

— INTEGRATED PROGRAMMABLE —  
**CONTROLS**



— **RENEWAIRE EVERYWHERE** —  
EVERY GEOGRAPHY, EVERY CLIMATE, EVERY HOME,  
EVERY BUILDING AND EVERY APPLICATION

# INTEGRATED PROGRAMMABLE CONTROLS



RenewAire's Integrated Programmable Controls (IPC) **IMPROVE FUNCTIONALITY, STREAMLINE OPERATIONS**, and **BOOST EFFICIENCIES** of our energy recovery ventilators (ERVs). These factory-installed controls and sensors provide ERVs with direct digital control (DDC) and enable connectivity with building management systems (BMS).

## APPLICATIONS

The Integrated Programmable Controls are available as either Enhanced or Premium options for ERV units. Premium Controls are standard on all dedicated outdoor air system (DOAS) units.

## KEY BENEFITS

### OPTIMIZE USABILITY

- ◆ **Streamline Management:** Easily adjust ERV parameters through an advanced and intuitive user interface.
- ◆ **Simplify Integration:** Seamlessly connect to existing building systems to centralize unit management.
- ◆ **Automate Sequences:** Execute sophisticated, factory-installed control logic for select controls like frost protection, fan tracking and duct static pressure control.

### IMPROVE PERFORMANCE

- ◆ **Maximize Savings:** Reduce energy costs with advanced bypass economizer and demand-controlled ventilation options.
- ◆ **Increase Reliability:** Ensure maximum uptime with automated system monitoring.
- ◆ **Monitor Operations:** Access live updates on real-time airflow rates, temperatures, humidities, and status alerts.

### INCREASE CAPABILITIES

- ◆ **Expand Connectivity:** Gain access to a wide range of open standard protocols, including BACnet and Modbus.
- ◆ **Broaden Interoperability:** Connect to third-party equipment and receive external signals for integrated unit control.
- ◆ **Utilize Flexible I/O Options:** Leverage versatile I/O points to integrate specialized components like smoke detectors, CO2 sensors, or occupancy overrides.

## CONTROL OPTIONS

### ENHANCED & PREMIUM FEATURES

#### Carel [c.pCOMini] with or without BACnet

- ◆ Temperature (T) sensors on all four sides of the core
- ◆ Relative humidity (RH) sensors for outdoor air and return air
- ◆ Bypass economizer control options
- ◆ Isolation damper control
- ◆ Frost control sequences for colder climates
- ◆ Audible alarm, alarm outputs, and BACnet alarms
- ◆ Filter pressure (PS) with adjustable alarm levels
- ◆ Independent fan speed control with fan proof
- ◆ Built in seven-day schedule with vacation and special days
- ◆ BMS integration via BACnet option or Modbus
- ◆ Ability to override inputs and outputs for testing
- ◆ Embedded web pages for PC access
- ◆ Optional remote display, smoke alarm input, smoke purge input, single fan mode, occupancy sensor, boost mode input

### PREMIUM-ONLY FEATURES

#### Carel [c.pCOMini] with expansion module with or without BACnet

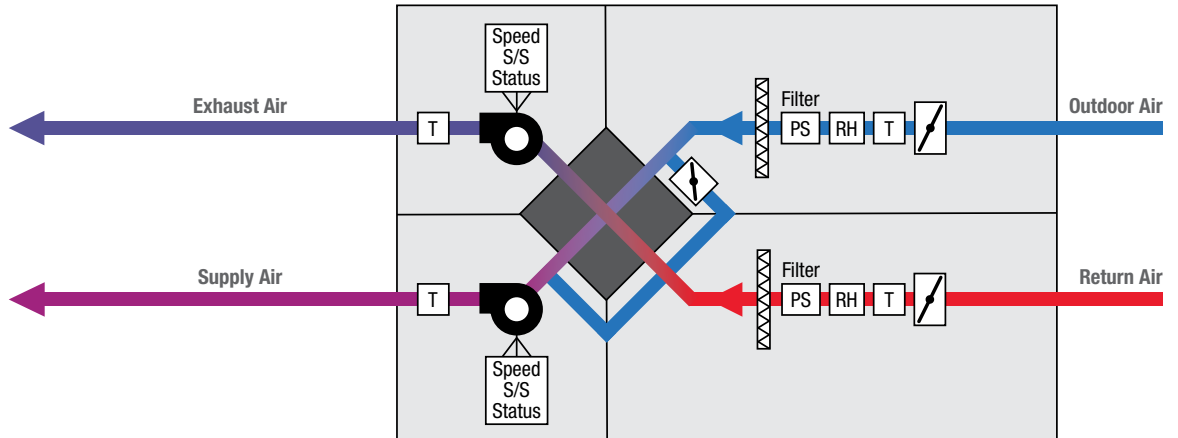
- ◆ Flow pressures (PS) in both airstreams for flow control
- ◆ Inputs for remote CO2 sensors (up to four) or VOC sensors for demand-controlled ventilation
- ◆ Inputs for remote duct pressure for VAV applications and/or space pressure for space pressurization applications
- ◆ Heating control for modulating gas or electric heat, and hot water valve
- ◆ Cooling control for DX coils, VRF systems, chilled water valve, and dual temperature coils
- ◆ Refrigerant leak mitigation sequence
- ◆ Modulating hot gas reheat (HGRH) control
- ◆ Preheater control for colder climates

