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ECONOMIZER RETROFIT SOLUTIONS

- Extremely simple to navigate, the easy-to-read automotive grade LCD display delivers clear live status information, easy setup, changes, and operating history.
- ZIP Code patented technology the system will automatically recognize your climate zone and will set the high limit change over temperature providing automatic compliance.
- Plug and Play self-configuring, if it's not plugged into the economizer, you won't have to worry about setting it up.
- Integrated onboard test sequence that ensures effortless compliance with California Title 24, and verification of proper operation.
- Fault Detection and Diagnostics (FDD) troubleshoot faults, initiates alarms, and reconfigures for best operation.
- First and only economizer control that integrates onboard help for setup or troubleshooting.
- Flexible, module design capable of adding remote communication and/or energy savings strategies on the same footprint.



Applications

The ZIP Economizer saves energy in buildings by using cool outside air as a means of cooling the indoor space. The ZIP can reduce HVAC energy costs in cold and temperate climates while also improving indoor air quality.

As energy codes change towards continual efficiency, the ZIP Economizer satisfies all the requirements. ZIP Economizer, with its 'plug and play' modular design, and patented ZIP Code setup allows an easy way to ensure maximum energy savings and compliance with local energy codes.

Belimo ZIP Economizer™ - An All-Inclusive Pass to Better Efficiency, Ease of Use, and Peace of Mind.

LCD Display

Automotive quality, easy-to-read display allows easy verification of set values and real time operating information

Onboard Information

Integrated help for setup and/or troubleshooting.

Future Expansion Module!

ECON-ZIP-BASE

The plug and play modular design gives users flexibility without complex set-up or configuration. The ZIP Base allows for non proprietary sensors to be used.

ECON-ZIP-EM

Optional Energy Module that add I/Os to offer higher control functionalities that will save energy and will meet new and future minimum code requirements, such as 2 speed fan and Demand Control Ventilation (DCV).

ECON-ZIP-TH

Temperature and humidity sensor for calculating enthalpy.



Expanded Functionality

with Belimo Actuator for continuous feedback and quicker running times in test mode.

ECON-ZIP-10K

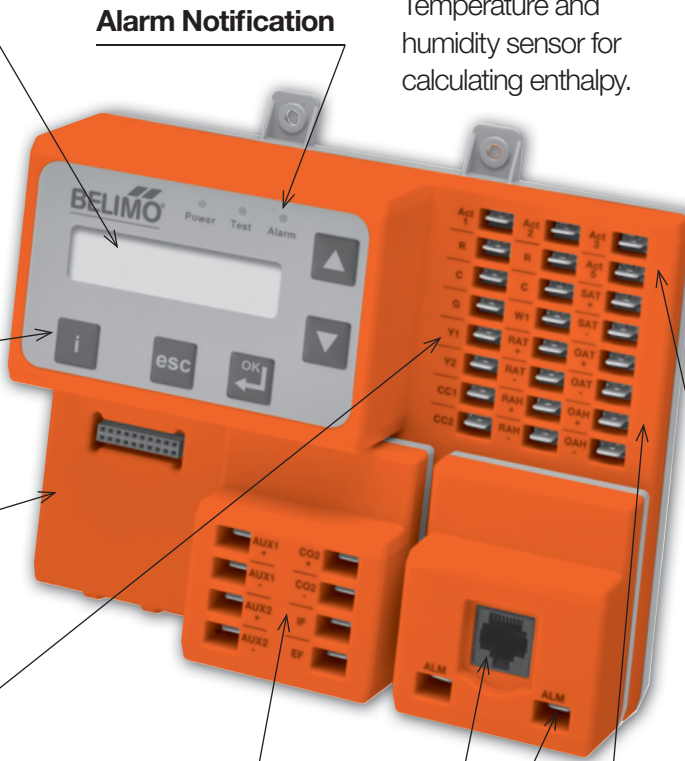
Air temperature sensors.



Remote Alarm

ECON-ZIP-COM

Optional Communication Module that provides alarm output and firmware update with future capabilities such as data trending, building automation integration and OEM communication integration.



Learn more: www.ZIPeconomizer.com



Specification

Power supply	24 VAC ±20%, 50/60 Hz, class 2 power (±15% accuracy)
Power consumption	4 VA base control (ECON-ZIP-BASE)
	5.5 VA base control with Energy Module (ECON-ZIP-BASE + ECON-ZIP-EM)
	5 VA base control with Communication Module (ECON-ZIP-BASE + ECON-ZIP-COM)
	6.5 VA base control with Energy Module and Communication Module.
Supported temperature sensor	NTC 10K (type II thermistor) sensor auto-detection
Supported humidity sensor	0-10VDC; sensor auto-detection
Supported CO ₂ sensor	0-10VDC; sensor auto-detection
Environmental	RoHS, conformally coated
Ambient temperature	-40°F to +158°F [-40°C to +70°C]
Storage temperature	-40°F to +176°F [-40°C to +80°C]
Humidity	5 to 95% R.H. (non-condensing)
Wiring	¼" male spade connectors
Housing material	UL94-5VA
Housing	UL Type 1
Display	2x16 character LCD display
Display color	white LED backlight
Display operating temperature	-22°F to +176°F [-30°C to +80°C]
Agency listings*	EMC according to UL60730-1

