

ERV Controls At-A-Glance



STANDARD WIRING

ENHANCED CONTROLS

PREMIUM CONTROLS

<p>Turning the Unit On/Off</p>	<p>Dry contact (occupancy sensor, CO2 controller, IAQ Controller, timeclock, etc.)</p>	<p>Based on any or all:</p> <ul style="list-style-type: none"> ♦ Dry contact (occupancy sensor, etc.) ♦ The controller keypad ♦ Schedule with internal timeclock ♦ A BMS system if the feature is enabled <p>Provides feedback on status</p>	<p>Based on any or all:</p> <ul style="list-style-type: none"> ♦ Dry contact (occupancy sensor, etc.) ♦ The controller keypad ♦ Schedule with internal timeclock ♦ A BMS system if the feature is enabled ♦ CO2 level with added sensor <p>Provides feedback on status</p>
<p>Smoke Detection Input</p>	Yes		
<p>Isolation Damper Control (if option is included)</p>	Controlled with on/off where end switches are made to allow fans to run		
<p>Supply & Exhaust Fan Control</p>	<ul style="list-style-type: none"> ♦ On/Off with separate contacts ♦ 0–10 VDC, 4–20 mA, or 10K choice of input for variable speed fans direct to the VFD ♦ Potentiometer for variable speed ECM fans ♦ The CO2 or VOC sensors we offer are also controllers and can be used to control the fan 	<ul style="list-style-type: none"> ♦ On/Off fan control for constant speed fans ♦ Variable speed fan control for variable speed and ECM fans (set as percentage) ♦ Exhaust fan tracking ♦ Single fan operation with digital input or BMS command ♦ Fan feedback via current switch 	<ul style="list-style-type: none"> ♦ On/Off fan control for constant speed fans ♦ Variable speed fan control for variable speed and ECM fans (set as percentage) ♦ Variable speed fan control to a CFM set point ♦ Exhaust fan tracking ♦ Fan control based on CO2 or VOC levels (with optional sensor added) ♦ Fan control based on space or duct pressure levels (with optional sensor added) ♦ Single fan operation with digital input or BMS command ♦ Fan feedback via current switch
<p>Sensor Monitoring</p>	N/A	<ul style="list-style-type: none"> ♦ Outdoor air temperature ♦ Outdoor air relative humidity ♦ Return air temperature ♦ Return air relative humidity ♦ Supply air temperature before tempering ♦ Exhaust air temperature 	<ul style="list-style-type: none"> ♦ Outdoor air temperature ♦ Outdoor air relative humidity ♦ Return air temperature ♦ Return air relative humidity ♦ Supply air temperature before tempering ♦ Conditioned air after tempering ♦ Exhaust air temperature ♦ Supply air CFM ♦ Exhaust air CFM ♦ User-supplied CO2 or VOC sensors ♦ User-supplied room or duct pressure sensors
<p>Filter Monitor</p>	Optional adjustable pressure switches on each airflow. Indication provided by others (not available on EV Series).	Monitoring of pressure across filter for filter status. Can set alarm level.	Monitoring of pressure across filter for filter status. Can set alarm level.
<p>Bypass control (with external bypass option)</p>	Dry bulb or enthalpy sensors are provided with the external bypass depending upon choice.	Sensors and control are included.	Sensors and control are included.
<p>Heating Control (req. conditioned air temperature sensor)</p>	N/A	N/A	<ul style="list-style-type: none"> ♦ 0–10V gas or electric ♦ One- or two-stage heat pump ♦ 10-0V Hot water valve control ♦ Dual temp coil <p>Control based on supply or return air</p> <p>Setpoint can be reset off outdoor air temperature</p>
<p>Cooling Control (req. conditioned air temperature sensor)</p>	N/A	N/A	<ul style="list-style-type: none"> ♦ 0–10V chilled water valve ♦ One- or two-stage compressor/heat pump ♦ Dual Temp Coil <p>Control based on supply or return air</p>
<p>Alarming & Trending</p>	N/A	Audible alarms with acknowledgement. Most important information trended for 7 days at 5 second intervals.	Audible alarms with acknowledgement. Most important information trended for 7 days at 5 second intervals.
<p>BMS Integration</p>	N/A	<ul style="list-style-type: none"> ♦ Modbus RTU or IP ♦ BACnet MSTP or IP (with option) 	<ul style="list-style-type: none"> ♦ Modbus RTU or IP ♦ BACnet MSTP or IP (with option)

