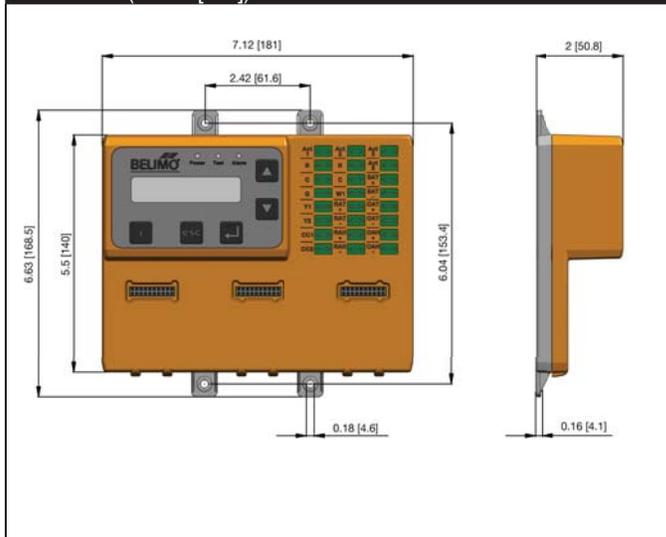




### Technical Data

Power Supply	24 VAC ± 20%, 50/60 Hz; Class 2 power source
Power Consumption Rating*	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 with Energy Module and Communication Module.
Rated Impulse Voltage	330V
Connectors	1/4" male spade connectors
Environmental	RoHS, Conformally Coated
Software Class	A
Control Pollution Degree	3
Temperature Input Signal	NTC 10kOhm
Humidity	5 to 95% RH non-condensing
Humidity Input Signal	0-10 VDC; corresponds to 0 to 100%
Housing	NEMA 1
Housing Material	UL94-5VA
Ambient Temperature Range	-40°F to +158°F (-40°C to +70°C)
Storage Temperature Range	-40°F to +176°F (-40°C to +80°C)
Display	2x16 character LCD; LED backlight; transfective
Display Op. Range**	-22°F to +176°F (-30°C to +80°C)
Agency Listing	cULus acc. to UL873, CAN/CSA C22.2, No. 24-93
Energy Code Compliant	ASHRAE 90.1, CA Title 24, NECB

### Dimensions (Inches [mm])



### Product Features

The ZIP Economizer™ is a modular designed, plug and play economizer control solution. The ZIP offers an extended temperature transfective LCD display, with on board help, providing information every step of the way. Through its patented ZIP code set up, the system will automatically recognize your climate zone and will set the high limit change over temperature providing automatic compliance. Integrated onboard test sequence that ensures effortless compliance with California Title 24, and verification of proper operation. Auto-detection of inputted devices and non-proprietary sensors, allows for a quicker, and easier set up. Through its superior fault detection and diagnostics (FDD), it troubleshoots faults, initiates alarms, and reconfigures for best operation. Up to 10 alarms are stored as historic alarms, and with operating hours tracking it makes troubleshooting and maintenance easier.

### Application

Direct expansion RTUs up to 30 tons, single dry bulb, single enthalpy, differential dry bulb, differential enthalpy change over strategies. Integrated cooling operations only when damper is 100% open (2 stages thermostat required). When optional energy module is used (ECON-ZIP-EM) demand control ventilation, pre occupancy purge, power exhaust, remote damper position override, fan speed switch. When optional communication module (ECON-ZIP-COM) is used remote alarm indication is available.

