Semiconductor Refrigerant Transducer (SRT) Installation (P/N 809-3000)
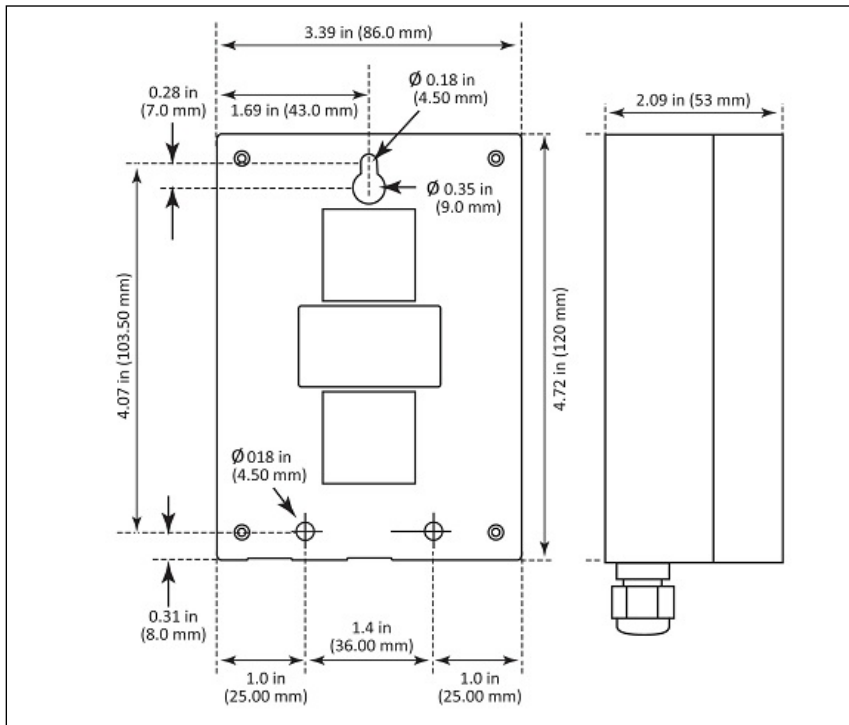
Installation Instructions
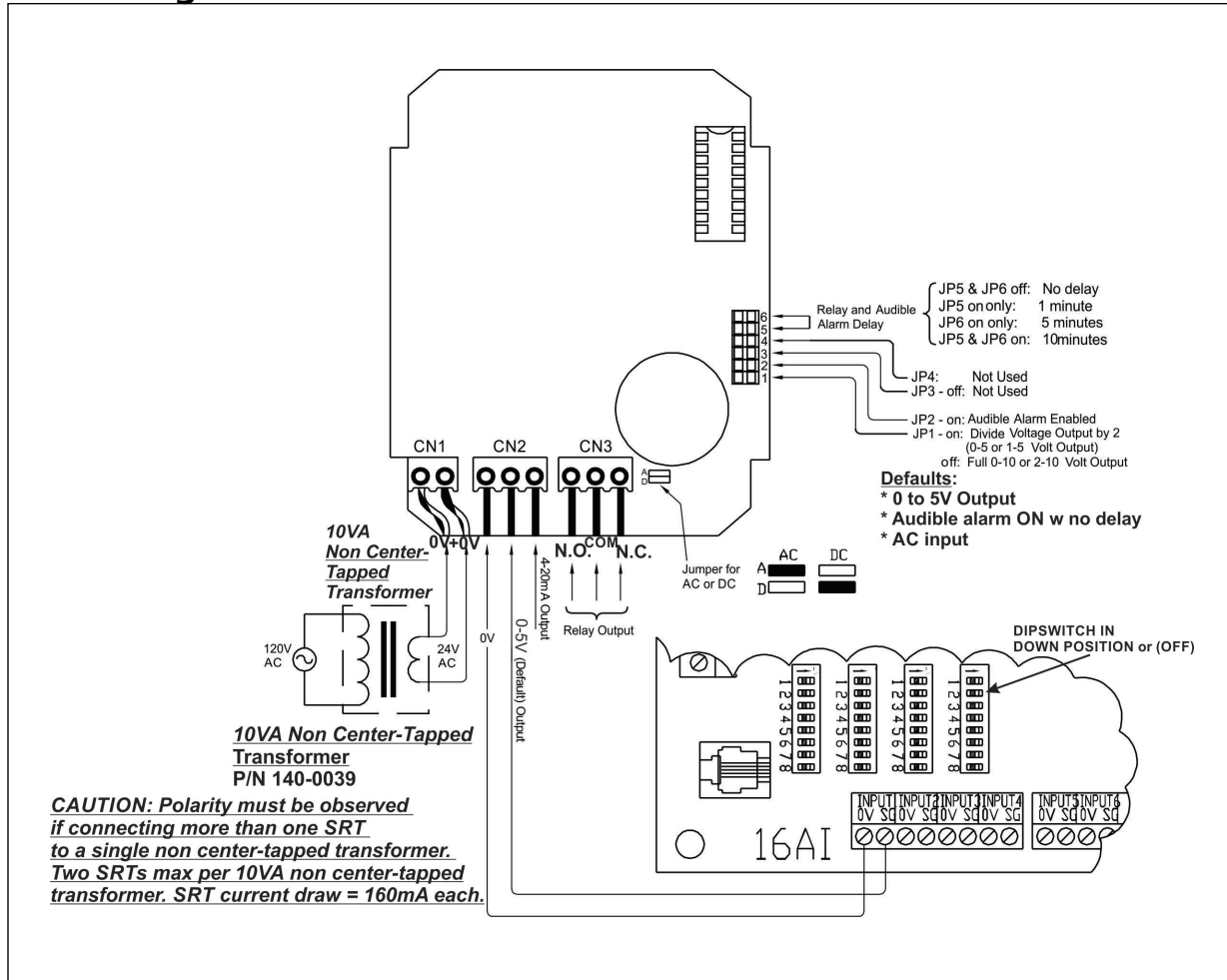
Installation Instructions

