RC SYSTEMS
"The Art of Gas Detection"

SenSmart 6000

Installation Guide

Flammable & Toxic Gas Detectors
Smart Alarm Controllers
Fire & Gas System Engineering
Technical Service & Support

Warning: Read & understand contents of this manual prior to operation. Failure to do so could result in serious injury or death.

GETTING STARTED

Gas Detector Installation and Power-up

1 Installation of Gas Detector

A. Mount the Gas Detector in desired location.
(see figure 1 for mounting dimensions.)

B. Remove windowed lid from unit.
1. AL Enclosure unscrew lid and remove thumbscrew to access terminals
2. PY Enclosure - unscrew (4) lid screws to access terminals

C. Remove thumb screws and pull display to the side. (Aluminum Enclosure)

2

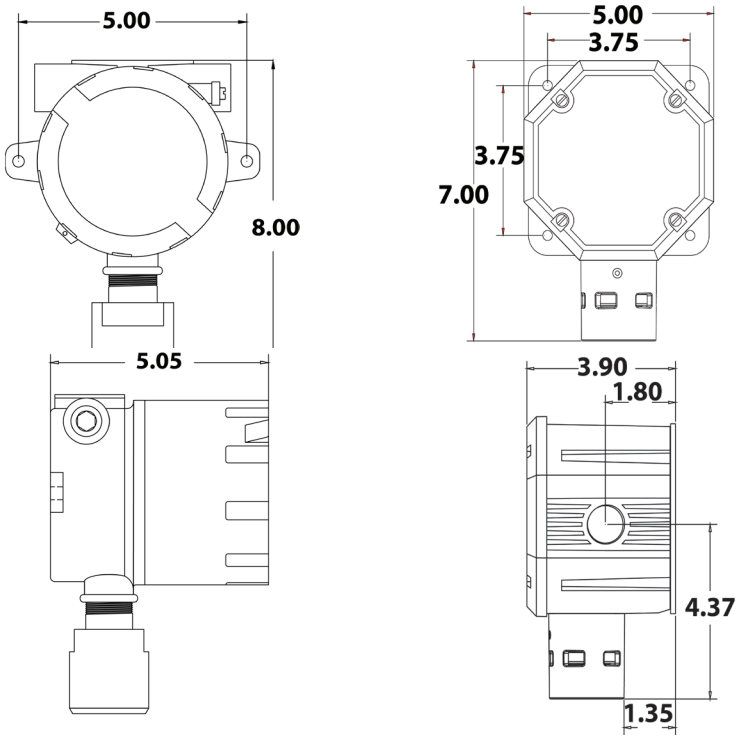
A. Connect 10-30VDC power lead to TB1.1
(See Figure 2)

B. Connect Common lead to TB1.4
(See Figure 2)

C. Connect signal lead to TB1.2 (Channel 1) and/or TB1.3 (Channel 2) (4-20mA Out)
(See Figure 2)

D. Connect Ethernet cable to J3 (Ethernet output)
(See Figure 2) (optional)
(By default, DHCP is enabled on the transmitter, allowingthe device to be discovered by its IP address.)

Figure 1 - mounting dimensions



Aluminium

Polycarbonate

Figure 2 - SenSmart 6000 wiring

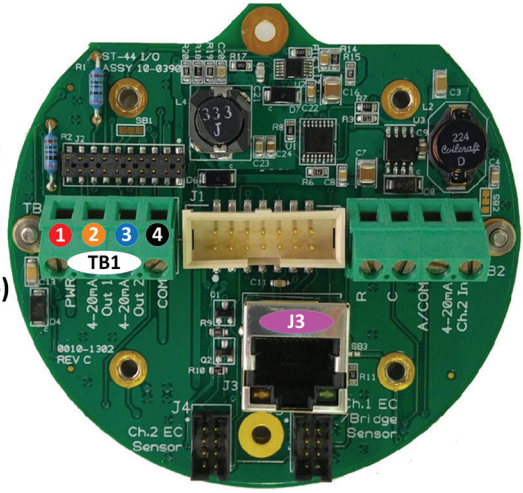
TB1.1 – 10-30VDC Positive(+)

TB1.2 – CH.1, 4-20mA Output

TB1.3 – CH.2, 4-20mA Output

TB1.4 – 10-30VDC Common (-)

J3 – Ethernet Connector



FINALIZE INSTALLATION

1

A. Replace display and tighten screws.

B. Apply power to unit and observe power up screen.

C. After the warm up period, observe gas type and gas concentration on screen.

D. Using the magnet wand, swipe Down Key on the display.

E. Swipe the Edit key to enter Cal Mode.

F. Apply a clean Zero Gas , using the Calibration Cup or be sure there is no background target gas in the monitored area. After the reading is stable, swipe the Edit key to set the Zero Calibration. To skip the Zero calibration, and go to the Span calibration, swipe the Next key. Once a message that the Zero calibration was completed successfully has been displayed, proceed to the next step.