### Suitable Actuators

Spring Return	
ECON-ZIP-BASE	AFB24-SR, NFB24-SR, LF24-SR, TFB24-SR

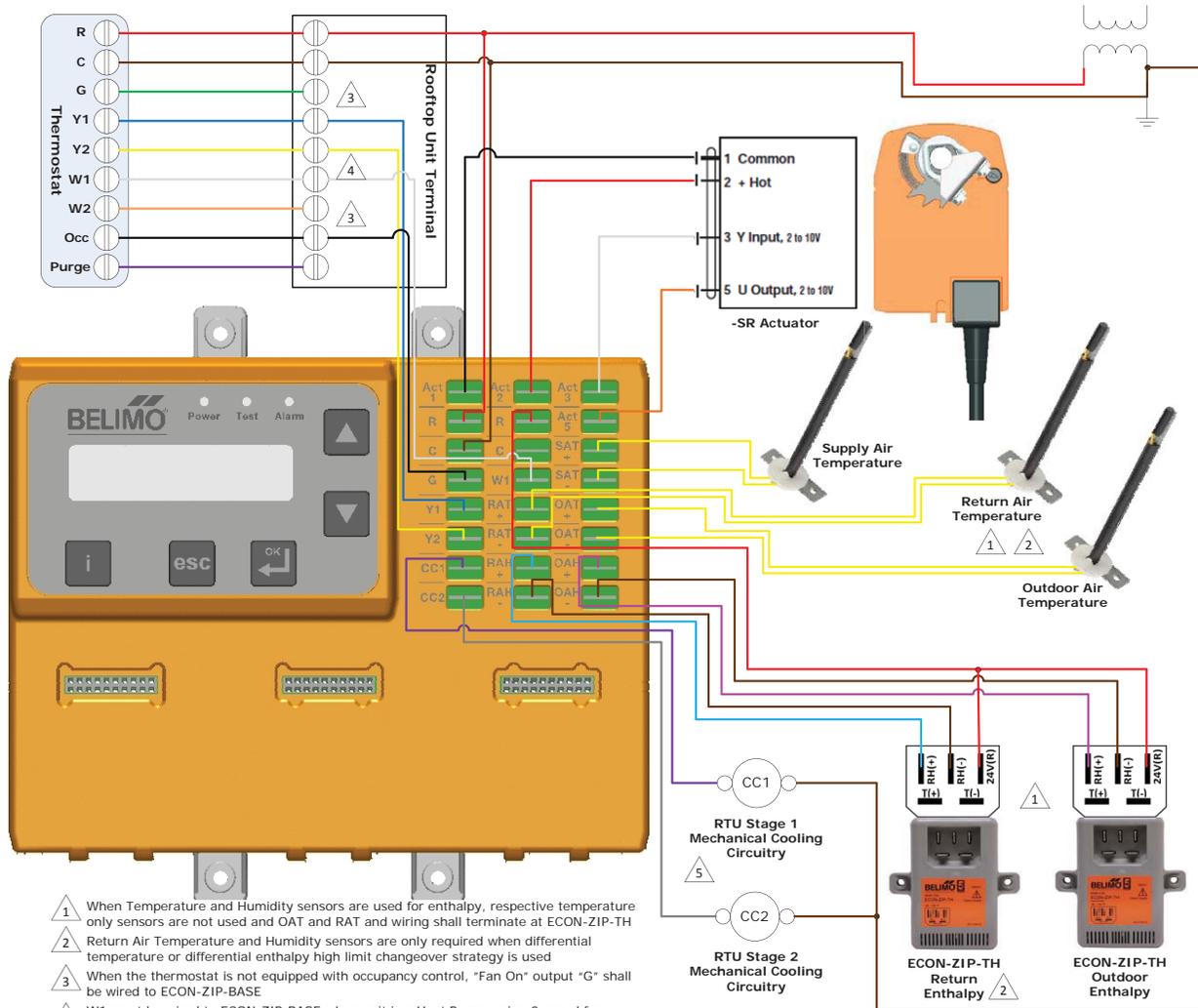
### I/O Specifications

Type	Name	Description	Electrical Specification
Input	R	Supply Hot	24 VAC, ± 20%, 50/60Hz
Input	G	Fan Signal (occupied)	On/Off, 24 VAC, ± 20%, 50/60Hz
Input	C	Supply Common	Common
Input	Y1	Cooling requirement Stage 1	On/Off, 24 VAC, ± 20%, 50/60Hz
Input	Y2	Cooling requirement Stage 2	On/Off, 24 VAC, ± 20%, 50/60Hz
Input	W1	Heating requirement Stage 1	On/Off, 24 VAC, ± 20%, 50/60Hz
Input	SAT ±	Supply Air Temperature Sensor	Type: 10K NTC (Type II thermistor)
Input	OAT ±	Outdoor Air Temperature	Type: 10K NTC (Type II thermistor)
Input	OAH ±	Outdoor Air Humidity	0-10 VDC Auto Detection: Sensor present if voltage 0.5V-10V
Input	RAT ±	Return Air Temperature	Type: 10K NTC (Type II thermistor)
Input	RAH ±	Return Air Humidity	0-10 VDC Auto Detection: Sensor present if voltage 0.5V-10V
Output	CC1	Compressor 1 RTU Stage 1 Mechanical Cooling Circuitry	100'000 cycles @ inrush current of 3A, normal current 1.5A Impedance for Auto detection @ 24 V: <600 Ohm @ 60Hz <800 Ohm @ 50Hz
Output	CC2	Compressor 2 RTU Stage 2 Mechanical Cooling Circuitry	100'000 cycles @ inrush current of 3A, normal current 1.5A Impedance for Auto detection @ 24 V: <600 Ohm @ 60Hz <800 Ohm @ 50Hz
Output	Act 1	Actuator supply common	Common
Output	Act 2	Actuator supply hot	24 VAC, 50/60Hz
Output	Act 3	Actuator control output	2-10 VDC
Input	Act 5	Actuator feedback signal	2-10 VDC

\*The power consumption is for the control only and does not include connected loads such as actuator, compressors, fans, and sensors. For transformer sizing, the power consumption of these attached components must be included.

\*\*At low temperature, the display has decreased response time, below -22°F (-30°C) it will not function.

**Wiring Diagram**



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