

REDLINE INSTRUMENTS  
 RL102 LEL  
 WIRELESS or 4-20mA

The RL102 LEL HEAD unit senses combustible gas, using a catalytic bead (pellistor) sensor. The %LEL can be transmitted with 4-20mA current or by the Redline radio link.

There are four pushbuttons on the RL102:

1. MENU in the upper left corner, used for setup.
2. UP in the upper right corner, to increase a setting.
3. DN in the lower right corner, to decrease a setting.
4. TEST in the lower left corner, to go to parameters.

The Menu, Test, Up and DN functions may be activated by manually pressing the pushbuttons or by using a magnet for nonintrusive calibration and configuration.

There are three menu steps:

1. Normal Operation
2. NULL. Set the amplifiers to zero.
3. CAL. Calibrate the amplifiers.

1. Normal Operation

The system measures the level of gas and outputs a current proportional to the level of gas:  
 4mA = 0% LEL; 20mA = 100% LEL.

2. NULL. Set the amplifiers to zero.

Press Menu for Null mode. "NUL" will flash in the display. Press DN to remove a background reading. The output is set to 3mA when in Null mode.

3. CAL. Calibrate the amplifiers.

Press Menu for Cal mode. "CAL" will flash in the display. Add calibration gas; use UP or DN to adjust the reading until it equals the desired value. The output is set to 2mA when in Cal mode.

Press Menu to return to Normal Operation.

There are seven parameter menu steps for Wireless:  
 Press TEST to adjust parameters.  
 Use UP and DN to adjust.

1. Set Radio address
2. Set background level for rapid messaging
3. Adjust LO alarm setpoint
4. Adjust HI alarm setpoint
5. Displays Firmware revision
6. Relay Test
7. Signal Strength Test

1. Set Radio address

'Adr' and the radio address are shown in the display.

2. Set background level for rapid messaging

'brd' and the background value are shown in the display.

3. Adjust LO alarm setpoint

'Lo' and the Lo alarm set point are shown in the display. The LO alarm light will blink.

4. Adjust HI alarm setpoint

'Hi' and the Hi alarm set point are shown in the display. The HI alarm light will blink.

5. Displays Firmware revision

(This value is not adjustable)

6. Relay Test

'rEL' and an LEL value are shown in the display.

Use UP and DN to change the LEL value (by 5). A radio message is sent when the LEL value is changed. This test will verify communications with the Monitor.

7. Signal Strength Test

'rln' and the Signal strength value are shown in the display. The RL102 sends a message each second and waits for a return message from the Monitor. Then the signal strength measured and displayed.

When power is first applied, the system displays:

1. Type of gas it will sense, such as LEL
2. Radio Address ('Adr' / #) for wireless
3. Firmware revision
4. Counts up to 30 seconds
5. Goes to the normal operating mode

The RL102 system is powered by a 12V-24Vdc input.

