full (55 gallons / 20 mA) Reading

- a) Place the Digital Fluid-Trac® flat on a table top.
- b) Press the Refresh/Select button.
- c) The display should read 55 gallons (± 4 gallons) or 20 mA (± 1.2 mA), depending on which output and adaptor(s) being used.

Simulate a Full (35 gallons / 14.2 mA) Reading

- a) Place the Digital Fluid-Trac® 12 inches above the table top. Make sure the bottom of the sensor is perpendicular to the table top.
- b) Press the Refresh/Select button.
- c) The display should read approximately 35 gallons or 14.2 mA depending on output type.

Simulate an Empty (0 gallons / 4 mA) Reading

- a) Place the Digital Fluid-Trac® 32 inches above the table top. Make sure the sensor is level with the table top.
- b) Press the Refresh/Select button.
- c) The display should read approximately 0 gallons or 4 mA, depending on output type.

7. For DFT 200 series only (DFT-200, DFT-210, DFT-220)

Simulate a Full (55 gallons / 20 mA) Reading

- a) If cable is connected in back of unit, but backlight is off, it indicates loss of power or ground from power supply. Display may have erroneous reading during this condition.
- b) When using batteries “REFRESH/SELECT” button must be pushed to update unit to current barrel level reading.

Contact

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