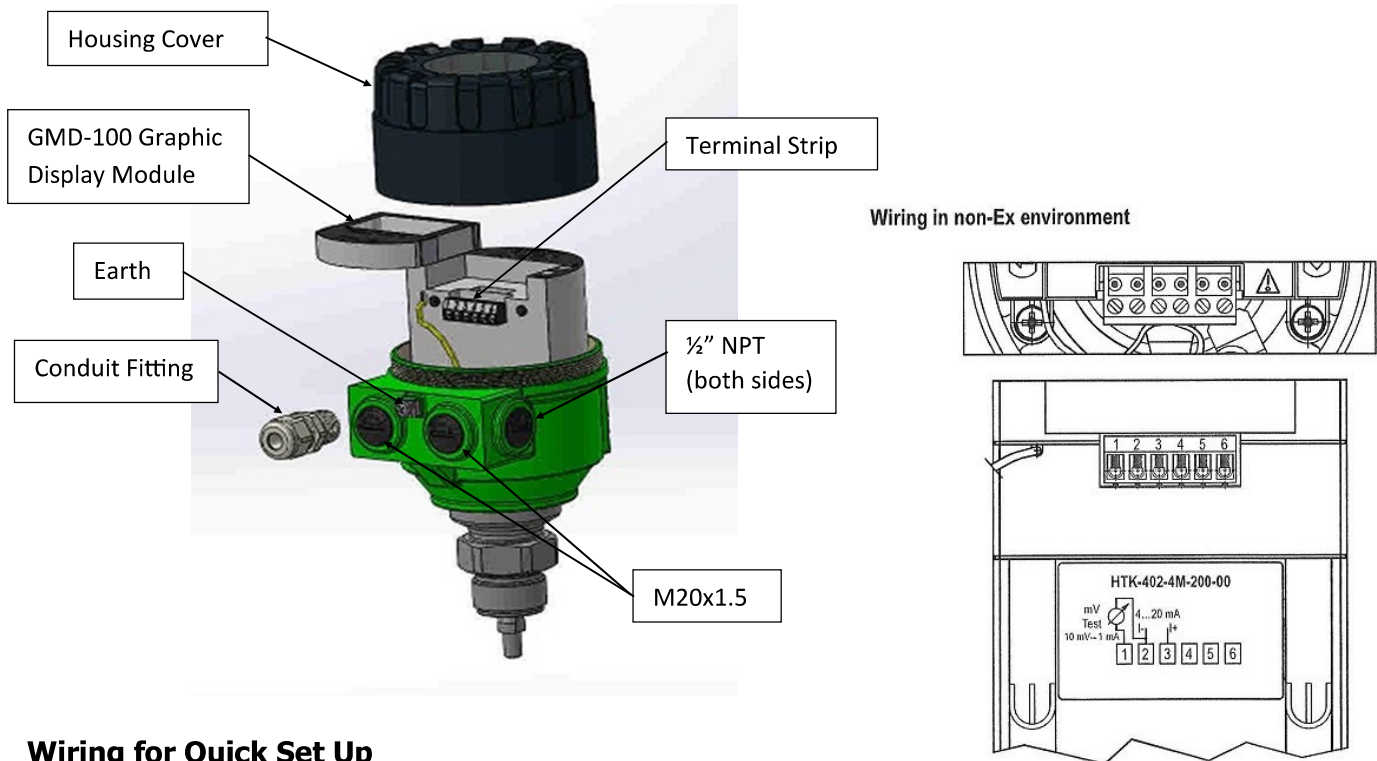


## Radar Level Transmitter RLI-G Quick Set-up Guide



### Wiring for Quick Set Up

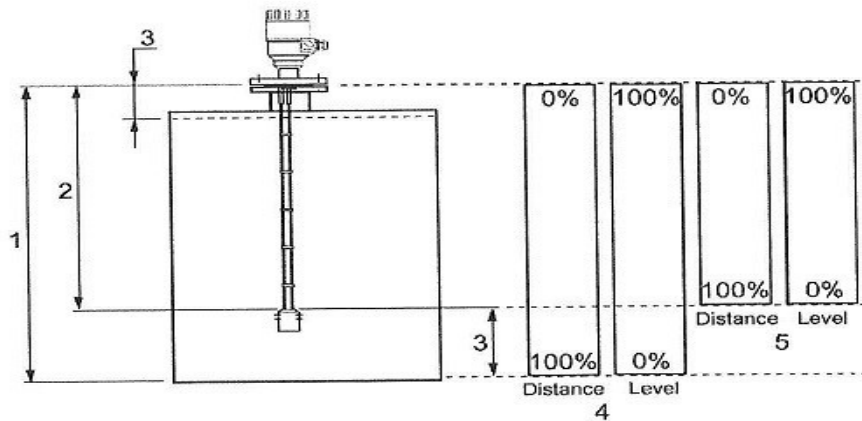
**Note: Typical wiring for direct 4-20mA, Power Supply with DPC-50 or DPC-55 HART Modem.**

1. Remove the top housing cover of the unit.
2. If unit is supplied with the GMD-100 Graphic Module Display, carefully remove module from head unit to expose the screws on top of the 6-slot terminal strip.
3. Attach a conduit fitting/strain relief to one of the 4 ports on the housing and insert wire/cable connections through. Choice of 1/2" NPT or M20x1.5 ports.
4. Attach positive lead (+) to #3 slot in terminal strip and common lead (-) to #2 slot in terminal strip.
5. Replace the GMD-100 Graphic Module Display and housing cover and tighten.
