

Electric Actuators

Description

M100 Series Actuators accurately position valves in HVAC and industrial applications. The M100 actuator family includes five torque ratings, two spring return models, choice of control inputs, and a variety of accessories to cover any application.

Applications

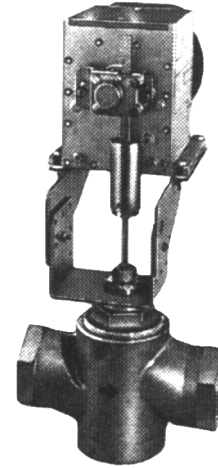
Use with VT Series, Flare Valves, Cage Trim Valves, Iron Valves, and VG7000 Series Valves.

Features

- control inputs include On-Off/Floating control action or proportional control action or proportional control action
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- proportional units feature interchangeable R81 electronic interface boards enabling a variety of different proportional inputs

Repair Information

If the M100 Series Electric Actuator fails to operate within its specifications, replace the unit. For a replacement actuator, contact the nearest Johnson Controls® representative.



M100 Series Electric Actuator

Technical Specifications

| M100 Series Electric Actuators | | |
|--------------------------------|--------------------|------------------------------------|
| Power | Non-Spring Return: | 20 VA |
| | Spring Return: | 24 VAC, 50/60 Hz, 25 VA |
| Operating Conditions | Non-Spring Return: | -40 to 125°F (-40 to 52°C), 90% RH |
| | Spring Return: | -35 to 125°F (-37 to 52°C), 90% RH |

Selection Chart

| Code Number | | Description |
|-------------|-------|--|
| M100 | — — — | 25 lb-in Torque with Spring Return |
| M120 | — — — | 35 lb-in Torque, Non-Spring Return |
| M130 | — — — | 50 lb-in Torque with Spring Return |
| M140 | — — — | 75 lb-in Torque, Non-Spring Return |
| M150 | — — — | 150 lb-in Torque, Non-Spring Return |
| | A | On-Off / Floating Action SPDT On-Off or Floating control input, Mechanical limit switches on ends |
| | C | Proportional Communicates on the zone bus of a BAS AHU or UNT controller, Digital protocol compatible with DSC1000 system level 1 bus |
| | E | Proportional Economizer with changeover relay, refrigeration programming relay, minimum position, mixed air set point and proportional band |
| | F | Incremental Used with Johnson Controls DSC-8500 using the FIC-101 Field Interface Card, This unit has no physical travel limits and will move as long as input command is provided |
| | G | Proportional VDC/mA input (factory calibrated for 0 to 10 VDC), adjustable zero and span, clockwise action on signal increase, 500-ohm resistor factory installed for mA signal |
| | H | Proportional VDC/mA input (factory calibrated for 0 to 10 VDC), adjustable zero and span, counterclockwise action on signal increase, 500-ohm resistor factory installed for mA signal |
| | J | Proportional Three-wire, 135-ohm input, 6 to 10 VDC, and 0 to -2 VDC, clockwise action on signal increase |
| | M | Proportional Direct interface with Honeywell Series 90™, W973, and W7100 controllers. |
| | Q | Proportional Thermistor sensor input, jumper selectable for direct or reverse action |
| | X | Proportional Field installation of R81 kit required |
| | A | 120 VAC |
| | D | 240 VAC ¹ |
| | G | 24 VAC |
| | H | 24 VAC 1:1 isolation ¹ . |
| | A | No auxiliary switch |
| | B | One SPDT switch S91DJ-1 installed on auxiliary end of M100 |
| | C | Two SPDT switches S91EJ-1 installed on auxiliary end of M100 |
| | D | S91 Potentiometer (1000 ohm) installed on auxiliary end of M100 |

1. Includes factory-installed, cover-mounted transformer on models M100A, F, G, H, J, M, and Q only.

Note: All reference to direction of rotation is when viewing the load end. The spring return position is always fully CCW. Travel to angle position is CW.

Use the selection chart to select the desired motor actuator with input control. (Example: To order actuator with 50 lb-in torque, spring return, proportional VDC/mA input, 24 VAC supply without auxiliary switches, use Code Number M130GGA.)