

Basic Non Fail-Safe actuator for controlling dampers in typical commercial HVAC applications.

- Torque motor 9 in-lb [1 Nm]
- Nominal voltage AC 100...240 V
- Control On/Off, Floating point



## Technical data

|                        |  |  |
|------------------------|--|--|
| <b>Electrical data</b> | Nominal voltage                        | AC 100...240 V   |
|                        | Nominal voltage frequency              | 50/60 Hz   |
|                        | Nominal voltage range                  | AC 85...265 V  |
|                        | Power consumption in operation         | 2 W  |
|                        | Power consumption in rest position     | 1.5 W  |
|                        | Transformer sizing                     | 4.5 VA   |
|                        | Connection supply / control            | Connector Plug (Cable-side connector socket not included in scope of delivery) |
|                        | Connection plug                        | Molex Mini-Fit Jr. 39303035  |
|                        | Parallel operation                     | Yes (note the performance data)  |
| <b>Functional data</b> | Torque motor                           | 9 in-lb [1 Nm]   |
|                        | Direction of motion motor              | counter-clockwise rotation   |
|                        | Manual override                        | No   |
|                        | Angle of rotation                      | 0...185°   |
|                        | Angle of rotation note                 | adjustable with mechanical stop  |
|                        | Running Time (Motor)                   | 22 s / 90°   |
|                        | Noise level, motor                     | 35 dB(A)   |
|                        | Mechanical interface                   | Universal shaft clamp 6...12.7 mm  |
|                        | Position indication                    | No   |
| <b>Safety data</b>     | Protection class IEC/EN                | 0, basic insulation  |
|                        | Degree of protection IEC/EN            | IP20   |
|                        | Degree of protection NEMA/UL           | NEMA 1   |
|                        | Enclosure                              | UL Enclosure Type 1  |
|                        | EMC                                    | CE according to 2014/30/EU   |
|                        | Low voltage directive                  | CE according to 2014/35/EU   |
|                        | Certification IEC/EN                   | IEC/EN 60730-1 and IEC/EN 60730-2-14   |
|                        | UL Approval                            | cURus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1               |
|                        | Type of action                         | Type 1   |
|                        | Rated impulse voltage supply / control | 2.5 kV   |
|                        | Pollution degree                       | 2  |
|                        | Ambient humidity                       | Max. 95% RH, non-condensing  |
|                        | Ambient temperature                    | -22...122°F [-30...50°C]   |
|                        | Storage temperature                    | -40...176°F [-40...80°C]   |
|                        | Servicing                              | maintenance-free   |

**Technical data**

**Weight**    Weight    □

**Safety notes**


- This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- The device is not designed for applications where chemical influences (gases, fluids) are present or for utilization in corrosive environments in general.
- The device is considered a component and intended for installation in an equipment at the factory. The required protection against accidental contact with live parts must be provided by the damper or system manufacturer.
- Caution: Power supply voltage!
- Only authorized specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- The plug connections may only be used according to the installation instructions. The Molex plug connection has a mandatory locking mechanism that prevents unintentional disconnection. Operating the locking mechanism and the entire plug connection under voltage is not permitted.
- To calculate the torque required, the specifications supplied by the damper manufacturers concerning the cross-section and design, as well as the installation site and ventilation conditions, must be observed.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

**Product features**

|                                       |   |
|---------------------------------------|---|
| <b>Simple direct mounting</b>         | The actuator is mounted directly on the damper shaft (ø6...12.7 mm) with a universal shaft clamp and then secured with the anti-rotation clip, to prevent it from rotating.<br>The anti-rotation clip Z-ARCM is not included in the scope of delivery.  |
| <b>Adjustable angle of rotation</b>   | Adjustable angle of rotation with mechanical end stops.   |
| <b>High functional reliability</b>    | The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.  |
| <b>Restriction 3-point controller</b> | - For applications with 3-point open-loop control, a minimum pulse length of 1 sec. is recommended to increase position accuracy.<br>- For applications with 3-point closed-loop control, a pulse length of 0.5 sec. is possible to reduce oscillation. |

**Parts included**

End stop clip

**Accessories**

| Mechanical accessories | Description                            | Type   |
|------------------------|--|--------|
|                        | Anti-rotation clip, Multipack 20 pcs.  | Z-ARCM |
|                        | End stop clip, Multipack 20 pcs.       | Z-ESCM |
|                        | Protective covering, Multipack 20 pcs. | Z-PCUM |

Electrical installation



Supply from isolating transformer.

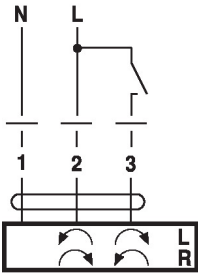
Parallel connection of other actuators possible. Observe the performance data.

Cable-side connector socket is not included in scope of delivery

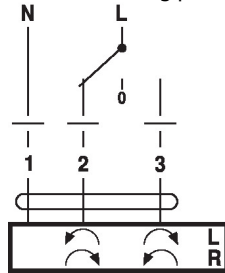
The plug connections may only be used according to the installation instructions. The Molex plug connection has a mandatory locking mechanism that prevents unintentional disconnection. Operating the locking mechanism and the entire plug connection under voltage is not permitted.

Wiring diagrams

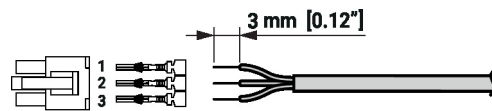
AC 230 V, on/off



AC 230 V, floating point



Molex PN 39014030 / 39000039 (0.5...1.0 mm<sup>2</sup>)



Dimensions

Stem length

|  |         |
|--|---------|
|  | Min. 32 |
|--|---------|

Clamping range

|          |            |          |
|----------|------------|----------|
|          |            |          |
| 6...12.7 | 6 / 8 / 10 | 6...12.7 |