## ERV: ENHANCED CONTROLS

Optional Room Sensors

- Occupancy

Frost control by cycling the supply fan



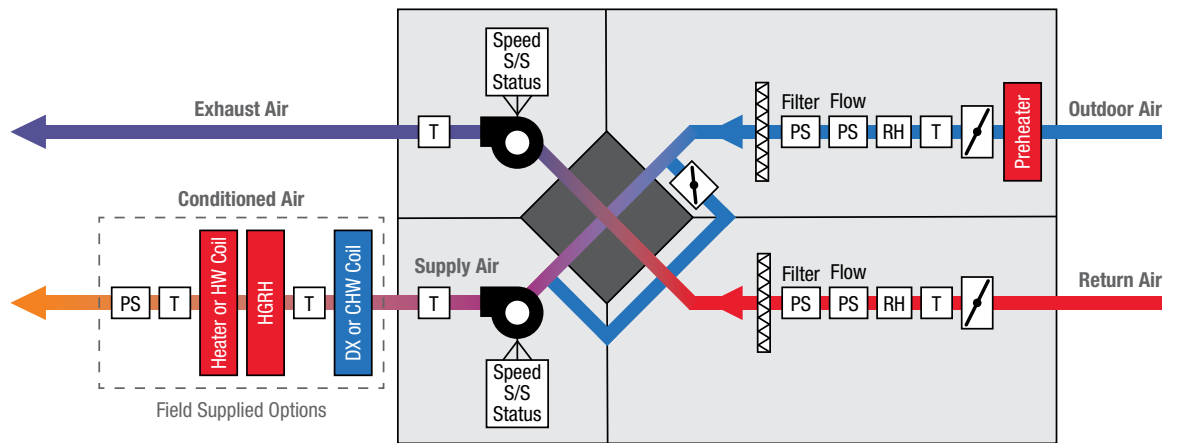
\* Optional Two-Position Bypass

## ERV: PREMIUM CONTROLS

Optional Room Sensors

- Occupancy
- Room Pressure
- CO2 (up to 4)
- VOC

Frost control by cycling the supply fan



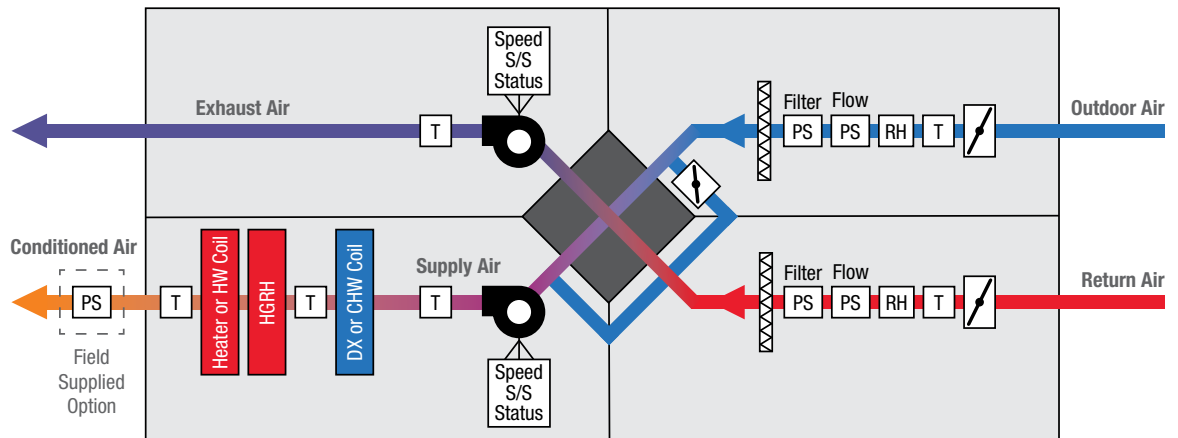
\* Optional Two-Position Bypass

## DOAS: PREMIUM CONTROLS

Optional Room Sensors

- Occupancy
- Room Pressure
- CO2 (up to 3)

Frost control via modulating the bypass damper



\* Standard Modulating Bypass

## ENHANCED OR PREMIUM ACCESSORIES

### REMOTE DISPLAY



Handheld or Wall Mount

### SMOKE DETECTOR



Duct Mount

### OCCUPANCY SENSORS



Ceiling Mount



Wall Mount

## PREMIUM-ONLY ACCESSORIES

### TEMPERATURE SENSORS



Duct Mount  
(for nonintegrated  
heating/cooling)

### PRESSURE SENSORS

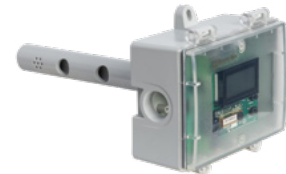


Wall/Duct Mount  
with Display

### CO2 AND VOC SENSORS



Wall Mount



Duct Mount