

What's new;

Make the Next Call on Us !

Announcing our new toll free number:

1-877-733-3833



Honeywell Mercury Reclaim

Honeywell ☐steps up☐ to help save the environment. Bring in your mercury filled thermostats (regardless of manufacturer), to any of our locations, and we'll deposit them in the Honeywell reclaim container for disposal.



Johnson VFDs

Johnson Controls teams up with Cutler-Hammer to release new affordable and compact Variable Speed/Frequency Drives (VFD). Available in a wide range of Horsepower (1 to 250HP) and Voltages (120VAC to 620VAC) the drives have simple setup to advanced control features.



Yorkland stocks VFD drives and accessories from fractional microdrives to the larger 600Volt horsepower.

We developed a **VFD application guide** which includes pump and fan applications for the HVAC industry. Request your free application guide by email (VFDinfo@yorkland.net) or complete and forward the literature request form - enclosed.

CO Sensors by Critical - New Health Standard 25PPM

New health standards for ventilation has reduced the allowable Carbon Monoxide (CO) levels to 25 PPM from 50 PPM !

Upgrade your ventilation system to include monitoring and control of CO. New quality electro-chem sensors from Critical Environments are available and in stock.

Forward the enclosed request form to obtain a copy of the new standard and information on why you should upgrade to electro-chem sensors.



Economizer Retrofit Package by Belimo

Any time of the year is a good time to think about retrofitting or upgrading Economizer ventilations systems. Belimo has announced a complete retrofit package to upgrade existing actuators. Complete the literature request form to get additional application information.

Honeywell CO₂ Sensors

Studies have shown that Economizer savings can increase by over 100% with the addition of Carbon Dioxide Sensors (CO₂). Honeywell has introduced an economical line of sensors which include: duct and space mount with or without digital readout.

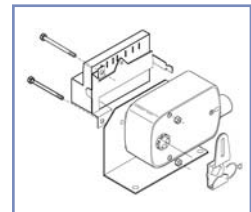
Studies have shown that Economizer savings can increase by over 100% with the addition of Carbon Dioxide Sensors (CO₂).

As a leader in developing the economizer control market, Honeywell has developed a ☐white paper☐ which describes CO₂ Demand Control Ventilation (DCV), savings and opportunities. Request by email (DCV@yorkland.net) or forward the request form, enclosed.

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Looking for new energy savings initiatives?

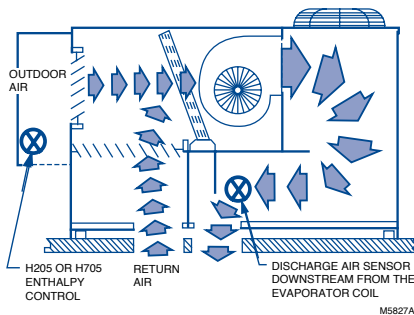


Consider **DEMAND CONTROL VENTILATION** for commercial packaged heating and cooling systems with economizers.

New solid state economizer systems that incorporate CO₂ sensors to monitor and control ventilation based on building occupancy can provide as much as 30% energy savings, as compared to outdated controls.

Economizers, THEN and NOW

Economizers were developed to reduce energy costs by providing "free cooling" by bringing in outside air when the outdoor temperature was lower than the indoor temperature. As outdoor conditions changed, and temperature increased, mechanical cooling would be energized, and the outside air dampers set to minimum 15-20% open...



... sounds great, but consider the following economizer control strategies.

Dry Bulb Economizer Control

This original system was designed to bring in outdoor air based on temperature only, and would open the outdoor air dampers when the return air dry bulb

temperature dropped below a certain setpoint. Since the humidity was not taken into account, this system could bring in cool, but humid air. The mechanical cooling system would then have to run longer to remove this humidity, and ultimately decrease any potential savings.

Additionally, if this system was not disabled during the heating season, excess outdoor "cold" air could be brought in causing the heating system to run longer to warm this cold air up to comfort levels.

