BELIMO

Technical data sheet CM24G-SR-..

Modulating damper actuator for operating air control dampers in ventilation and air-conditioning systems for building services installations

- **For air dampers up to approx. 0.4 m²**
- **Torque 2 Nm**
- **Nominal voltage AC/DC 24 V**
- **Control: modulating DC 0 ... 10 V**
- **Position feedback DC 2 ... 10 V**
- **Degree of protection IP66**

Type overview

Type	Direction of rotation
CM24G-SR-L	Y = 0 V left end stop position 0
CM24G-SR-R	Y = 0 V right end stop position 0

Technical data

Electrical data	Nominal voltage		AC 24 V, 50/60 Hz DC 24 V
	Nominal voltage range		AC/DC 19.2 ... 28.8 V
	Power consumption	In operation	1 W @ nominal torque
		At rest	0.5 W
		For wire sizing	2 VA
	Connection		Cable 1 m, 4 x 0.75 mm²
Functional data	Torque (nominal torque)		Min. 2 Nm @ nominal voltage
	Control	Control signal Y	DC 0 ... 10 V, typical input impedance 100 kΩ
		Operating range	DC 2 ... 10 V
	Position feedback (Measuring voltage U)		DC 2 ... 10 V, max. 1 mA
	Posotion accuracy		±5%
	Direction of rotation		See «Type overview»
	Manual override		Gear disengagement with magnet
	Angle of rotation		Max. 95°∢, limited on both sides by means of adjustable, mechanical end stops
	Running time		75 s / 90°∢
	Sound power level		Max. 35 dB (A)
	Position indication		Mechanical, pluggable (with integrated magnet for gear disengagement)
Safety	Protection class		**III** Safety extra-low voltage / UL Class 2 Supply
	Degree of protection		IP66 NEMA2, UL Enclosure Type 2
	EMC		CE according to 2004/108/EC
	Certification		cULus according to UL 60730-1A and UL 60730-2-14 and CAN/CSA E60730-1:02 Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14
	Mode of operation		Type 1 (EN 60730-1)
	Rated impulse voltage		0.8 kV (EN 60730-1)
	Control pollution degree		3 (EN 60730-1)
	Ambient temperature		–30 ... +50°C
	Non-operating temperature		–40 ... +80°C
	Ambient humidity		95% RH, non-condensating (EN 60730-1)
	Maintenance		Maintenance-free
Dimensions / Weight	Dimensions		See «Dimensions» on page 2
	Weight		Approx. 220 g

Notes

- To guarantee IP66 protection, the device must be mounted on the rear of the damper housing without a gap.
- If the device is mounted on the front of the damper housing (i.e. turned 180°∢), it only has IP54 protection.

Safety notes

⚠

- **The actuator is not allowed to be used outside the specified field of application, especially in aircraft or any other form of air transport.**
- **Assembly must be carried out by trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.**
- **The mechanical end stops for restricting the angle of rotation are only allowed to be removed for adjustment purposes. It is essential for them to be in place during operation.**

Safety notes

(Continue)

- **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.**
- **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.**

Product features

Mode of operation

The actuator is controlled by means of a standard control signal DC 0 ... 10 V. It opens to the position dictated by this signal. The measuring voltage U 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 (∅ 6 ... 12.7 mm). The actuator is then secured with the anti-rotation strap supplied, to prevent it from rotating.

Manual override

Manual override with magnet possible (the gear is disengaged as long as the magnet adheres to the symbol Ⓜ. The magnet for gear disengagement is integrated in the position indicator.

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.

Home position

When the supply voltage is switched on for the first time and after every voltage interruption, the synchronisation process is started and the actuator travels to home position (Y = 0 V).

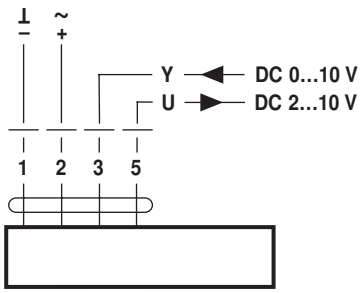
Type	Home position
CM24G-SR-L	Y = 0 V ccw Left stop
CM24G-SR-R	Y = 0 V cw Right stop

The actuator then moves into the position defined by the control signal.

