



# DA-010N024UX

10Nm Non Spring Return Damper Actuator



## Overview

The DA-0010Sx Series Electric Non-Spring Return Actuators provide control of dampers in HVAC Systems for 10Nm rated torque.

These bidirectional actuators do not require a damper linkage and are easily installed on round shafts or square shafts.

An optional line voltage auxiliary switch kit can be field installed to indicate an end-stop position or perform switching functions within the selected rotation range.

## Applications

- Constant or variable air volume installations for the control of HVAC dampers.

## Features & Benefits

- Automatic signal input detection model On/Off, Floating and Proportional increase availability at distributors and simplify retrofits.
- High speed actuator model allows applications in loop that require a quick response time.
- Optional auxiliary switch & potentiometer feedback provide line voltage capable single Pole Double-Throw (SPDT) switch and 140Ω, 1KΩ, 2KΩ or 10KΩ feedback potentiometric.
- Self-calibrating to adjust stroke, eliminating need of complex calibration procedure when adjusting stops.
- Electronic stall detection protects from overload at all angles of rotation. The actuator may be stalled anywhere in its rotation range without the need for mechanical end switches.
- Microprocessor-controlled brushless DC motor provides constant runtime independent of torque and increases life cycle by reducing wear.

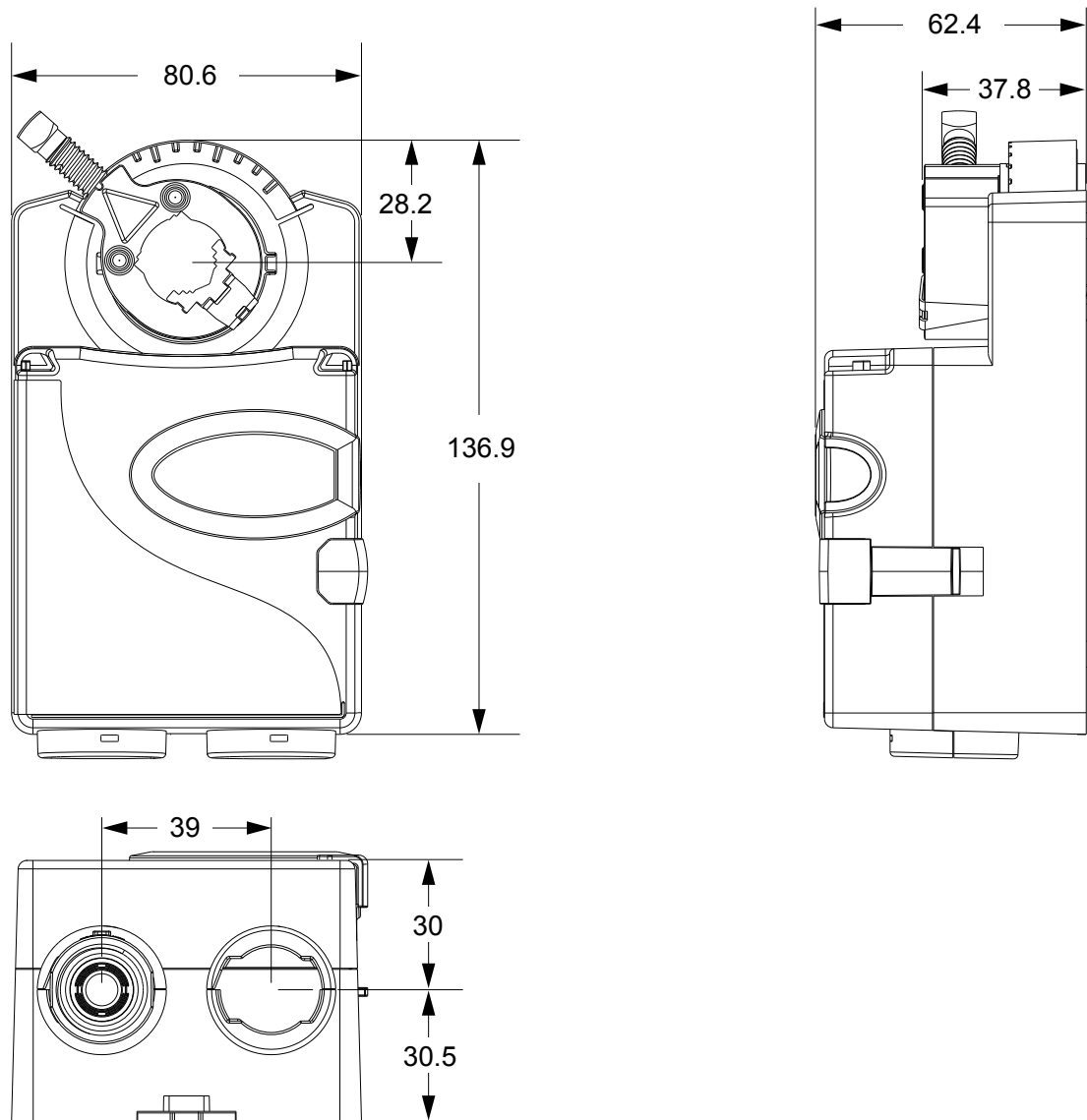
## Model Selection

Product Code	Power Supply	Control Type	Description
DA-010N024UX	24 Vac/Vdc	On/Off, Floating, and Proportional	10 Nm, 35 seconds run time

### Accessories (order separately)

Product Code	Description
M9300-1	Auxiliary Switch Kit (one single-pole, double-throw)
M9300-2	Auxiliary Switch Kit (two single-pole, double-throw)