Single Enthalpy Control

To remedy this excess outdoor humidity issue, the single enthalpy economizer (or Outdoor Air Economizer) uses an outdoor enthalpy sensor to control based on both temperature and humidity. This strategy does offer an improvement, but still could admit outside air even though the building return air enthalpy may be lower. Again, the cooling system would have to run longer to remove the humidity.

Differential Enthalpy Control

The natural evolution to achieve greater savings was to maintain the outdoor enthalpy sensor, and add a return air enthalpy sensor. This strategy would control outdoor air damper modula-

tion based on this difference between the sensors, as well as outdoor air enthalpy conditions, all-the-while maintaining minimum ventilation based on maximum design occupancy.

This system is proven to offer substantial energy savings, but would still allow minimum IAQ ventilation (again, based on maximum occupancy design), even though the building may be unoccupied. At this level, this system has the potential of excess humid air entering during cooling season, or excess cold air entering during the heating season.

Enthalpy with Demand



Recent changes in ventilation standards allow the outdoor air minimum position to be adjusted lower, or greater, depending on the actual "people load" in the building, or Demand Control Ventilation. Carbon Dioxide (CO₂) sensors integrated with economizer logic controllers adjust the outside air dampers based on the CO₂ levels generated by the occupants. If the building is unoccupied, the outdoor air dampers can modulate to a new "minimum", thus reducing the excess humidity, or cold conditions, and effectively increasing energy savings!

As an added benefit, DCV also gives greater control for

IAQ, and therefore giving enhanced comfort to the buildings occupants, during both the heating, and cooling seasons. Consider the following design application as an example.

A recreational facility has a maximum design for 200 people in the main gymnasium, and the outdoor air minimum is set to ventilate to that occupancy load. The actual occupancy in the gym can vary throughout the day depending on aerobics classes, games, or meetings. Rather than maintaining a constant minimum throughout the day when the occupancy level is changing constantly, the DCV will reset the minimum based on the CO2 generated by the people load. If there are only 30 people in the room, the minimum will reset to reflect this.

The same would hold true for restaurants, school classrooms, libraries, churches, and offices.

On average, the energy savings achieved with the various control strategies are illustrated in the following table.

Change Over Type	% Savings
Dry Bulb	19-39%
Single Enthalpy	22-42%
Differential Enthalpy	23-44%
Enthalpy with Demand	30-80%

By incorporating demand control ventilation, the savings above result in paybacks typically within 1 year.

Additional Utility Incentives are available for installing this technology. Please contact Yorkland Controls for more details.

Honeywell Automation and Control Solutions offers several stand-alone solid state economizer control systems, designed for both small and larger buildings, and with or without DCV.



Want to learn more about DCV and the savings that can be achieved?

Contact Yorkland Controls for a copy of the Honeywell technical article Retrofitting Economizer Controls by Steven D. Mueller, Honeywell Home and Building Control. This article details the various economizer strategies, and documents case studies to outline typical savings.

Have an application that you want to calculate potential savings?

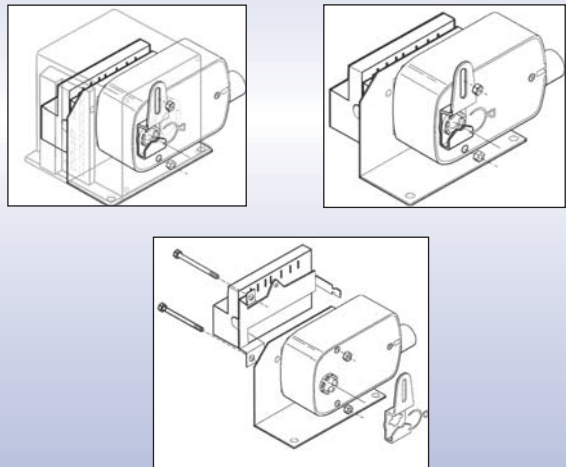
For a copy of Honeywell's Savings Estimator Software that

takes into account the type, area, and geographic location of building, the type and quantity of equipment, occupancy patterns, setpoints, energy and installation costs, and automatically calculates potential savings, visit us at www.yorkland.net

New! Retrofit Solution for Economizer Applications from Belimo

Maybe you have applications with existing economizers and would like to retrofit the controls or replace older style foot mount actuators with newer direct mount solutions.

