

# Q709 Minimum Position Potentiometer

## INSTALLATION INSTRUCTIONS

### APPLICATION

Q709A Minimum Position Potentiometer mounts directly on M7415/M7405 Dedicated Economizer Actuators to permit adjustment of minimum damper position.

### SPECIFICATIONS

Potentiometer adjusts minimum position from 0 to 100% of actuator stroke. Use with M7415 or M7405 actuator.

### INSTALLATION

#### When installing this product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.



### CAUTION

Disconnect power supply before making wiring connections to prevent electrical shock and equipment damage.

### MOUNTING AND WIRING

Disconnect power supply before making wiring connections to prevent electrical shock and equipment damage. All wiring must comply with applicable electrical codes, ordinances and regulations.

Q709A is supplied with female quick connect terminals which fit over 1/4 in. quick connect terminals P and P1 on M7415, M7405 actuators. See Figs. 3 and 4 for wiring connections.

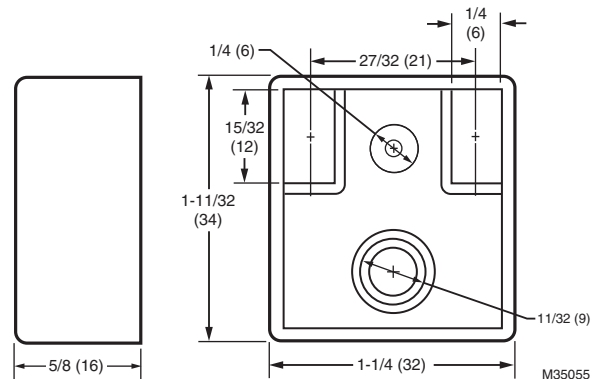


Fig. 1. Mounting dimensions in in. [mm in brackets].

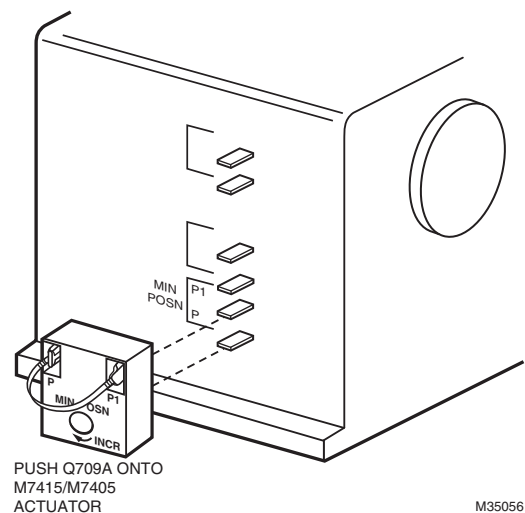


Fig. 2. Mounting Q709 Minimum Position Potentiometer on actuator.



## OPERATION

The Q709 Actuator Mounted Potentiometer limits the minimum position of M7415, M7405 actuator. In an economizer system, the actuator adjusts outdoor and return air dampers to obtain maximum use of outdoor air for cooling. The Q709 is used to limit the minimum damper position so that a specified amount of fresh air is admitted.

## MINIMUM POSITION ADJUSTMENT

### M7405A

1. Run motor to fully closed position and disconnect 24 Vac from terminals TR and TR1.
2. Connect minimum position potentiometer to terminals P and P1, and connect a jumper across terminals M1 and M3. (M2 is not connected.)
3. Reconnect 24 Vac to terminals TR and TR1 and adjust potentiometer for desired minimum position by turning Q709 adjustment screw clockwise (↻) to increase minimum position; counterclockwise (↺) to decrease minimum position.

### M7415A

1. Run motor to fully closed position and disconnect 24 Vac from terminals TR and TR1.
2. Connect minimum position potentiometer to terminals P and P1. (T and T1 are disconnected.)
3. Reconnect 24 Vac to terminals TR and TR1 and adjust potentiometer for desired minimum position by turning Q709 adjustment screw clockwise (↻) to increase minimum position; counterclockwise (↺) to decrease minimum position.

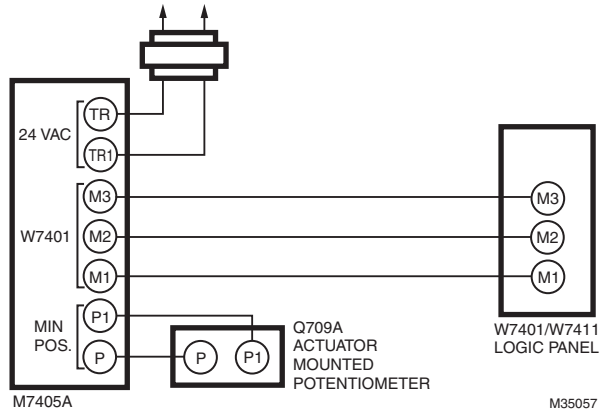


Fig. 3. Q709A with M7405A Dedicated Economizer Actuator.

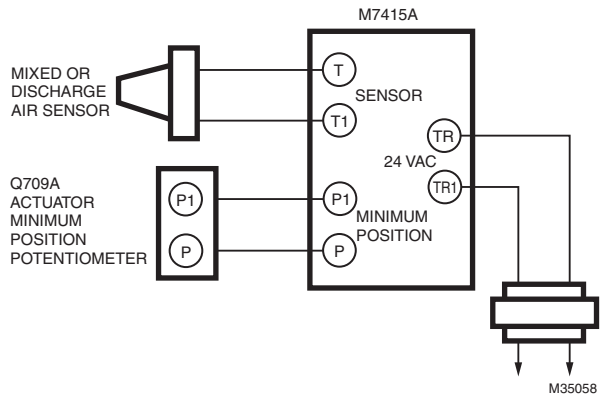


Fig. 4. Q709 with M7415 Dedicated Economizer Actuator.

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### Automation and Control Solutions

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63-2133—02 M.S. Rev. 10-13  
Printed in United States

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