

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

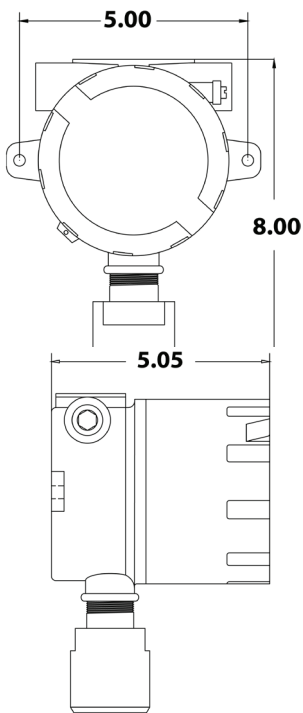
Installation of Gas Detector

- 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)

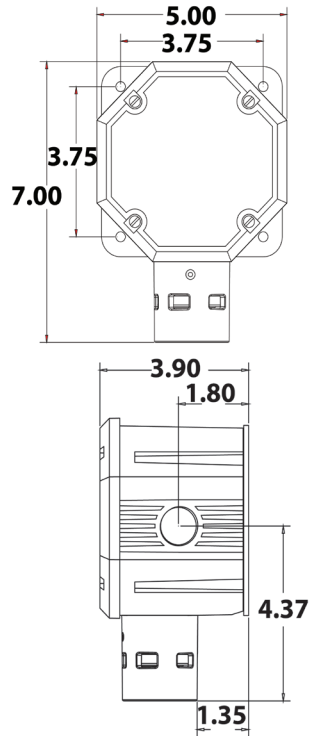
2

- A.** Connect 10-30VDC power lead to TB2.1
(See Figure 2)
- B.** Connect Common lead to TB2.3
(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, allowing the device to be discovered by its IP address.)

Figure 1 - mounting dimensions



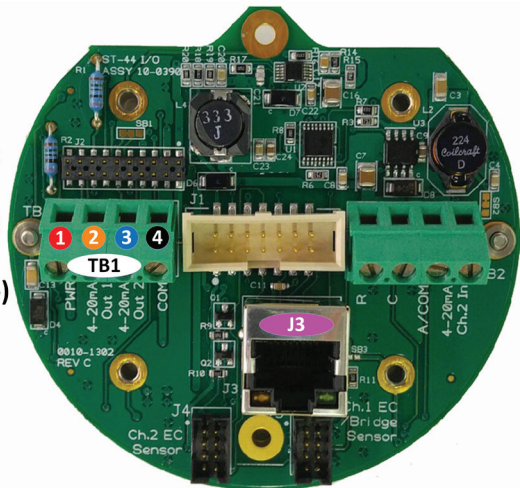
Aluminium



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. Follow on-screen prompts to perform calibration check.

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

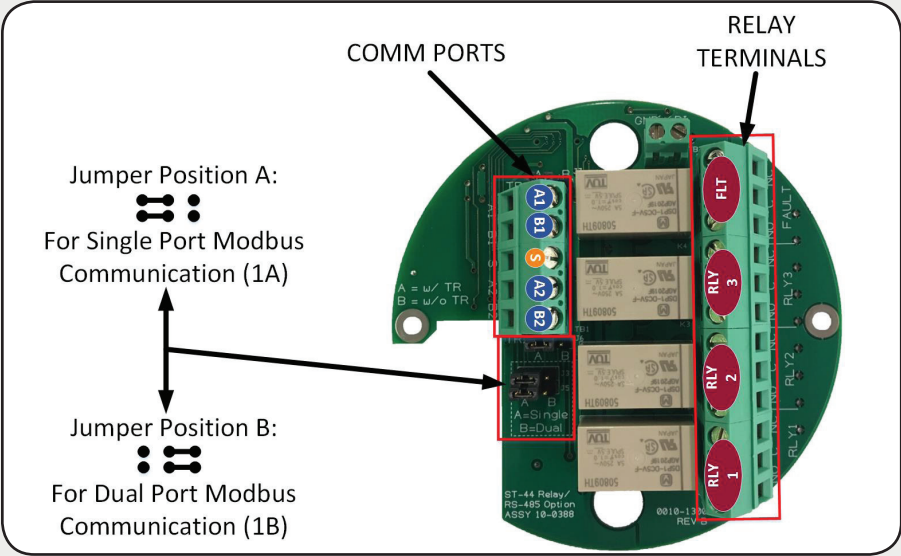
- A. Place J3 and J5 jumpers in position “B”. *(See Figure 4)*
This separates A1 and B1 form A2 and B2 Allowing for 2 configurable comm ports.
(Refer to Section 4.5 of Manual for comm port setup.)

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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