Belimo now offers ZG-ECON accessory kits and retrofit LF series actuators to connect with existing Honeywell W7200 and W7400 series economizer controllers. With these new brackets, the Belimo actuators can be mounted directly onto the Honeywell controller for quick and easy installation.



ZG-ECON1 mounting and Replacing M7415 and M8405

In addition, Belimo has recently introduced a full range of brackets which can virtually replace any direct or non-direct coupled actuator from various manufacturers with a Belimo direct mount solution. With their new MFT technology, the Belimo actuators can also be set up to operate with 0-135 ohm Honeywell Series 90 controllers, Barber-Colman 6-9 volt controls, or Staefa 0-20 volt phasecut signals.

For a copy of the new Belimo Retrofit Solutions brochure, please complete the enclosed Literature Request Form, and fax to: **1-416-661-3320**

What's new; continued

2005/2006 Gas Utility Rebates Enbridge, Union Gas

Energy costs continue to increase. Both Enbridge and Union Gas recognize the value that a well designed control strategy can do to lower gas consumption. Yorkland is a value added partner of both Union Gas and Enbridge Gas Distribution and we can assist you as you consider implementing energy conservation measures. Proven measures endorsed by the utilities include:

- ¥ Demand Control Ventilation for Industrial and Manufacturing locations
- ¥ CO₂ Demand Control Ventilation for light commercial facilities
- ¥ Make-Up Air Control and Variable Speed Drives
- ¥ Burner Linkage-less systems
- ¥ Monitoring and Targeting
- ¥ Control Optimization
- ¥ Integrated Boiler Room Controls

Contact us at - incentives@yorkland.net

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**Yorkland
Controls**
+
ENVIRONMENTAL
SOLUTIONS

Mamac – Yorkland is Distributor

Yorkland is a Stocking Distributor for MAMAC. Mamac is a leader in the manufacturing of sensor technology. Temperature, Humidity, and Pressure sensors are available at both of our locations.

The Mamac items complements our existing sensor lines from:

- ¥ Veris — Hawkeye
- ¥ ACT — Interface devices
- ¥ Functional Devices — RIB
- ¥ Carlo Garvazzi

Functional Devices “RIB”

The Original Relay in a Box is now stocked at Yorkland. Reduce wiring and installation costs. These enclosed relays have many features such as LED indication, multi-power coil contacts, Hand —OFF-Auto switches, integrated status and enable contacts, and much much more. Request your application catalogue via the enclosed Literature request form.

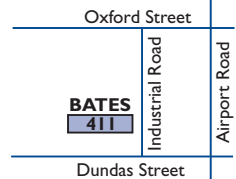
New

STOCKING & PARTS PICK UP DEPOT

in London, Ontario

Together with **Bates Electronics**,
a convenient parts pick-up location at:

411 Industrial Road, Unit 8
London, Ontario N5V 3L3



Honeywell Hydronic Controls

Honeywell has released a complete line of Hydronic Specialty items to enhance their current offering of Braukmann. Included in the new offering is a complete line of Domestic Hot Water Mixing (DHW) Tempering Valve assemblies. The assemblies target those facilities and institutions which have DHW capacity/control issues. The High-Low mixing assemblies provide constant water temperatures— typically at 120 Deg F, while the tank is at 140 deg F (to avoid legionella) — at both low and high flows.



New Anti-Sweat Controller for Refrigeration Display Cases

New from Emerson Flow Controls, the miniature anti-condensation control can mount easily in existing door frames or electrical race ways. Save Energy— no more electric heaters running wild and consuming energy all year long! Complete the request form for additional information.

SYSTEM 350 by Johnson Controls

A new 2005-2006 catalogue with additional applications is available from Yorkland!! These controls have become a staple in the electronic control market.