6. Ground the housing using the 4mm screw type terminal on the front of the housing (grounding resistance,  $R < 1 \text{ Ohm}$ ). Cable shielding should be grounded at the control room.
7. Cable should be located away from any power cabling to avoid electrical noise.

### GEMS Detector Level Transmitter Factory Default Settings:

1. Tank Height= 0 inches (must be configured by customer)
2. Active probe length= measured from bottom of instrument process connection to tip of probe (top of probe weight if probe is flexible cable style).
3. Dead zone/Detection Delay= per probe standard.
4. Measuring Mode= Level, Units= English, inches

5. 4 mA= 0% level, 20 mA= 100% level less dead zone in inches
6. Error indication default (failure current) = hold the last measured value



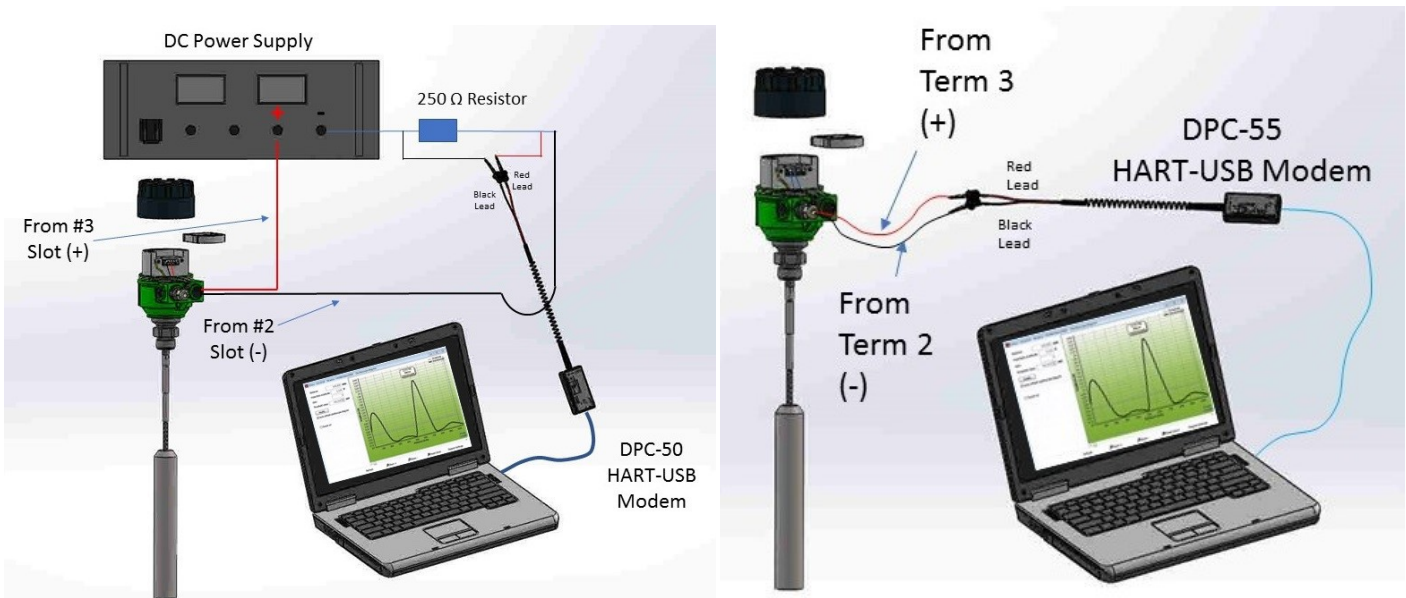
### **Quick Set Up Using GemsView software (Free Download)**

