

# Economizer Logic Modules

## JADE™ Economizer Module with Sensors and Actuators



The JADE™ Economizer System is an expandable economizer control system, which includes a W7220 Economizer Module (controller) with an LCD and keypad. The W7220 can be configured for 4 different economizer strategies: referential or differential dry bulb, referential or differential enthalpy.

The W7220 Economizer Module can be used as a standalone economizer module wired directly to a commercial set back space thermostat and sensors to provide Outdoor Air dry-bulb economizer control.

The W7220 Economizer Module can be connected to optional Sylk Bus sensors for single or differential enthalpy control. The W7220 Economizer Module provides power and communications on the Sylk Bus for the sensors.

The W7220 Economizer Module automatically detects sensors by polling to determine which sensors are present. If a sensor loses communications after it has been detected, the W7220 Economizer indicates a device fail error on the display or through the AUX 1 OUT terminal programmed to SYS.

**Dimensions, Approximate:** 4.98 in. high x 6.3 in. wide x 1.34 in. deep (126.4 mm high x 160 mm wide x 34mm deep)

**Contact Ratings:** 1.5 A Run @ 30 Vac; 3.5 A Inrush @ 30 Vac

**Voltage:** 24 Vac

**Frequency:** 50 Hz; 60 Hz

**Operating Temperature Range:** -40 F to -150 F (-40 C to +65 C)

**Operating Humidity Range (% RH):** 5 to 95% RH, non-condensing

**Color:** Gray

**Used With:** C7232; Honeywell Series 72 actuators; C7250A and C7400S sensors

**Approvals**

**CE:** CE Compliance

**C-Tick:** Approved

**Federal Communications Commission:** Compliant

**Underwriters Laboratories, Inc:** Flammability Rating UL94V-5V

**Other Agencies:** Complies with California Title 24

| Product Number | Input                                                                                                                                                                     | Output                                                                                                         | Use with Sensor                        |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------|
| W7220A1000/U   | Y1, Y2 and occupied input in from thermostat or unitary controller, 24 VAC power, Mixed air sensor, OA sensor and optional CO2 and RA sensors. And Programmable AUX 2 In. | Y1 and Y2 out to the mechanical cooling, AUX 1 out (programmable), 2-10 or SYLK communicating to the actuator. | C7250A1001/U and C7400S1000/U sensors. |

### Jade Y-packs

| Product Number  | Control Type                                                                   | Includes                                                                                                             | Comments                      |
|-----------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Y7220A7215/U    | Dry Bulb with black motor                                                      | W7220A1000 Logic Module; C7250A1001 OAT sensor; C7250A1001 MAT sensor; M7215A1008 Black motor                        | Output - 2-10 Vdc to actuator |
| YL7220A7503/U   | Dry Bulb with non-communicating DCA                                            | W7220A1000 Logic Module; C7250A1001 OAT sensor; C7250A1001 MAT sensor; MS7503A2030 DCA OA                            | Output - 2-10 Vdc to actuator |
| YL7220AJ3103/U  | Dry Bulb with communicating 27 lb-in DCA                                       | W7220A1000 Logic Module; C7250A1001 OAT sensor; C7250A1001 MAT sensor; MS3103J1030 DCA OA                            | Sylk communicating actuator   |
| YL7220AJ3105/U  | Dry Bulb with communicating 44 lb-in DCA                                       | W7220A1000 Logic Module; C7250A1001 OAT sensor; C7250A1001 MAT sensor; MS3105J3030 DCA OA                            | Sylk communicating actuator   |
| YL7220ACW3103/U | Dry Bulb with communicating 27 lb-in DCA and CO2 wall sensor without a display | W7220A1000 Logic Module; C7250A1001 OAT sensor; C7250A1001 MAT sensor; MS3103J1030 DCA OA; C7632A1004 CO2 sensor     | Sylk communicating actuator   |
| Y7220S7215/U    | Enthalpy with black motor                                                      | W7220A1000 Logic Module; C7400S1000 OAE sensor; C7250A1001 MAT sensor; M7215A1008 Black motor                        | Output - 2-10 Vdc to actuator |
| Y7220SCW7215/U  | Enthalpy with black motor and CO2 wall sensor with a display                   | W7220A1000 Logic Module; C7400S1000 OAE sensor; C7250A1001 MAT sensor; M7215A1008 Black motor; C7232A1016 CO2 sensor | Output - 2-10 Vdc to actuator |
| Y7220SCD7215/U  | Enthalpy with black motor and CO2 duct sensor with a display                   | W7220A1000 Logic Module; C7400S1000 OAE sensor; C7250A1001 MAT sensor; M7215A1008 Black motor; C7232A1016 CO2 sensor | Output - 2-10 Vdc to actuator |
| YL7220S7503/U   | Enthalpy with non-communicating DCA                                            | W7220A1000 Logic Module; C7400S1000 OAE sensor; C7250A1001 MAT sensor; MS7503A2030 DCA OA                            | Output - 2-10 Vdc to actuator |
| YL7220SJ3103/U  | Enthalpy with communicating 27 lb-in DCA                                       | W7220A1000 Logic Module; C7400S1000 OAE sensor; C7250A1001 MAT sensor; MS3103J1030 DCA OA                            | Sylk communicating actuator   |
| YL7220SJ3105/U  | Enthalpy with communicating 44 lb-in DCA                                       | W7220A1000 Logic Module; C7400S1000 OAE sensor; C7250A1001 MAT sensor; MS3105J3030 DCA OA                            | Sylk communicating actuator   |
| YL7220SCW3103/U | Enthalpy with communicating 27 lb-in DCA and CO2 wall sensor with a display    | W7220A1000 Logic Module; C7400S1000 OAE sensor; C7250A1001 MAT sensor; MS3103J1030 DAC OA ; C7232A1016 CO2 sensor    | Sylk communicating actuator   |
| YL7220SCD3103/U | Enthalpy with communicating 27 lb-in DCA and CO2 duct sensor with a display    | W7220A1000 Logic Module; C7400S1000 OAE sensor; C7250A1001 MAT sensor; MS3103J1030 DAC OA ; C7232B1014 CO2 sensor    | Sylk communicating actuator   |