M9000-322	NEMA 4x, IP66 Weathershield Kit for damper application

### Dimensions (in mm)



# Product Specifications

## Power requirements

- AC \_\_\_\_\_ 24 VAC (AC 19.2 to 28.8 V) at 50/60 Hz, \_\_\_\_\_ Class 2 (North America) or SELV (Europe), 6.2 VA running
- DC \_\_\_\_\_ 24 VDC (DC 21.6 to 26.4 V), \_\_\_\_\_ Class 2 (North America) or SELV (Europe), 1.9 W running

Transformer sizing requirements \_\_\_\_\_  $\geq 6.5$  VA

Feedback signal \_\_\_\_\_ 0 (2) to 10 VDC

Running torque \_\_\_\_\_ 10 Nm (90 lb·in)

Rotation range \_\_\_\_\_ Mechanically Limited 35° to 95°  $\pm 3^\circ$  in 5° increments

Rotation time \_\_\_\_\_ 35 seconds

Rotation time autocalibration \_\_\_\_\_ 35 seconds

Cycles \_\_\_\_\_ 100,000 full stroke cycles; 2,500,000 repositions

Audible noise \_\_\_\_\_ <40 dBA at 1 m (39-13/32 in.)

Electrical connections \_\_\_\_\_ 1.2 m (48 in.) Halogen Free Cable  
\_\_\_\_\_ with 0.82 mm<sup>2</sup> (18 AWG) conductors and 6 mm (0.25 in.) ferrule ends

## Ambient conditions

Operating temperature \_\_\_\_\_ -30 to 60 °C (-22 to 140 °F), 95% RH, non-condensing

Storage temperature \_\_\_\_\_ -40 to 85 °C (-40 to 185 °F), 95% RH, non-condensing

Enclosure \_\_\_\_\_ IP54

Shipping weight \_\_\_\_\_ 0.9 kg (2 lbs)

Compliances \_\_\_\_\_ CE certification

\_\_\_\_\_ EMC Directive and Low Voltage Directive compliant

## On/Off and Floating modes

Input signal/adjustments \_\_\_\_\_ 19.2 to 28.8 VAC at 50/60 Hz  
\_\_\_\_\_ or 24 VDC  $\pm 10\%$  Class 2 (North America) or SELV (Europe)

Control impedance \_\_\_\_\_ 4.7K ohm

## Proportional mode

Input signal/adjustments \_\_\_\_\_ 0 (2) to 10 VDC or 0 (4) to 20 mA  
\_\_\_\_\_ with field furnished 500 Ohm 1/4 W resistor  
\_\_\_\_\_ Offset: 0 to 10 VDC Span: 2 to 10 VDC

Control impedance \_\_\_\_\_ 100K ohm