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

- **Torque motor 180 in-lb [20 Nm]**
- **Nominal voltage AC/DC 24 V**
- **Control On/Off, Floating point**
- **NEMA 4X**

5-year warranty

Please note: Due to a supplier issue, certain NEMA 4 actuator covers will be supplied in gray instead of orange until further notice. This change ensures uninterrupted shipping and the same protective properties and product specifications.

Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 21.6...28.8 V
	Power consumption in operation	2.5 W
	Power consumption in rest position	0.5 W
	Transformer sizing	5.5 VA
	Electrical Connection	Screw terminal (for 26...14 AWG wire), 1/2" NPT conduit connector
	Overload Protection	electronic throughout 0...95° rotation
Functional data	Torque motor	180 in-lb [20 Nm]
	Direction of motion motor	selectable with switch 0/1
	Manual override	external push button
	Angle of rotation	Max. 95°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	90 s / 90°
	Running time motor note	constant, independent of load
	Running time motor variable	90 or 150 s
	Sound power level, motor	45 dB(A)
	Position indication	pointer
Safety data	Power source UL	Class 2 Supply
	Degree of protection NEMA/UL	NEMA 4X
	Housing	UL Enclosure Type 4X
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1, CSA C22.2 No 24-93, CE acc. to 89/336/EC
	Quality Standard	ISO 9001
	Ambient humidity	Max. 100% RH
	Ambient temperature	-22...122°F [-30...50°C]
	Ambient temperature note	-40...122°F [-40...50°C] for actuator with integrated heating
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free
Weight	Weight	1.9 lb [0.87 kg]
Materials	Housing material	UL94-5VA

Product features

Application

For on/off and floating point control of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer's specifications. The actuator is mounted directly to a damper shaft up to ¾" in diameter by means of its universal clamp, self-centered default.

Operation

The actuator is not provided with and does not require any limit switches, but is electronically protected against overload. The anti-rotation strap supplied with the actuator will prevent lateral movement.

The AMB24-3-T N4 provides 95° of rotation and a visual indicator indicates position of the actuator. When reaching the damper or actuator end position, the actuator automatically stops. The gears can be manually disengaged with a button on the actuator cover.

The AMB24-3-T N4 actuator uses a sensorless brushless DC motor, which is controlled by an Application Specific Integrated Circuit (ASIC). The ASIC monitors and controls the actuator's rotation and provides a digital rotation sensing (DRS) function to prevent damage to the actuator in a stall condition. Power consumption is reduced in holding mode.

Add-on auxiliary switches or feedback potentiometers are easily fastened directly onto the actuator body for signaling and switching functions.

For low ambient temperatures, the optional supplemental (-H) Heater add-on is available.

Typical specification

Floating point, on/off control damper actuators shall be electronic direct-coupled type, which require no crank arm and linkage and be capable of direct mounting to shaft up to ¾" diameter. Actuators shall have brushless DC motor technology and be protected from overload at all angles of rotation. Actuators shall have reversing switch and manual override on the cover. If required, actuators needing auxiliary switches, can be provided as an add-on accessory. Actuators with auxiliary switches must be constructed to meet the requirements for double insulation so an electrical ground is not required to meet agency listings. Run time shall be constant and independent of torque. Actuators shall be cULus listed, have a 5-year warranty, and be manufactured under ISO 9001 International Quality Control Standards. Actuators shall be as manufactured by Belimo.

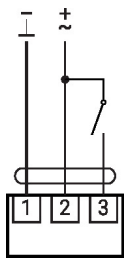
Accessories

Electrical accessories	Description	Type
	Auxiliary switch 2x SPDT add-on	S2A
		ZS-T

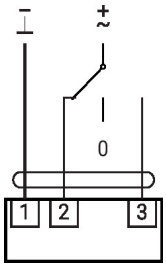
Factory add-on option only	Description	Type
	Heater, with adjustable thermostat	ACT_PACK_H

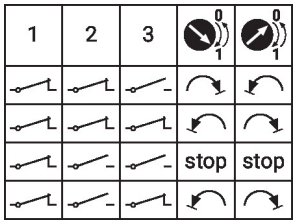
Electrical installation

AC/DC 24 V, on/off



AC/DC 24 V, 3-point





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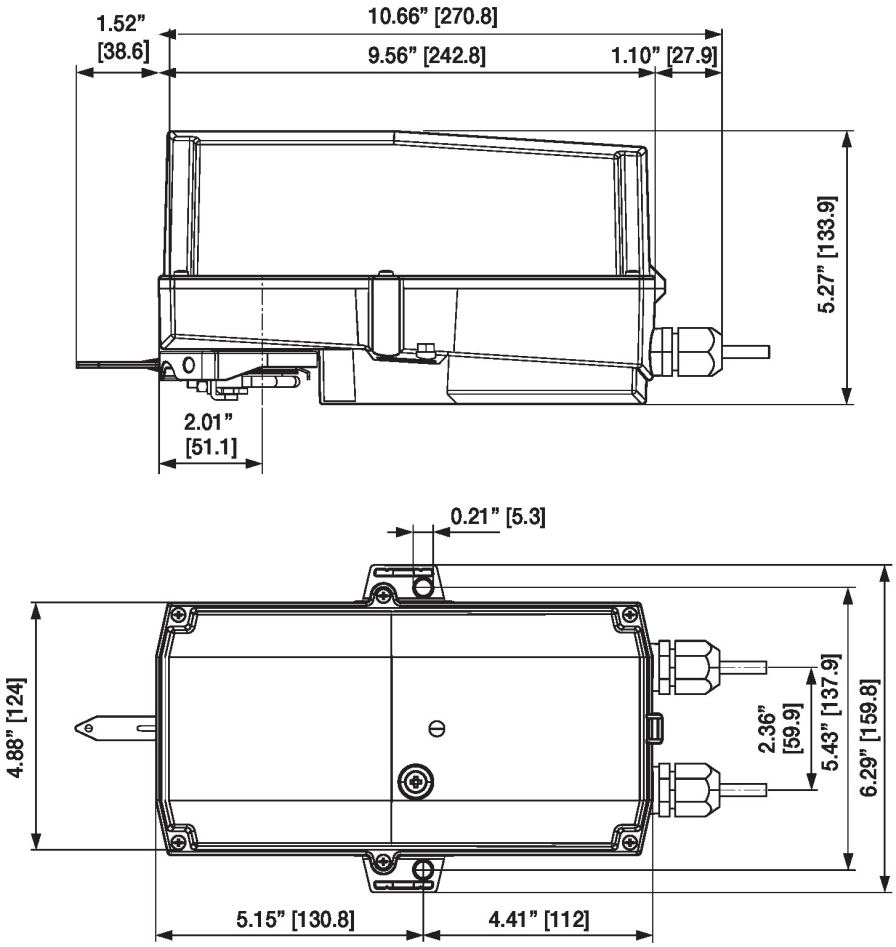
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