WiNG-DI, WiNG-THRM, and WiNG-ANLG Quick Start Guide

Thank you for purchasing a WiNG wireless sensor. Before you install your device, consult rletech.com to ensure you're working with the most recent version of documentation available. If you need further assistance, please contact RLE Technologies at support@rletech.com.

Falcon

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RLE Technologies

Supplies for Installation

Included with the WiNG Sensor
WiNG-DI, WiNG-THRM, or WiNG-ANLG transmitter
Wall mounting hardware

Additional materials, sold separately per application
Device providing analog input
Device providing digital input
Thermistor

Installation Instructions

1. The WiNG-DI, WiNG-THRM, and WiNG-ANLG sensors can only be seen by a WiNG-MGR running firmware version 3.3.2 or newer. Access the Admin screen of the WiNG-MGR and navigate to the Firmware tab to see what version of firmware it's running. If the firmware is older than version 3.3.2, download the latest firmware from the RLE website (rletech.com) and update the firmware on the WiNG-MGR.

2. Remove the lid from the sensor enclosure. The lid has one large tab at the top and two small tabs at the bottom that secure it to the sensor base. Squeeze the top of the lid to release the large tab. Pivot the top of lid out from the base and gently separate the two bottom tabs from the base.

   NOTE: The serial number is printed on a white label on the outside of the sensor lid. The serial number on this label is unique to each sensor and you will need to refer to this number throughout the life span of the device.

3. Remove the circuit board from the base to expose the mounting holes. Before you take it apart examine how the board fits into the base. You'll have to put it back into the base so make sure you have a clear understanding of how it was assembled before you remove it.

4. To remove the board pull the circuit board clip out to relieve the tension that holds the board in place. Angle the board up and then pull it to the right to remove it from the base. Move the board slowly and gently to get it out of the base without damaging any circuitry.

5. For best reception, mount the enclosure base as high off the floor as you can with the most direct/clear line of sight to the WiNG-MGR possible. Do not mount the transmitter behind metal objects. Use the provided hardware to secure the base in the desired location.

6. Put the circuit board back into the enclosure. There are two "L" shaped brackets along the left side of the enclosure. Angle the board in under the lip of these L brackets and as far down as it will go against the plastic pegs at the bottom of the enclosure. Guide the board so it is parallel with the base. Pull the circuit board clip out and push the board down until the circuit board clip snaps into place and secures the board. The board is a very tight fit in the enclosure. Work slowly and gently so the board is secured by the enclosure and doesn't get damaged in the process.

7. Remove the clear pull tab to engage the battery. Verify the LED is blinking blue. The light blinks randomly every 10-20 seconds.

8. Check the WiNG-MGR web interface and verify the sensor appears in the list of sensors connected to the WiNG-MGR. You may need to click the Sensor Discovery button in the WiNG-MGR web interface to allow the unit to find this new sensor.

9. If you are installing a WiNG-DI sensor:
   Connect your digital input to the transmitter. Insert the two stripped wires into the 2-pin terminal block connector (TB1) - positive wire into the left terminal, negative into the right. Tighten the screws on the terminal block connector to secure the leads.

   Access the individual sensor's configuration page in the WiNG-MGR UI and set the alarm conditions for the sensor. By default, the settings are configured for a normally open (NO) digital input - when active, the sensor will alarm. If the sensor is normally closed (NC) change the setting so it will alarm when the input is inactive.

10. If you are installing a WiNG-THRM sensor:
    Connect your thermistor to the transmitter. Insert the two stripped wires into the 2-pin terminal block connector (TB2) - positive wire into the left terminal, negative into the right. Tighten the screws on the terminal block connector to secure the leads.

11. If you are installing a WiNG-ANLG sensor:
Connect your analog input to the transmitter. Insert the two stripped wires into the 2-pin terminal block connector (TB3) - positive wire into the left terminal, negative into the right. Tighten the screws on the terminal block connector to secure the leads.

Set the jumpers accordingly. By default, the sensor is configured for a 4-20mA analog input - jumpers on pairs 2 and 5. If your input is 0-5V, place the jumpers on pairs 1 and 3. If your input is 0-10V, place the jumpers on pairs 1 and 4.

Analog Input Type Selection

4-20mA

0-5V

0-10V

Jumper pairs: 1 2 3 4 5

Access the individual sensor's configuration page in the WiNG-MGR UI and set the gain and offset for the sensor:

For 4-20mA sensors:

Gain = (Sensor high range value – sensor low range value) ÷ 3085

Offset = Sensor low range – ((Sensor high range value – sensor low range value) ÷ 4)

Example: Temperature sensor with a sensing range of 5-120°F

Gain = (120 - 5) ÷ 3085 = 0.0373

Offset = 5 - ((120-5) ÷ 4) = -23.75

For 0-5V and 0-10V sensors:

Gain = (Sensor high range value – sensor low range value) ÷ 3856

Offset = Sensor low range

Example: Temperature sensor with a sensing range of 5-120°F

Gain = (120 - 5) ÷ 3856 = 0.0298

Offset = 5

10. Check the WiNG-MGR web interface to make sure the sensor status reports accurately.

11. Replace the lid, ensuring that the antenna is held in place by the antenna guides and feeds out the vent hole in the side of the enclosure. Do not pinch the antenna between the lid and the case.