*Additional listings pending approval



Model	List Price
ECON-ZIP-BASE	\$440.00

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Suitable Spring Return Actuators

Model	Control Input	Feedback	Power Supply	Running Time(s)		VA Rating	Auxiliary Switch	List Price
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ACTUATORS								
AFB24-SR	2-10 VDC	2-10 VDC	24 VAC/DC	95 seconds	<20 seconds	8.5	—	\$588.00
NFB24-SR	2-10 VDC	2-10 VDC	24 VAC/DC	95 seconds	<20 secs	6	-	\$515.00
LF24-SR US	2-10 VDC	2-10 VDC	24 VAC/DC	150 seconds	<25 seconds	5	—	\$446.00
TFB24-SR	2-10 VDC	2-10 VDC	24 VAC/DC	95 seconds	<25 seconds	4	—	\$384.00

Accessories

ECON-ZIP-TH

Temperature and humidity sensor. Allows for reliable outdoor air and humidity readings and provides enhanced functionality when used with the ZIP Economizer.

\$150.00


ECON-ZIP-10K

Temperature sensor.

\$30.00

Accessories

List Price



ECON-ZIP-EM

Optional Energy module that add I/Os to offer higher control functionalities that will save energy and will meet new and future minimum code requirements, such as 2 speed fan and Demand Control Ventilation (DCV).

Technical Data			
Type	Name	Description	Electrical Specification
Input	CO2 +/-	CO2 sensor input	0-10 VDC sensor auto-detection
Output	IF	indoor fan low speed enable	100'000 cycles @ inrush current of 3A, normal current 1.5A impedance for auto detection @24 V: <600 Ω @ 60Hz <800 Ω @ 50Hz
Output	EF	exhaust fan enable	100'000 cycles @ inrush current of 3A, normal current 1.5A impedance for auto detection @ 24 V: <600 Ω @ 60Hz <800 Ω @ 50Hz
Input	AUX1 ±	auxiliary input purge contact input	on/off, 24 VAC, 50/60 Hz current load min. 10mA
Input	AUX2 ±	auxiliary input remote potentiometer input	2-10 VDC

\$100.00



ECON-ZIP-COM

Optional Communication module that provides alarm output and firmware update with future capabilities such as data trending, building automation integration and OEM communication integration.

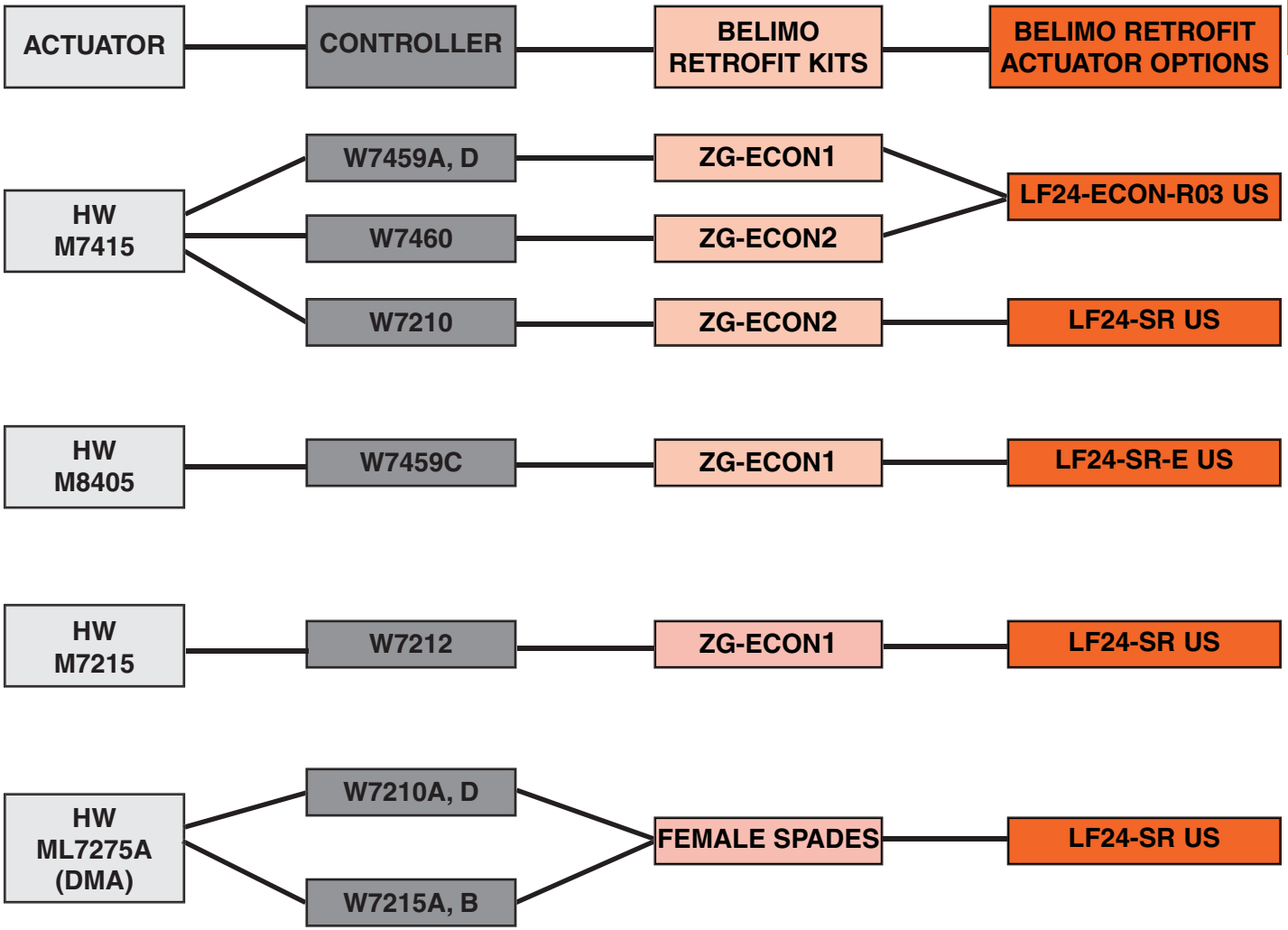
Technical Data			
Type	Name	Description	Electrical Specification
I/O	Comm	communication interface	RS485 interface optical isolation max. 1k VDC (for max. 1min) Pin 4: RS485 Com Gnd Pin 7: RS485 Com A Pin 8: RS485 Com B
Relay	ALM	diagnostic alarm	relay contact 24 V normal current: 0.5A inrush current: 1A

