

1. Before You Begin

This guide provides basic information to assist you in getting started. Go to support.oleumtech.com to download the full User Guide for detailed installation and other information.



WARNING!

Ensure installation of the transmitter meets applicable state and national electrical code requirements. The installation of the transmitter should only be performed by a qualified installer or a factory representative.

Explosion Hazard – substitution of components may impair Intrinsic Safety.

Use only the SX1000-BP3 Battery Pack.

To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.

To prevent static discharge, wipe with damp cloth only.

Although the transmitter is very durable, do not install it on high vibration applications or where transmitter is subject to severe mechanical shock.

Disconnect the battery when the device is not in use.

2. Required Items

- WT Series Wireless Resistive Level Transmitter
- SX1000-BP3 Battery Pack (supplied with the transmitter)
- Resistive Level Sensor (sold separately)
- Sensor float(s)
- A proper-size bushing
- All-in-One Configuration Cable (SX1000-CC2)
- OTC Wireless Gateway (fully set up)
- Technician's screwdriver (flathead)
- Industrial-grade thread sealant or tape
- Screwdriver set
- Adjustable wrench
- 10 mm hex wrench for 3/4" NPT plug removal
- Any other tools or equipment for proper installation
- PC with:

Latest BreeZ® Configuration Software installed
Microsoft Windows® 7 or later
1 GHz or faster processor
1 GB or more RAM
500 MB Hard Disk Space or more
USB or Serial port

3. Create a Project File Using BreeZ®

1. Run the BreeZ Software on the PC.
2. Use the project creation wizard to build a project file.
 - a. Configure the RF network settings.
 - b. Add and configure a primary wireless gateway.
 - c. Add and configure a Resistive Transmitter - WT Series.
 - d. Open Edit Templates window to add register tags to the Modbus table.

REGISTER TAG	DESCRIPTION
Product Level	Last read of the product level. This is the reading between the first (top) float to the bottom of the tank.
Interface Level	For dual-float level sensors, this reading is between the second (bottom) float and the bottom of the tank. For single-float level sensors, this reading is not used.
Average Temperature	Average temperature from last reading of the leve sensor.
DIN1	Last known state
DIN1 Count	Counts the number of times the state changes
Battery Voltage	≥ 2.9 V is good, otherwise replace
RF Timeout	0 = OK; 1 = RF Failure
RSSI Value	Excellent RF = 40-75; Good = 76-90; Poor 91-115; None = 0
RF Refresh	0 to 65,535
Firmware Version	Indicates the firmware version of the device

Only the common tags are shown. See User Guide for entire register tag table.

6-pin transmitters only work with 6-pin sensors.

8-pin transmitters only work with 8-pin sensors.



The sensor model and length must be configured correctly to output correct measurement.

3. Select the single or dual-float mode of operation.
4. Select the level sensor model (use the table below to find number).
Reference the information etched on the sensor.
5. Enter level sensor length.

Transmitter	Sensor (XXX = Length in Inches)
WT-LL3 / WT-LL3-D	60-4001-XXX, 1/2" Rigid, 6-pin
	60-4101-XXX, 1/2" Flex, 6-pin
WT-LL3-T / WT-LL3-DT	60-4002-XXX, 1/4" Rigid, 8-pin
	60-4102-XXX, 1/4" Flex, 8-pin

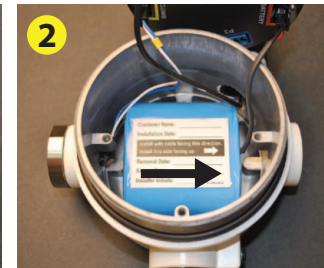


Must calibrate the sensor after installation.

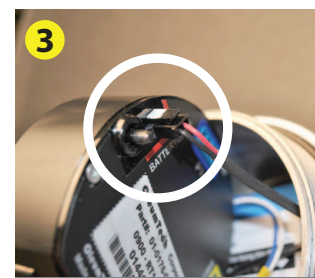
4. Battery Installation



Remove the enclosure cover and detach the LCD Module secured by the screws.



Insert the Battery Pack with the label facing up and arrow pointing to the right.



Connect the battery to the battery terminal on the LCD Module.



Program the transmitter using the PC or through the LCD interface.



Tighten the enclosure cover by hand only.



WARNING

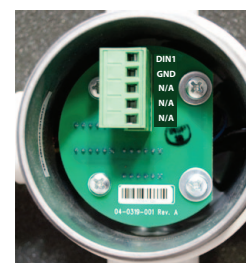
The LCD Module MUST be fully seated and fastened securely BEFORE tightening the enclosure cover.