1. Mount the SRT to a flat surface using the three mounting holes provided in the back of the housing.
2. With the lid removed, wire the SRT output terminals to the control system. The voltage output terminals are located on connector **CN2**.
3. Wire 24 VAC power to connector **CN1**.
4. Replace and secure the lid onto the back of the housing.
5. Once power is applied, the sensor will enter a 5-minute warm-up delay. The sensor should stabilize in approximately 3 to 5 minutes.

SRT Housing Dimensions

SRT Wiring Terminations

JP5 & JP6 off: No delay
JP5 on only: 1 minute
JP6 on only: 5 minutes
JP5 & JP6 on: 10minutes

Relay and Audible Alarm Delay

JP4: Not Used
JP3 - off: Not Used

JP2 - on: Audible Alarm Enabled
JP1 - on: Divide Voltage Output by 2
(0-5 or 1-5 Volt Output)
off: Full 0-10 or 2-10 Volt Output

Defaults:
* 0 to 5V Output
* Audible alarm ON w no delay
* AC input

CN1 CN2 CN3

AC   DC

10VA Non Center-Tapped Transformer

0V+0V

N.O. COM N.C.

Jumper for AC or DC

120V AC   24V AC   0V   0-5V (Default) Output   4-20mA Output   Relay Output

AC
DC

DIPSWITCH IN DOWN POSITION or (OFF)

10VA Non Center-Tapped Transformer
P/N 140-0039

INPUT1 INPUT2 INPUT3 INPUT4   INPUT5 INPUT6
0V SG 0V SG 0V SG 0V SG   0V SG 0V SG

16AI

CAUTION: Polarity must be observed if connecting more than one SRT to a single non center-tapped transformer. Two SRTs max per 10VA non center-tapped transformer. SRT current draw = 160mA each.

Supported Refrigerants

Refrigerant Type	PPM
HFCs - R22, R134a, R404A, R407, R407A, R407C, R407F, R410A, R507A, R448, *R449A and HFC, CFC, and HCFC profile blends. *Reading only valid to 500ppm/50% of range.	0 to 1000
CFCs - R11, R12, and HFC, CFC, and HCFC profile blends.	0 to 1000