\$156.00

Honeywell to Belimo Economizer Solutions

When replacing an existing actuator in an economizer unit, be sure to consider the application parameters before selecting the replacement. Use the chart below for reference. Belimo offers many direct coupled and non-direct replacement solutions. Start with your current model and controller type, and follow the diagram to the appropriate Belimo kit and actuator option.

ECONOMIZER SOLUTIONS



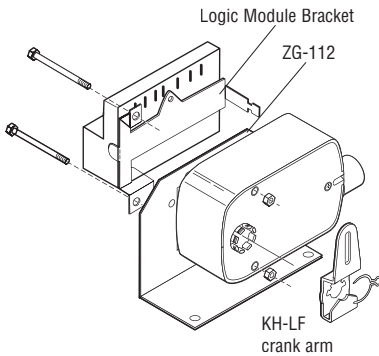
Please contact Belimo Customer Service for other solutions.

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ECONOMIZER SOLUTIONS

Retrofit replacement solutions - Honeywell M8405 Actuator

List Price



M8405 Actuator

The three-position control functionality of the LF24-SR-E US allows direct replacement of a Honeywell M8405A foot mounted economizer actuator.

LF24-SR-E US

\$480.00

ZG-LF112

Crank arm adaptor kit - includes KH-LF crank arm and clip, ZG-112 bracket and mounting hardware.

\$54.00

20477-00001

Logic module bracket for Honeywell

\$54.00

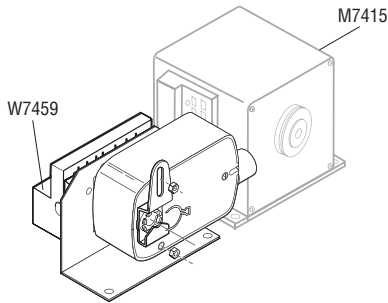
KG6

Ball joint (if needed)

\$16.00

Retrofit replacement solutions - Honeywell M7415 Actuator

List Price



M7415 Actuator

The proportional control of mixed air set point the LF24-ECON-RO3 US allows direct replacement of a Honeywell M7415 economizer actuator.

LF24-ECON-RO3 US

\$504.00

ZG-ECON1

Includes ZG-112, KH-LF, 20477-00001 (logic module bracket), KG6 (ball joint), and 4 male spade connectors.

\$90.00

ZG-ECON2

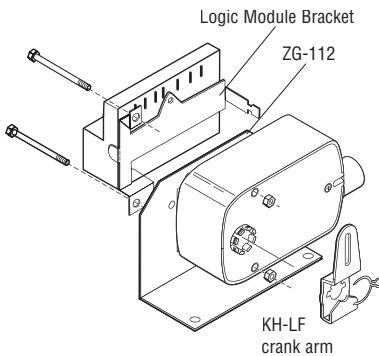
Includes ZG-112, KH-LF, KG6 (ball joint), and 4 female spade connectors.

\$72.00

Choose either ZG-ECON1 or ZG-ECON2.

Retrofit replacement solutions - Honeywell M7215 Actuator

List Price



M7215 Actuator

The proportional control of mixed air set point the LF24-SR US allows direct replacement of a Honeywell M7215 economizer actuator.

LF24-SR US

\$446.00

ZG-ECON1

Includes ZG-112, KH-LF, 20477-00001 (logic module bracket), KG6 (ball joint), and 4 male spade connectors.

\$90.00

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