Tighten the cover(s) only by hand. DO NOT use any tools.

Replace the battery if:

- a. Nothing appears on the LCD screen after plugging in the battery.
- b. Battery level ≤ 2.9 Vdc.
- c. ONLY use Battery Pack SX1000-BP3.


5. Discrete Input Wiring Table



Only available on WT-LL3-D and WT-LL3-DT options with a discrete input.

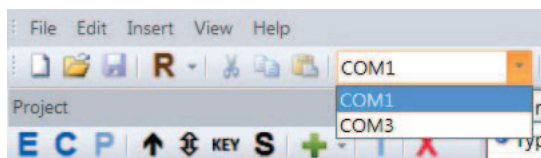
Terminal	Connection
1	DIN1
2	GND
3	N/A
4	N/A
5	N/A

6. Setup the Wireless Gateway

1. Refer to the instructions provided on the QSG or User Guide of the specific wireless gateway.
2. Supply power to the gateway.
3. Connect the PC to the gateway.
4. Click on the gateway in the BreeZ project tree.
5. Click  the update device button on the toolbar.


7. Setup the COM Port

1. Connect the Battery Pack to the transmitter.
2. Connect the PC to the transmitter.
3. Select the correct COM port in the software.



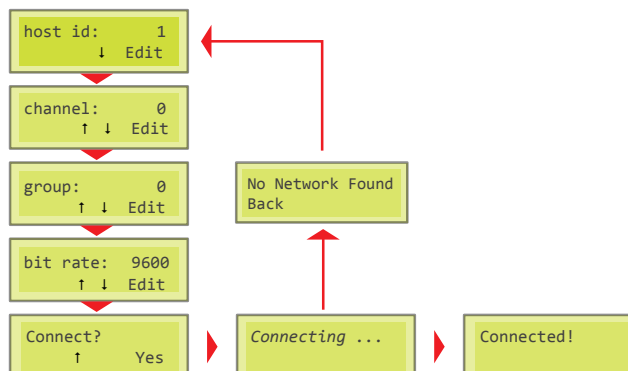
You may need to check the “Device Manager” on the PC to identify the correct COM Port.

8. Program the Transmitter with the PC

1. Connect the Battery Pack to the transmitter.
2. Connect the PC to the transmitter.
3. Click on the transmitter in the project tree.
4. Click  the update device button in the BreeZ toolbar.

9. Connect to the RF Network Using the LCD

1. Obtain the device’s RF network information from BreeZ.
To get the **host id**, double-click on the device in the project tree.
To get the **channel**, **group**, and **bit rate**, double-click on site in the project tree.
2. Press any button to activate the LCD screen.
3. Enter the device’s RF network information to connect to the gateway.

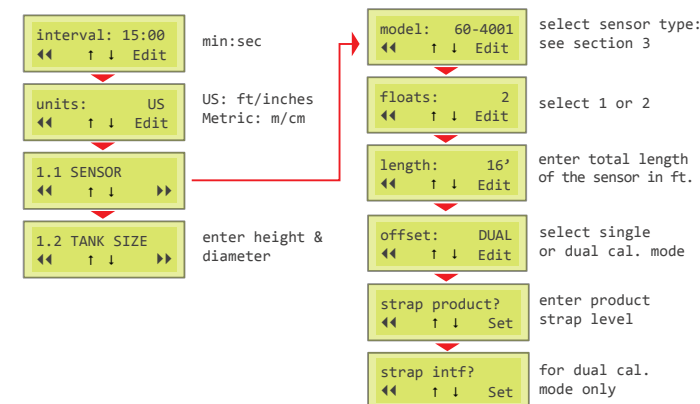


10. Setup the Transmitter Using the LCD

1. Press and hold the **F2** key until **CONFIG** appears on the LCD.



2. Use the function keys to edit the device settings.



11. Installation Best Practices

1. Follow your organization’s best grounding practices.
2. Always install the transmitter in the upright position so that the antenna pole is correctly oriented.
3. When possible, have at least 10 ft of ground clearance for optimal RF performance.
4. Have at least 10 ft of vertical separation with other antennas.
5. Be sure to tightly seal all orifices using industrial-grade thread sealant or tape.
6. Tighten enclosure cover and quick connect fitting by hand only.
7. Face the LCD away from the sun when possible for better visibility.