Economizers

Honeywell



QUICK SELECTION GUIDE

Your Guide To Energy Efficiency, Cost Savings And Extended Equipment Life

ECONOMIZER SYSTEM

Easy-to-install Honeywell economizer controls save energy and help ensure that the latest ventilation codes are met. There are models for both standard rooftop units as well as heat pump applications. They're built to last — averaging 15 years of reliable performance. Add it all up, and you'll see that Honeywell economizers are a great choice for you and your customers.

NO (Standard) Demand Control Ventilation (DCV)? YES (Advanced)							
Motor Type	Motor	Logic Module	Sensors	Motor Type	Motor	Logic Module	Sensors
Foot Mount	M7415	W7459A,D	Enthalpy: C7400 ^a	/: C7400 ^a 150/C7046 Foot Mount 25 Ib-in. Torque	M7415	W7460	Enthalpy: C7400 ^a with C7150/C7046
25 lb-in. Torque			with C7150/C7046		M7215	W7212/13/14	
	M9175	H705 or W7210 ^b	Temperature: C7660 with C7150/C7046		M9175	W7215 ^b , W7212 ^b , W7213/14 ^b	Temperature: C7660 with C7150/C7046
DCA 44 lb-in. Torque	MS7505	W7210		DCA 44 lb-in. Torque	MS7505	W7215, W7212, W7213/14	CO ₂ : C7232 or
Foot Mount 60 lb-in. Torque	M7285 M7286	W7210		Foot Mount 60 lb-in. Torque	M7285 M7286	W7215, W7212, W7213/14	67052
	M9185 M9186	H705, W7210 ^b			M9185 M9186	W7215 ^b , W7212 ^b , W7213/14 ^b	
DCA 88 lb-in. Torque	MS7510	W7210		DCA 88 Ib-in. Torque	MS7510	W7215, W7212, W7213/14	
DCA 175 lb-in. Torque	MS7520	W7210		DCA 175 lb-in. Torque	MS7520	W7215, W7212, W7213/14	

^a Enthalpy sensor. Use two for differential enthalpy and one for single enthalpy. For dry bulb only, use C7660 instead. ^b To operate a Series 90 motor, the W7210, W7212, W7213, W7214, and W7215 require a Q7230 interface module or the proper resistor combination (included in the 4074EJM resistor kit); see form 63-2544 for details.

NOTE: Series 90 Modutrol[™] Motors can be retrofitted using W7210, W7212 or W7215 economizer logic modules and a Q7230 or the proper resister combination. Refer to form 63-2544 for details on using economizer logic modules with Series 90 Motors.

LOGIC MODULE

Honeywell logic modules are used to proportion outdoor and return air dampers for control of free cooling in commercial buildings. They can be used with C7232 demand control ventilation sensors, solid state C7400 enthalpy sensors or C7660 dry bulb temperature sensors.





	Model	Indoor Sensor Input (ISI)	Outdoor CO ₂ Sensor Input (OSI)	Enthalpy High Limit	Exhaust Fan Setpoint	Shutdown and Air Change	Purge	Motors Controlled	Model Number
	H705 ^a	No	No	No	None	No	No	Series 90	H705A1003
p	W7459 No	No	No	None	No	No	M7415	W7459A1001	
nda				Yes					W7459D1005
Sta	W7210	No	No	No	None	No	No	Series 72	W7210A1001
				Yes					W7210D1005
	W7212	Yes	No	No	Adjustable	No	No	Series 72	W7212A1009
ced	W7213/14 ^b	Yes	No	No	Adjustable	No	No	Series 72	W7213A1008 ^b
Van									W7214A1007 ^b
Ac	W7215	Yes	No	No	Adjustable	Yes	Yes	Series 72	W7215A1006
			Yes		Fixed		No		W7215B1004

^a The H705 includes a SPDT logic module and C7400 sensor (both affixed to the mounting plate).
^b Terminals B-B1 (W7213) for heat pump applications, terminals O-O1 (W7214) for heat pump applications.

SENSOR

From the mounting option to the application type you need, Honeywell has you covered with a complete line of sensors. Temperature, CO₂, enthalpy — Honeywell has sensors for every situation to help ensure a perfect balance of energy efficiency and comfort. They're easy to install, and because Honeywell builds them, you know they're dependable.