Tools required:

250-ohm resistor, HART-USB modem, PC with available USB port, GemsView software

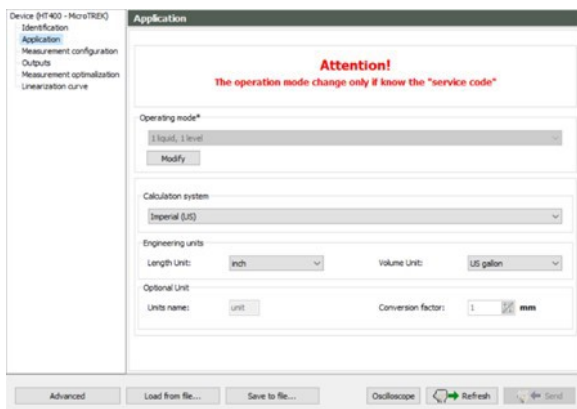
GemsView software is designed for detection, polling and displaying primary measurement data as well as remote programming the RLI-G HART capable radar level transmitter. Communication during programming is via HART digital protocol and requires the use of a HART capable modem. Use of GemsView software makes programming of configuration parameters easy and quick, as well as providing a visual representation of key settings. Besides offering remote configuration capability, GemsView provides the user diagnostic capabilities, trend monitoring, linearization table entry, and output polling. This quick set up guide will address basic configuration for one device only.

Wiring examples:

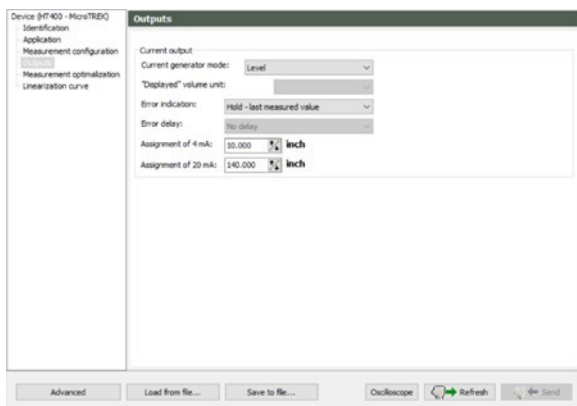


1. Wire transmitter according to quick set up wiring instructions. Add 250-ohm resistor to wiring loop and connect modem to each pole of resistor. Connect modem to port on computer. Prior to using GemsView software, it is recommended installing the FTDI Driver (Virtual COM-PORT) on the PC. FTDI Driver is available for download from the FTDI website (<http://www.ftdichip.com/VCP.htm>). This must be done prior to running GemsView application on the PC. GemsView does not require installation.

