

# MD20B-24/-230



## On/Off or 3-point 24 V AC/230 V AC Damper Actuator 20 Nm (180 in-lb)

MD20B series damper actuators for operating air control dampers in ventilation and air-conditioning systems for building services installations

- For air control dampers up to approx. 4 m<sup>2</sup> (4.8 yard<sup>2</sup>)
- Torque 20 Nm (180 in-lb)
- Nominal voltage AC/DC 24 V or 230 V
- Control: On/Off or 3-point

## SPECIFICATIONS

### Part numbers

MD20B-230 . . . . . 875-1021-000  
 MD20B-24 . . . . . 875-1025-000

### Power supply

MD20B-24 . . . . . 24 V AC ±20%, 50–60 Hz,  
 24 V DC ±20%  
 MD20B-230 . . . . . 230 V AC –56% to +15%, 50–60 Hz

### Power consumption

#### In operation

MD20B-24 . . . . . 2 W @ nominal torque  
 MD20B-230 . . . . . 2.5 W @ nominal torque

#### At rest

MD20B-24 . . . . . 0.2 W  
 MD20B-230 . . . . . 0.6 W

### For wire sizing

MD20B-24 . . . . . 4 VA  
 MD20B-230 . . . . . 6 VA  
 Connection cable . . . . . 1 m (3.3 ft), 3×0.75 mm<sup>2</sup>  
 (AWG 18)

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

Torque . . . min. 20 Nm (180 in-lb) @ nominal voltage  
 Running time . . . . . 150 s  
 Direction of rotation . . . . . Reversible with switch  
 Position indication . . . . . mechanical

### Standards conformity

EMC . . . . . 2004/108/EC  
 LVD . . . . . 2006/95/EC (230 V only)

### Protection class

MD20B-24 . . . . . III Safety extra-low voltage  
 MD20B-230 . . . . . II Totally insulated

Enclosure rating . . . . . IP 54  
 Ambient humidity . . . . . 95% r.H (EN 60730-1)

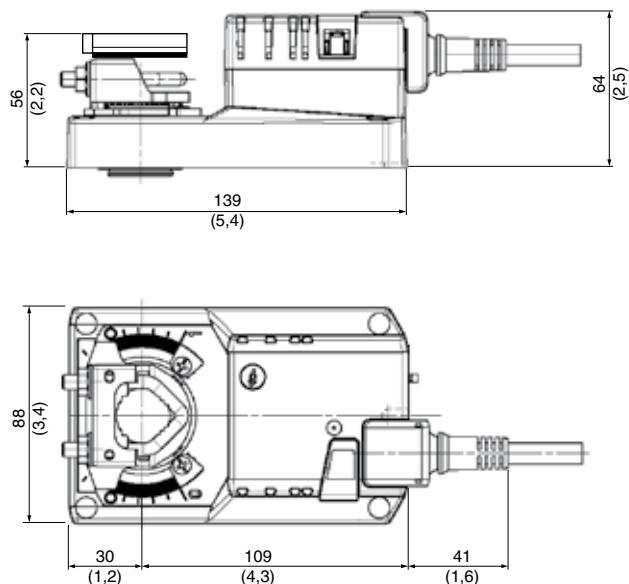
### Ambient temperature

Operation . . . . . –30 to +50 °C (–22 to +122 °F)  
 Storage . . . . . –40 to +80 °C (–40 to +176 °F)  
 Sound power leve. . . . . max. 45 dB (A)  
 Maintenance . . . . . Maintenance-free

### Weight

MD20B-24 . . . . . Approx 1 kg (2.2 lb.)  
 MD20B-230 . . . . . Approx 1 kg (2.2 lb.)

## DIMENSIONS mm (in)



Damper spindle (in.)	Length mm (in.)	Ø $\square$ mm
Clamp on top	min. 48 (1.89)	10 ... 20 (0.39 ... 0.78)
Clamp on bottom	min. 20 (0.78)	10 ... 20 (0.39 ... 0.78)

## FUNCTION

### 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.

## SAFETY NOTES



**The damper actuator is not allowed to be used outside the specified field of application, especially in aircraft.**

**Caution: 230 V voltage !**

**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 cables 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.**



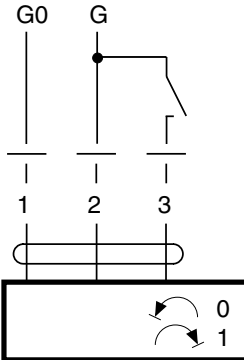
**The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.**

## WIRING

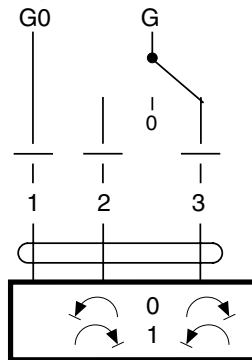


Direction of rotation

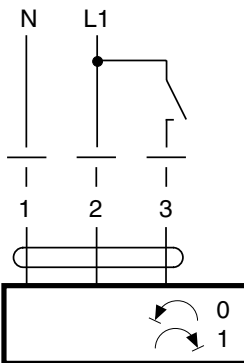
### On/Off control



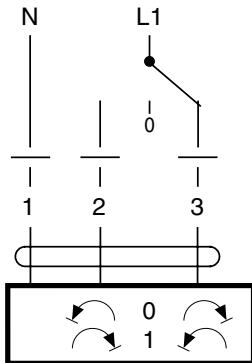
### 3-point control



### On/Off control



### 3-point control



## WIRING

### MD20B-230



**Caution: 230 V voltage!**

Other actuators can be connected in parallel. Please not the performance data.

### MD20B-24



**Connection via safety isolating transformer.**

Other actuators can be connected in parallel. Please not the performance data.

## ACCESSORIES

Please refer to data sheet G-30-90

“Accessories Damper Actuators”  
(part. no. 0-003-2251).