

# JADE<sup>®</sup> ECONOMIZER SOLUTIONS

Healthier Buildings and Energy  
Savings With Optimal  
Ventilation Solutions

Honeywell

# THE JADE<sup>®</sup> ECONOMIZER RETROFIT SOLUTION

For stand-alone rooftop unit and wall mount air handler applications, a JADE Economizer is the best solution for a fresh air ventilation system. And it includes many of the features you'd expect to find in more expensive units:



- Menu driven user interface with large LCD display and simple navigation for fast set-up and commissioning
- Small footprint and color-coded wiring terminals help with easy and flexible installation in various RTU/AHU applications
- Two-wire Sylk<sup>®</sup> bus reduces wiring complexity while providing advanced diagnostics including the common damper mechanical binding issues
- Embedded fault detection and diagnostics with alarm output for thermostat to quickly identify sensor failures or loss of communication, saving time on service
- Demand control ventilation (DCV) via optional CO2 sensor
- Operational test mode
- Configurable freeze protection
- Ensures compliance with most local codes and guidelines including ASHRAE, IECC and California Title 24

JADE saves you time during installation with menu driven user interface. It can be installed and configured by technicians without significant training. Highly customizable to accommodate a wide range of economizer applications. Once installed, your customers will know the economizer is working properly, satisfying their ventilation and cooling needs and minimizing their cooling energy costs.



## HEALTHY BUILDINGS, MAXIMUM SAVINGS

JADE can lead to significant savings for customers using demand control ventilation and free cooling. Using JADE, some customers have seen their mechanical cooling use decrease by up to 40 percent while increasing occupant comfort and indoor air quality.

## FAULT DETECTION AND DIAGNOSTICS

JADE economizers provide on-board fault detection and diagnostics, reducing service and commissioning time.

When paired with a Honeywell TC Series thermostat, your customers can call for service when there is an alarm in the system. Highly customizable to accommodate a wide range of economizer applications. Jade will help ensure your customers maintain their healthy building standards.

## OPTIONAL PC CONFIGURATION TOOL

The PCMOD interface and software tool allows you to use a PC to program Jade controllers quickly. This reduces technician installation time for multi-unit retrofit applications. It allows rapid Jade programming via saved configuration(s) to multiple controllers either on-site or off-site.

“It’s so easy to use, it’s as plug and play as it gets.”

— Honeywell Contractor



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# FLEXIBLE SOLUTION FOR VARIOUS APPLICATIONS

Jade pre-configured Y-packs support a variety of different applications and needs.

- Differential dry bulb temperature
- Outdoor air enthalpy (temperature + humidity)
- Direct coupled or foot mounted actuator configurations
- 27 in-lb or 44 in-lb actuators options based on economizer damper size
- Honeywell's proven Sylk™ bus communicating technology for high reliability and actuator/damper fault detection



## ECONOMIZER INDUSTRY BENCHMARK

For decades, Honeywell has led the way, developing and delivering the most popular control systems in the industry. Jade economizer solutions represent the industry benchmark for simplicity, reliability, and precise performance.

With minimal service requirements, JADE economizer controllers are built to deliver years of reliable service. And when used with all Honeywell components in the system, they're backed by a 5 year warranty.

## DEMAND CONTROL VENTILATION BASED ON OCCUPANT DENSITY

ASHRAE recommends maximizing fresh air ventilation as an essential means to dilute indoor airborne pathogens and contaminants as part of any healthy building strategy.

The best way to optimize IAQ and energy consumption is via Demand Control Ventilation (DCV) using CO2 sensing. A CO2 sensor strategically placed in the area of conditioned zone with the highest occupant density will signal additional fresh air ventilation whenever the Jade programmed CO2 concentration threshold is exceeded. Jade economizers combined with Honeywell CO2 sensing technology improve the indoor air quality for building occupants while optimizing energy consumption and costs for the building owner.



