IAQ Sensor
Supplemental Wiring Manual for Accessories

EV-Series
HE-Series
LE-Series
SL-Series
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1.0 OVERVIEW
The Indoor Air Quality (IAQ) monitor uses an advanced MEMS metal oxide semiconductor sensor to detect poor air quality. The sensor reacts quickly to detect a broad range of VOCs such as smoke, cooking odors, bio-effluence, outdoor pollutants, and from human activities. The sensor captures all VOC emissions that are completely invisible to CO2 sensors and provides a linear analog signal output of 4-20 mA, 0-5 or 10-10 VDC and a Normally Open (N.O.) relay to control an alarm or ventilation fan in various ways.

2.0 DIMENSIONS
2.1 IAQ-W

2.2 IAQ-D

Conduit/EMT Connection
Ø 0.875"

Vent Holes

Mounting Holes (X4) Ø 0.200"

Vent Holes
3.0 ELECTRICAL

3.1 WIRING SCHEMATICS

The Normally Closed contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the IAQ-W or IAQ-D.

FIGURE 3.1.0 WIRING SCHEMATIC FOR EV90, EV90P, EV130, EV200, EV240, EV300 UNITS ONLY

The Normally Closed contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the IAQ-W or IAQ-D.

FIGURE 3.1.1 WIRING SCHEMATIC FOR EV450, HE1XIN, AND HE1.5IN UNITS WITHOUT ECM
The Normally Closed contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the IAQ-W or IAQ-D.

**FIGURE 3.1.2 WIRING SCHEMATIC FOR HE1XRT, HE1.5RT, LE-SERIES, AND ALL HE2X AND LARGER UNITS WITHOUT VFDS OR EC MOTORS**

**FIGURE 3.1.3 WIRING SCHEMATIC FOR HE- AND LE-SERIES UNITS WITH FACTORY-INSTALLED VFDS**
EXAMPLE ONLY: See also ECM MOTOR MANUAL SUPPLEMENT

In this example, ERV runs constantly at low Speed 1. During occupancy, ERV runs at higher, variable Speed 2.

JUMPER FOR CONSTANT ON.
SPEED 1 SET BY RESISTORS.
TIME CLOCK ACTIVATES SPEED 2.
IAQ CONTROLLER SETS SPEED 2.

FIGURE 3.1.4 WIRING SCHEMATIC FOR EV450 UNITS WITH ECM

FIGURE 3.1.5 WIRING SCHEMATIC FOR HE1XIN AND HE1.5IN UNITS WITH ECM
4.0 FACTORY ASSISTANCE

In the unlikely event that you need assistance from the factory for a specific issue, make sure that you have the information called for in the Unit Records page in the Owner Information section of this manual. The person you speak with at the factory will need that information to properly identify the unit and the installed options.

To contact RenewAire Customer Service:
Call 800-627-4499
Email: RenewAireSupport@RenewAire.com
About RenewAire

For over 30 years, RenewAire has been a pioneer in enhancing indoor air quality (IAQ) in commercial and residential buildings of every size. This is achieved while maximizing sustainability through our fifth-generation, static-plate, enthalpic-core Energy Recovery Ventilators (ERVs) that optimize energy efficiency, lower capital costs via load reduction and decrease operational expenses by minimizing equipment needs, resulting in significant energy savings. Our ERVs are competitively priced, simple to install, easy to use and maintain and have a quick payback. They also enjoy the industry’s best warranty with the lowest claims due to long-term reliability derived from innovative design practices, expert workmanship and Quick Response Manufacturing (QRM).

As the pioneer of static-plate core technology in North America, RenewAire is the largest ERV producer in the USA. We’re committed to sustainable manufacturing and lessening our environmental footprint, and to that end our Waunakee, WI plant is 100% powered by wind turbines. The facility is also one of the few buildings worldwide to be LEED and Green Globes certified, as well as having achieved ENERGY STAR Building status. In 2010, RenewAire joined the Soler & Palau (S&P) Ventilation Group in order to provide direct access to the latest in energy-efficient air-moving technologies. For more information, visit: renewaire.com