- Download GemsView software from (TBD) and run the application on the PC. Start GemsView by running the GemsView.exe file or by double clicking on the desktop shortcut.
  - Select "Add Network" button near the upper left corner of the screen. A network selection window will appear. Select the comport for the device modem and click "OK". If there are other transmitters and/or networks, click again on the "Add Networks" button to add further current loops and devices to the node list. Switching between multiple nodes/loops can be accomplished by clicking on the tab for each node. If using the DPC-55 HART-modem, be sure to turn the power to the modem on as well as the 250 Ohm resistor.
  - Click "Detect" to search for a device. A "Scanning Network" screen will appear that indicates the status of the device search. When a device is found, it will be added to the device list under each node.
  - Preconfigured units will be ready to run once "Scanning Network" has completed. Select the device from the list, then select "Polling" and units will begin to register results.
- Double click the "Device Settings" tab next to the "Polling" tab at the top to open the 'Device' window. Select 'Identification' from upper left-hand menu. HART polling address can be changed (necessary if there is more than one transmitter in the instrument loop), as well as instrument tag and descriptor.



- From the navigation pane, select 'Application'. In the Application menu, verify the desired calculation system (EU for metric units, US for English units) and the desired measuring unit (meters, centimeters, millimeters, feet, or inches). Factory default setting will be 'Imperial (US)' and 'Inches'. Volume unit can also be selected. Click 'Send' button in the lower right-hand corner to save changes to the device.

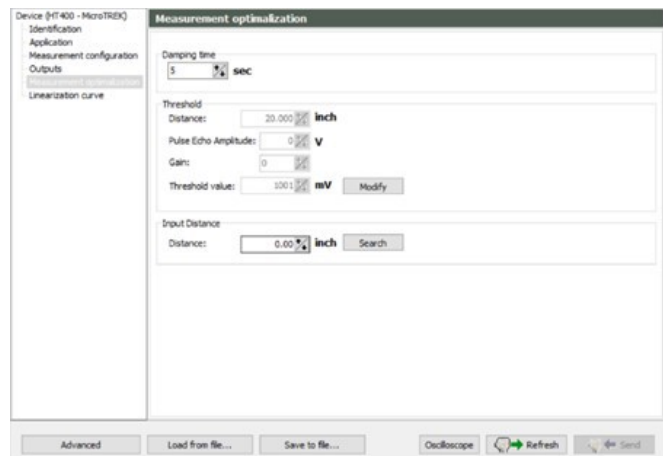
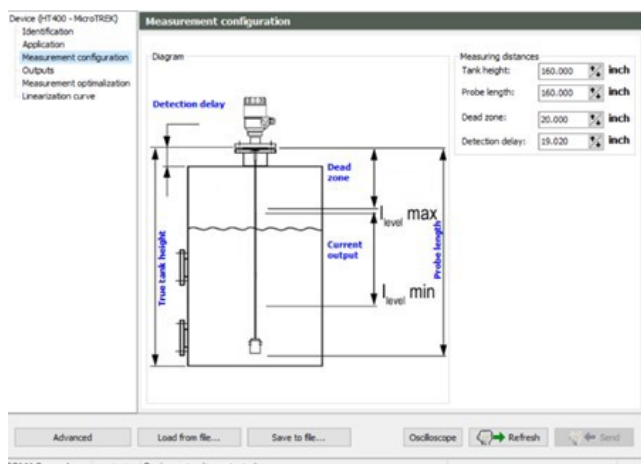


- Select 'Measurement Configuration' from the left hand menu. In this menu, tank height (vessel height from process connection to bottom of vessel), probe length, dead zone, and detection delay can be configured. Make configuration choices, then save any changes by clicking 'Send'.

- Select 'Outputs' from the left hand menu. Choose desired mode (level, distance, volume or ullage volume), error indication from the drop down choices (Hold last measured value, 22 mA). Enter desired 4 mA and 20 mA settings. Save any changes by clicking 'Send' after all configuration changes to Output menu have been made.

- Select 'Measurement Optimization' from the left hand menu. Change damping time if needed. This is the only recommended change to this menu for basic configuration. Click 'Send' after making changes.

- Basic configuration will be complete. Review configuration settings Close remote configuration window, confirm that settings can be saved to the device, then close GemsView software.



COM4 Opened. IDLE Device not write protected.