



# DB-DM24FN

Damper actuators with spring return, 20 Nm

*Well-suited for applications with security dampers used as antifreeze, antismoke or for sealing in the hygienic-sanitary field.*

- Torque 20 Nm
- Continuous control signal 0(2)...10 VDC, 0(4)...20 mA
- Supply voltage 24 V AC/DC
- For dampers up to 4 m<sup>2</sup> in size

## Function

Applying the power supply to BU+BN (1+2) and a reference signal Y to BK (3) of 0(2)...10VDC, moves the actuator to position 1. The actual damper position 0...100% is a feedback signal U for example to share the signal with other actuators. If the power supply is interrupted the damper is moving back to the position 0 by spring force. In the position 0, the actuator still provides the rated torque. The actuator is overload-proof, requires no limit switches and stops automatically when the end position is reached.

## Installation

Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from rotating. DIP-Switches are located under the case cover.

## Manual override

The actuator can be operated manually while the power supply is disconnected. With the supplied lever the position of the damper can be varied and locked. Applying the voltage automatically unlocks the damper.

## Auto-calibration on angular range < 90°

- Disconnect the power supply
- Set the mechanical end stops
- Connect the actuator to the power supply
- Put DIP-Switch 4 to "ON"
- The actuator is adapting on the angular range
- Put DIP-Switch 4 to "Off"
- “Y” and “U” signals now refer to the adapted angular range

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DB-DM24FN

## Technical data

Supply voltage	24 V AC / DC
Supply voltage range	19...29 V AC / DC
Power consumption (motion)	8 W
Power consumption (standby)	2 W
Wire sizing	11,5 VA
Control	Continuous 0(2)...10 VDC / Ri > 100 kΩ, 0(4)...20 mA / Rext. = 500Ω
Position feedback	0(2)...10VDC, max. 5 mA
Connection motor	Cable 1000 mm, 4 x 0,75 mm <sup>2</sup> (halogen free)
Torque motor	>20 Nm
Torque spring	>20 Nm
Damper size	up to 4 m <sup>2</sup>
Synchronised speed	± 5%
Direction of rotation	Selected by mounting
Angle of rotation	0°...max.+95°. Can be limited with adjustable mechanical end stop min 35°. Adaption of operating range to match the mechanical angle of rotation.
Running time motor	<150 s / 90°
Running time spring	<20 s / 90°
Sound power level motor	< 35 dB(A)
Sound power level spring	< 65 dB(A)
Shaft coupling	clamp ∅ 9-18 mm / Ø 9-26 mm
Service life	>60'000 cycles (0° - 95° - 0°) >1'000'000 partial cycles (max. ±5°)
Protection class	III
Isolation class	IP54 (cable downwards)
Rated impulse voltage	0,8 kV (EN 60730-1)
Control pollution degree	3 (EN 60730-1)
Ambient temperature	-30°C...+50°C
Storage temperature	-30°C...+80°C
Ambient humidity	5...95% r.H. non condensing
Maintenance	Maintenance free
Weight	2400 g

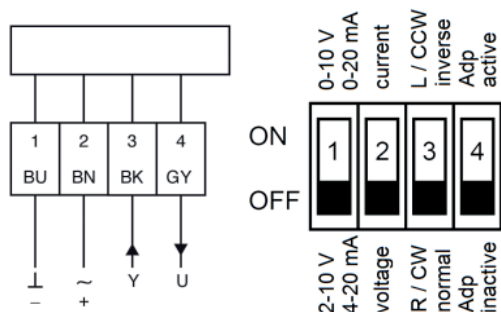
## CE

**EMC emissions & immunity standards:** This product conforms to the requirements of the EMC Directive 2004/108/EG

**Low Voltage Directive (LVD) standards:** This product conforms to the requirements of the European Low Voltage Directive (LVD) 2006/95/EG

**RoHS:** This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council

## Wiring / DIP-Switch / Safety remarks



-Connect via safety isolation transformer

-It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.

-The device may only be opened at the manufacturer's site.

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

-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.

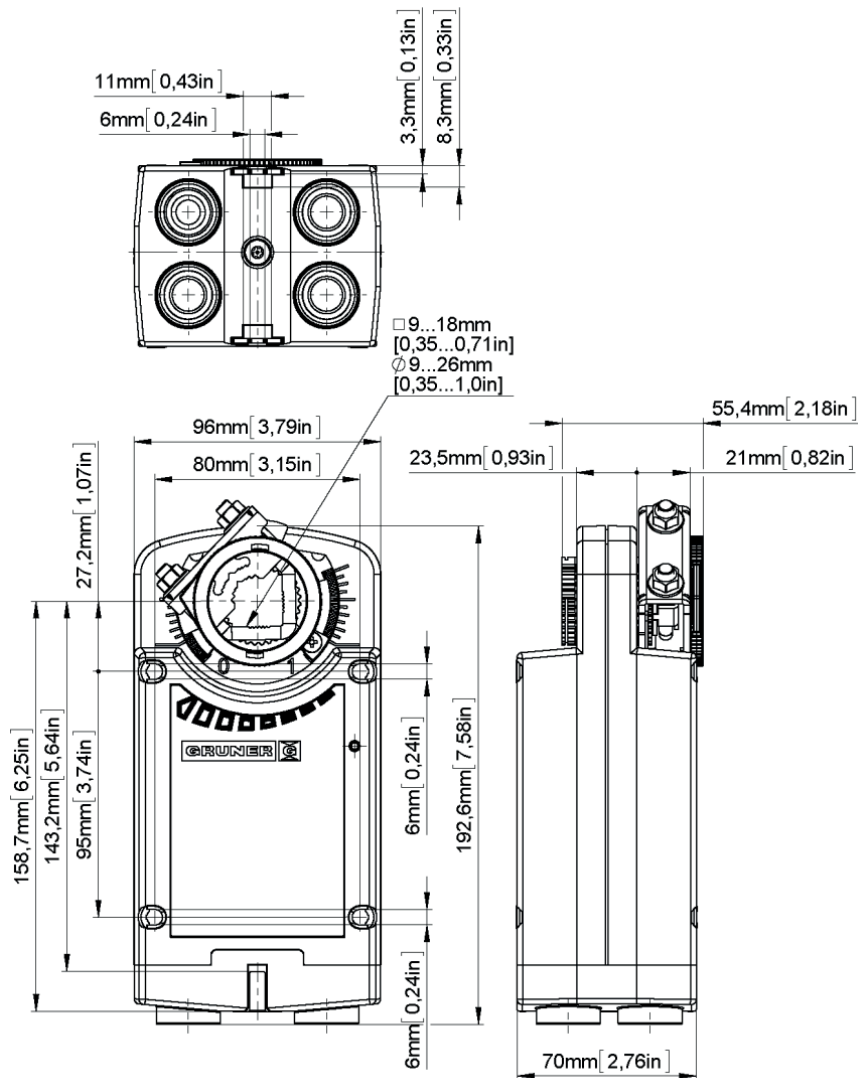
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## Dimensions



Measurements in mm

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