G. Apply the correct, as indicated, span gas. After the reading is stable, swipe the Edit key to set the Span Calibration. To skip the Span Calibration, swipe the Next key. When a message that the Span Calibration was completed successfully is displayed, the gas detector will exit back to the Data Display Screen.

H. Remove the calibration gas. Once the Cal Purge Delay has expired, normal alarm and relay functionality will be restored.

10-0388 OPTIONAL RELAY/RS-485 BOARD

1

For Single Port Modbus Communications (COMM PORT 1)

A. Place J3 and J5 jumpers in position “A” (default setting). ***(See Figure 4)***
This allow for “daisy chain” wiring by tying A1 and A2, B1 and B2 together.
(Refer to Section 4.5 of Manual for comm port setup)

For Dual Port Modbus Communication

A. Place J3 and J5 jumpers in position “B”. ***(See Figure 4)***
This separates A1 and B1 form A2 and B2 Allowing for 2 configurable comm ports.
(Refer to Section 4.5 of Manual for comm port setup.)

2

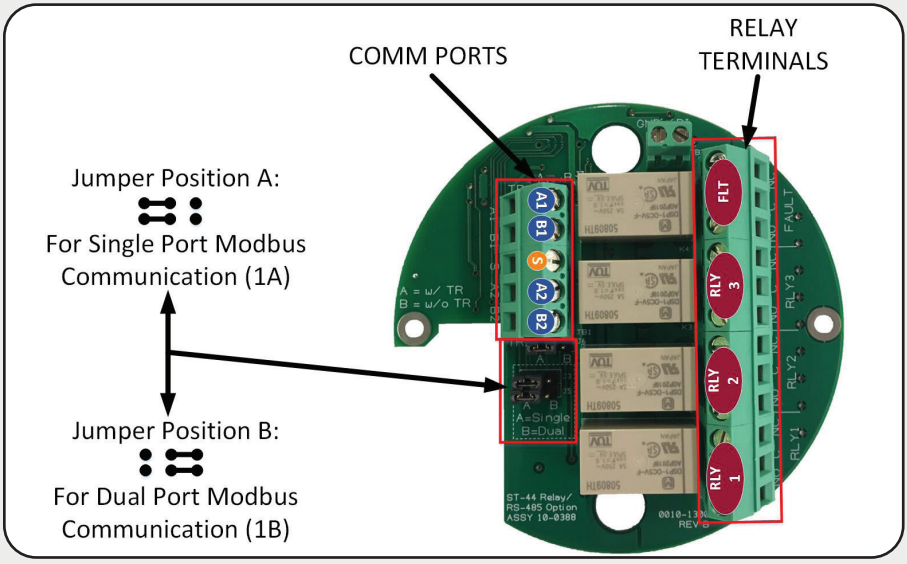
Relay Outputs

3 Programmable 5A SPDT relays (RLY 1, RLY2, RLY3).
With 1 dedicated Failsafe fault relay. ***(See Figure 4)***
All Relays are labeled:

NO = Normally Open
C = Common
NC = Normally Closed

(Refer to Section 4.3 of Manual for relay setup)

Figure 4- Sensmart 6000 RS485 Modbus/Relay Option



SPECIFICATIONS

Power Supply	10-30VDC at < 10 watts max with relay board (all relays energized) 2 watts nominal (1 EC sensor and no relays)
4-20mA Output	Dual 3-wire 4-20mA current source. Max loop Resistance 600 ohms @ 24VDC
Environmental	Operating range -40°C to +60°C Sensors include sensor heater for low temperature operation Relative humidity to 95% for IR; to 85% noncondensing when using electrochemical sensors
CSA Approvals	**Cast Aluminum Enclosure:** Explosion-Proof Cl 1 Div 1 Gr ABCD Non-Incendive Cl 1 Div 2 Gr ABCD **UL94 Poly Black Plastic Enclosure:** Non-Incendive Cl 1 Div 2 Gr ABCD
Warranty	5 year limited warranty For sensor warranty see sensor specifications sheet

R.C. Systems provides 24/7 superior technical support from experts right here in our local facility.

If you are in need of any assistance during the setup of this product, you may contact our main office and your call will be directed appropriately.

At R.C. Systems we are proud to supply quality products and are happy to help if you have any questions or concerns.

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MM-1068 Rev B

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