



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

- Torque motor 9 in-lb [1 Nm]
- Nominal voltage AC/DC 24 V
- Control modulating
- Position feedback 2...10 V



Technical data			
	Electrical data	Nominal voltage	AC/DC 24 V

Nominal voltage frequency	50/60 Hz	
Nominal voltage range	AC 19.228.8 V / DC 19.228.8 V	
Power consumption in operation	1.5 W	
Power consumption in rest position	0.5 W	
Transformer sizing	2.5 VA	
Connection supply / control	Connector Plug (Cable-side connector socket not included in scope of delivery)	
Connection plug	Molex Mini-Fit Jr. 39303045	
Parallel operation	Yes (note the performance data)	
Torque meter	O in th [1 Nm]	

Functional data

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Torque motor	9 in-lb [1 Nm]
Operating range Y	210 V
Input impedance	100 kΩ
Position feedback U	210 V
Position feedback U note	Max. 1 mA
Position accuracy	±5%
Direction of motion motor	counter-clockwise rotation
Direction of motion note	Y = 0 V: left end stop, position 0
Manual override	No
Angle of rotation	95°, fixed setting
Running Time (Motor)	22 s / 90°
Noise level, motor	35 dB(A)
Mechanical interface	Form fit 8x8 mm
Position indication	No
D L TEC/EN	TIL Cofee Envelope Wellen (CELV)

Safety data

Protection class IFC/FN	III, Safety Extra-Low Voltage (SELV)	
	III, Safety Extra-Low voltage (SELV)	
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	
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	0.8 kV	
Pollution degree	2	
Ambient humidity	Max. 95% RH, non-condensing	
Ambient temperature	-22122°F [-3050°C]	
Storage temperature	-40176°F [-4080°C]	
Servicing	maintenance-free	



Weight Weight 0.2 lb [0.09 kg]

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.
- Only authorized specialists may carry out installation. All applicable legal or institutional installation regulations must be complied 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, the design, the installation situation and the 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

Mode of operation

The actuator is connected with a standard control signal of 0...10 V and drives to the position defined by the control signal. Measuring voltage U serves for the electrical display of the damper position 0...100% and as control signal for other actuators.

Simple direct mounting

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. The anti-rotation clip Z-ARCM is not included in the scope of delivery.

Adjustable angle of rotation

Adjustable angle of rotation with mechanical end stops.

High functional reliability

The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.

Hidden synchronisation

If the actuator drives to the lower end stop during ongoing operation, it performs a synchronization of the control signal at DC 2 V. This ensures that the signal range also corresponds to the effective functional range in ongoing operation. The bottom end stop is actively approached as soon as the control signal is <DC 2.1 V. The actuator drives to the new specified position as soon as the control signal is once again >DC 2.3 V.

Parts included

End stop clip

Accessories

Mechanical accessories	Description	Туре
	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.

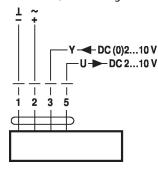
Cable-side connector socket is not included in scope of delivery

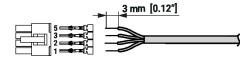
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Wiring diagrams

AC/DC 24 V, modulating

Molex PN 39014040 / 39000039 (0.5...1.0 mm²)





Dimensions