				Model Number	
Model	Sensor Type	Application	Comments	No Display	With Display
C7046	Temperature	Discharge or	Probe with flange	C7046A1004	-
C7150		Mixed Air	Thermistor on board	C7150B1004	-
C7400	Enthalpy	Changeover	-	C7400A1004	-
C7660 [°]	Dry Bulb Temperature		Selectable temperature changeover	C7660A1000	-
C7232	<u> </u>	Wall Mount	Outputs: one relay, one 0/2-10 Vdc analog	C7232A1016	C7232A1008
01232		Duct Mount	or 4-20 mA	C7232B1014 C7232B1006	C7232B1006
07632	CO ₂	Wall Mount	Outputs: one fixed 0-10 Vdc analog	C7632A1004	-
07032		Duct Mount	(fixed 0-2000 ppm)	C7632B1002	-

*Do not use in differential temperature applications.

SPRING RETURN ACTUATOR

Honeywell offers a complete line of foot-mounted and direct-coupled spring return actuators designed to work with economizer modules, so you won't have any concerns about compatibility or wiring issues. Ranging in torque from 25 to 175 in-lbs, these motors fill your requirements for all applications.







Black Motor

Modutrol™ Motor

DCA

Model	Torque (in-Ib.)	Туре	Comments	Model Number
M7215	25	Foot Mounted	Counterclockwise modulating control: 2-10 Vdc,	M7215A1008
		Black Motor	spring return clockwise.	
M7415	25		Counterclockwise modulating control based on mixed/discharge air	M7415A1006
			sensor, spring return clockwise. Require Q769 for 6-9 Vdc or 4-20 mA.	
	25		Clockwise modulating control based on mixed/discharge air sensor,	M7415B1004
			spring return counterclockwise. Require Q769 for 6-9 Vdc or 4-20 mA.	
M9175	25	Foot Mounted	Normally closed. 135 ohm.	M9175A1010
M7285	60	Modutrol [™] Motor	Normally closed. 2-10 Vdc or 4-20 mA.	M7285A1003
M7286	60		Normally open. 2-10 Vdc.	M7286G1009
M9185	60		Normally closed. Proportional. 135 ohm.	M9185A1026
M9186	60		Normally open. Proportional. 135 ohm.	M9186G1006
MS7505	44	Direct Coupled Actuator	Floating, modulating (0/2-10 Vdc or 4-20 mA), or two-position control,	MS7505A2008
			selectable failure position.	
MS7510	88		Floating, modulating (0/2-10 Vdc or 4-20 mA), or two-position control,	MS7510A2008
			selectable failure position.	
MS7520	175		Floating, modulating (0/2-10 Vdc or 4-20 mA), or two-position control,	MS7520A2007
			selectable failure position.	
MS7503	27		Floating, modulating (2-10 Vdc or 4-20 mA) or three-position control or 3K	MS7503A2030
			ohm for economizer control	
MS7403	27		Floating, modulating (2-10 Vdc or 4-20 mA) or three-position control or 3K	MS7403A2030
	27		ohm for economizer control	
MS7405	44		Floating, modulating (2-10 Vdc or 4-20 mA) or three-position control or 3K	MS7405A2030
			ohm for economizer control	

Economizer Savings Estimator

Quickly Compare The Energy Savings Of Various Control Scenarios

Free, up to date and easy to use — three features of the Honeywell Economizer Savings Estimator.

Perfect "What If" Tool

The Economizer Savings Estimator provides the estimated energy savings for using various contorl products for rooftop units. It's current with the latest ASHRAE energy and buildings standards, and you'll find a wide range of building types and ventilation solutions to ensure accuracy.

- Tool uses global information, so you can adjust it for your region.
- Wide range of variables occupancy, setpoints, utility rates and much more — lets you fine-tune the tool for your building type.
- Calculates the building's HVAC carbon site footprint for a greater understanding of the environmental impact.

Perfect Sales Tool

Use the Economizer Savings Estimator to prove your recommendations with detailed numbers. When customers see the clear benefits backed with solid support, you'll see your sales increase. Using actual utility rates shows the true impact of the energy savings.

- Calculates compressor run time vs. economizer run time, so your customers will see how much longer the compressor will last if they use improved demand control ventilation processes.
- There's no need for new software or to take anything more than your laptop on a sales call, because it's always available online at **customer.honeywell.com/economizertools**

The Economizer Savings Estimator is part of Honeywell's commitment to providing energy-saving products and sales support. Try it out now at

customer.honeywell.com/economizertools.



Learn More

For more information about Honeywell Sensors, Logic Modules, Acuators and the entire Honeywell portfolio of cost-efficient building solutions, call **1-800-466-3993** or visit **customer.honeywell.com**.

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