Many local and regional utilities offer rebates and other incentives for using a JADE economizer controller. Contact your local utility to find out about programs in your area.

# JADE® Y-PACK SELECTION GUIDE

CONFIGURATION	Y-PACK P/N	CONTAINED IN Y-PACK				
		ACTUATOR	JADE ECONOMIZER	MOUNTING KIT	DRY BULB SENSOR	ENTHALPY SENSOR
Diamond Communicating Actuator 27 lb-in (3 Nm), Foot-mount, Dry Bulb	Y7220AJ3104	MS3103J1022	W7220A1000	DIAM-CRK-01	C7250A1001 X 2	-
Diamond Communicating Actuator 27 lb-in (3 Nm), Foot-mount, Enthalpy	Y7220SJ3104	MS3103J1022	W7220A1000	DIAM-CRK-01	C7250A1001 X 1	C7400S1000 X 1
Diamond Communicating Actuator 27 lb-in (3 Nm), Direct Coupled, Dry Bulb	YL7220AJ3104	MS3103J1022	W7220A1000	32336707-001	C7250A1001 X 2	-
Diamond Communicating Actuator 27 lb-in (3 Nm), Direct Coupled, Enthalpy	YL7220SJ3104	MS3103J1022	W7220A1000	32336707-001	C7250A1001 X 1	C7400S1000 X 1
Zelix Communicating Actuator 44 lb-in (5 Nm), Direct Coupled, Dry Bulb	YL7220AJ3105	MS3105J3030	W7220A1000	32336707-001	C7250A1001 X 2	-
Zelix Communicating Actuator 44 lb-in (5 Nm), Direct Coupled, Enthalpy	YL7220SJ3105	MS3105J3030	W7220A1000	32336707-001	C7250A1001 X 1	C7400S1000 X 1

CONTROLLER	PART NUMBER
Jade Economizer Controller	W7220A10000

ECONOMIZER SENSORS	PART NUMBER
Mixed Air or Outdoor Air Temperature Sensor	C7250A1001
Outdoor Air or Return Air Enthalpy Sensor	C7400S1000

DEMAND CONTROLLED VENTILATION SENSORS	PART NUMBER
CO2 - Wall Mount w/Display	C7232A1008
CO2 - Wall Mount, no Display	C7232A1016
CO2 - Duct Mount w/Display	C7232B1006
CO2 - Duct Mount, no Display	C7232B1014

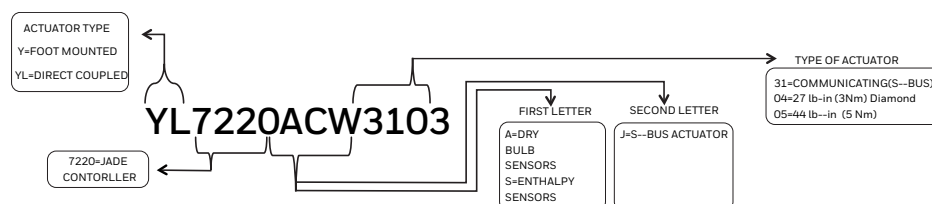
THERMOSTATS	PART NUMBER
TC500 Thermostat RTU/AHU - CA Title 24 Compliant	TC500A-N

ACTUATORS & ACCESSORIES	PART NUMBER
Diamond 27 lb-in (3 Nm), Sylk Communicating	MS3103J1022
Zelix 44 lb-in (5 Nm), Sylk Communicating	MS3105J3030
Foot Mounting Kit* - Diamond 27 lb-in (3 Nm)	DIAM-CRK-01
Diamond DCA Mounting Bracket (Replaces Zelix 27 in-lb)	32336707-001

\*Note: Includes Crank arm, angle bracket, and 2 ball joints (installer must supply linkage rod)



Diamond Actuator Crank Arm Kit With Foot Mount



## Learn More

[www.buildingcontrols.honeywell.com](http://www.buildingcontrols.honeywell.com)

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