Technical Specifications

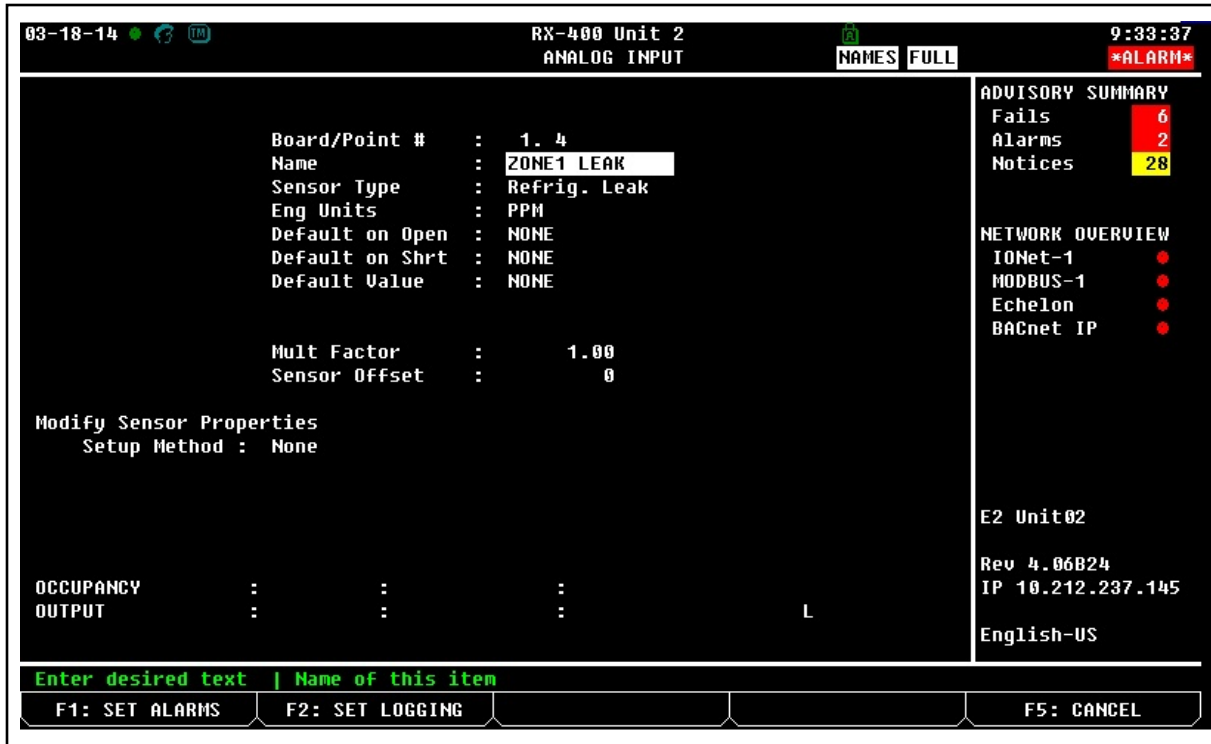| Sensor Information	Semiconductor (SC)
Temperature Range	-4°F (-20°C) to 122°F (50°C) (Stand. housing)
Humidity (non-condensing)	0-95%
Sensor Life	5-8 years, typical
Time to Alarm (T50)	20 seconds, typical
Time to Alarm (T90)	50 seconds, typical
Recovery Time	900 seconds, typical
Scaling	0-5 VDC = 0-1000 PPM

E2 Input Setup

1. Log into the E2 and press [Menu] [7 &] [1 !] (Input Summary).
2. Highlight the input point the SRT is connected to, and press [F1] (Setup).

   When prompted to select the data type, press [1 !] (Analog).

In the Analog Input setup screen, enter the following information in the fields listed below:

- **Name:** A description of the sensor's function and/or location (for example, **ZONE1 LEAK**).
- **Sensor Type:** Refrig. Leak
- **Eng Units:** PPM

For the SRT, use the default settings. The Refrigerant Leak sensor type default settings are correct for the SRT.

Press [⬭] to save changes and exit the Analog Input setup screen.

```
03-18-14  ● ⟲ ⓉⓂ              RX-400 Unit 2                      ⌨       9:33:37
                              ANALOG INPUT          NAMES FULL          *ALARM*

                                                              ADVISORY SUMMARY
                 Board/Point #  :  1. 4                          Fails          6
                 Name           :  ZONE1 LEAK                    Alarms         2
                 Sensor Type    :  Refrig. Leak                 Notices        28
                 Eng Units      :  PPM
                 Default on Open :  NONE
                 Default on Shrt :  NONE                       NETWORK OVERVIEW
                 Default Value   :  NONE                         IONet-1        ●
                                                                MODBUS-1       ●
                                                                Echelon        ●
                 Mult Factor    :      1.00                     BACnet IP      ●
                 Sensor Offset  :         0

    Modify Sensor Properties
        Setup Method :  None


                                                              E2 Unit02

                                                              Rev 4.06B24
    OCCUPANCY       :          :              :              IP 10.212.237.145
    OUTPUT          :          :              :        L
                                                              English-US

    Enter desired text | Name of this item
    F1: SET ALARMS    | F2: SET LOGGING                                F5: CANCEL
```

EMERSON. CONSIDER IT SOLVED.