



MD40A-24

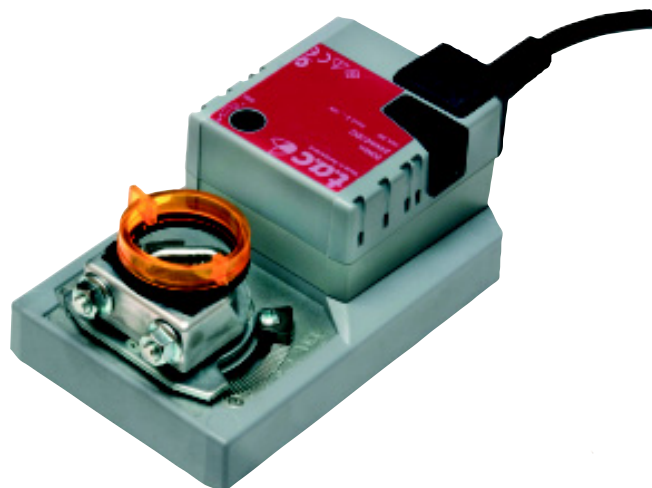
G-30-76

Modulating Damper Actuator  
Action 40 Nm (360 in-lb)

6 February 2006

MD40A-24 damper actuators for operating air control dampers in ventilation and air-conditioning systems for building services installations

- For air control dampers up to approx. 8 m<sup>2</sup> (9.6 yard<sup>2</sup>)
- Torque 40 Nm (360 in-lb)
- Nominal voltage AC/DC 24 V
- Control: Modulating 0 – 10 V
- Position feedback: 2 – 10 V



### TECHNICAL SPECIFICATION

Part number ..... 875-1039-000  
 Power supply ..... 24 V AC  $\pm 20\%$ , 50–60 Hz,  
 24 V DC  $\pm 20\%$

**Power consumption:**

In operation ..... 4 W @ nominal torque  
 At rest ..... 2 W  
 For wire sizing ..... 6.5 VA

Connection cable ..... 1 m (3.3 ft), 4 $\times$ 0.75 mm<sup>2</sup> (AWG 18)

Control signal X ..... 0–10 V DC

Input resistance ..... 100 k Ohm

Operating range ..... 2–10 V DC (for set angle of rotation)

Synchronisation tolerance .....  $\pm 5\%$

Position feedback Y ..... 2–10 V DC (max. 1 mA)

Direction of rotation ..... Reversible with switch 0 / 1  
 at switch position 0 ↺ resp. 1 ↻

Angle of rotation ..... max. 95°  
 (adjustable by mechanical stops)

Torque ..... min. 40 Nm (360 in-lb) @ nominal voltage

Running time ..... 150 s

Position indication ..... mechanical

Manual override ..... Gearing latch disengaged with  
 pushbutton, self-resetting, manual locking

**Standards conformity:**

EMC, emission ..... SS EN 50081-1

EMC, immunity ..... SS EN 50082-1

Protection class ..... III Safety extra-low voltage

Enclosure rating ..... IP 54

Ambient humidity ..... 95% r.H (EN 60730-1)

**Ambient temperature:**

Operation ..... –30 to +50 °C (–22 to +122 °F)

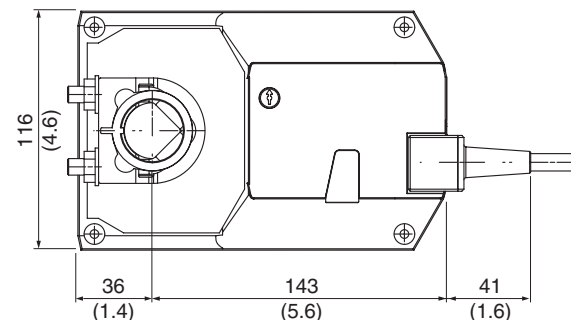
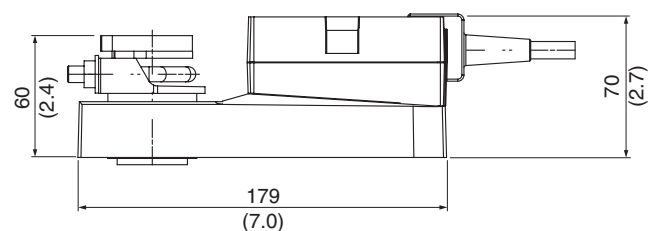
Storage ..... –40 to +80 °C (–40 to +176 °F)

Sound power level ..... max. 45 dB (A)

Maintenance ..... Maintenance-free

Weight ..... Approx 1,7 kg (3.8 lb.)

**Dimensions in mm (inches)**



Damper spindle	Length mm (in.)	Ø mm (in.)
Clamp on top	min. 42 (1.65)	14 ... 26 (0.55 ... 1.02)
Clamp on bottom	min. 20 (0.78)	14 ... 26 (0.55 ... 1.02)

## FUNCTION

### Mode of operation

The actuator is controlled by means of a standard control signal DC 2–10 V. It opens to the position dictated by this signal. The measuring voltage Y allows the damper position (0 ... 100%) to be electrically indicated and serves as a follow-up control signal for other actuators.

### Simple direct mounting

Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from rotating.

### Manual override

Manual operation is possible with the self-resetting pushbutton (the gearing latch remains disengaged as long as the pushbutton is pressed or detented).

### Adjustable angle of rotation

Adjustable angle of rotation with mechanical end stops.

### High functional reliability

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

## WIRING

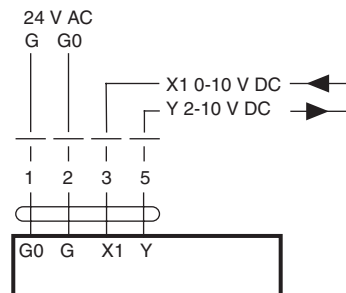


Connection via safety isolating transformer.

Measuring voltage Y for position indication or as master-slave signal.

Parallel connection of several actuators is possible. Power consumption must be observed.

### MD40A-24



## ACCESSORIES

Please refer to data sheet G-30-90 “Accessories Damper Actuators” (part.no. 0-003-2251).

## SAFETY NOTES



- The damper actuator is not allowed to be used outside the specified field of application, especially in aircraft.
- 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 cable must not be removed from the device.
- When calculating the required torque, the specifications supplied by the damper manufacturers (cross section, design, installation site), and the air flow conditions must be observed.



- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.