Electrical installation

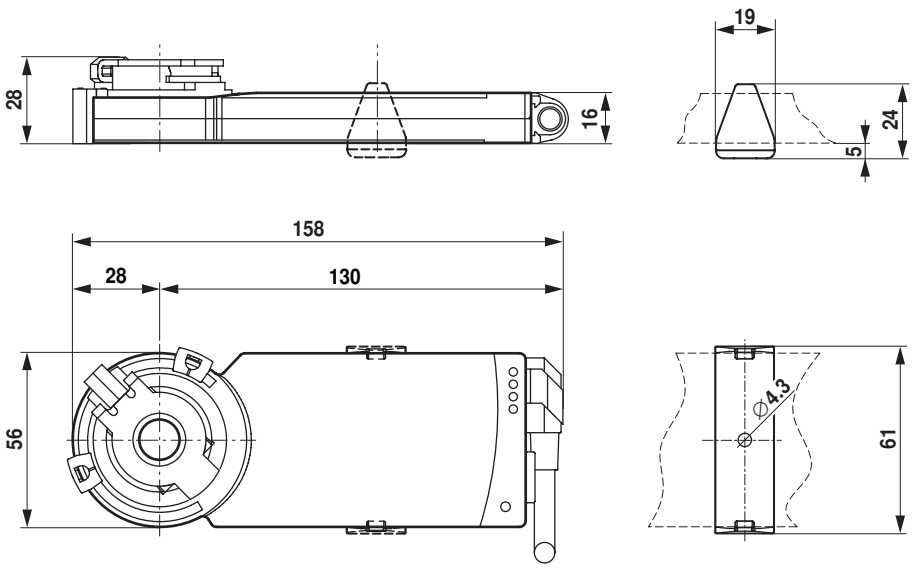
Wiring diagram

Notes
- Connection via safety isolating transformer.
- Other actuators can be connected in parallel. Please note the performance data.



Dimensions [mm]

Dimensional drawings



Damper spindle	Length	
	≥32	6 ... 12.7

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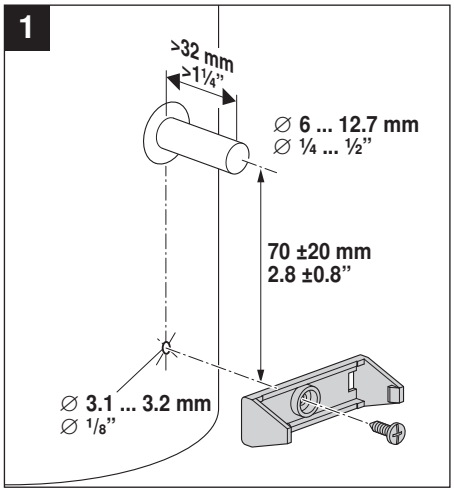

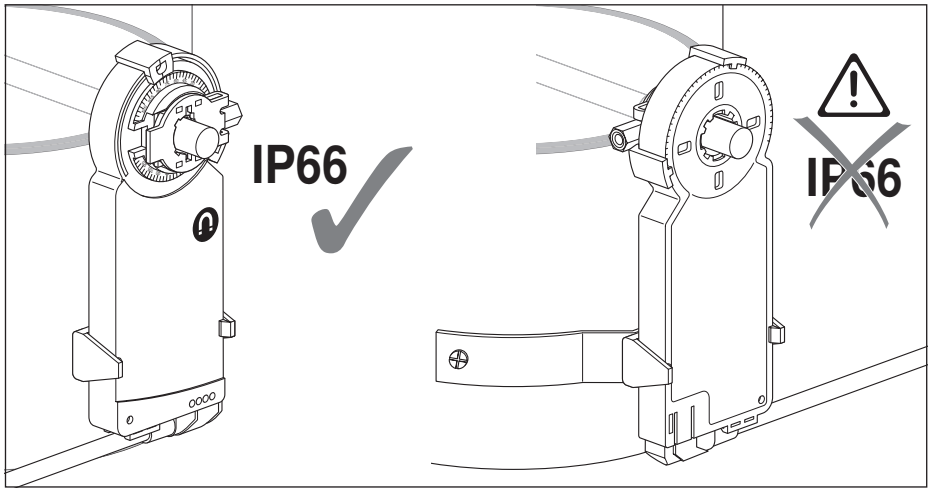

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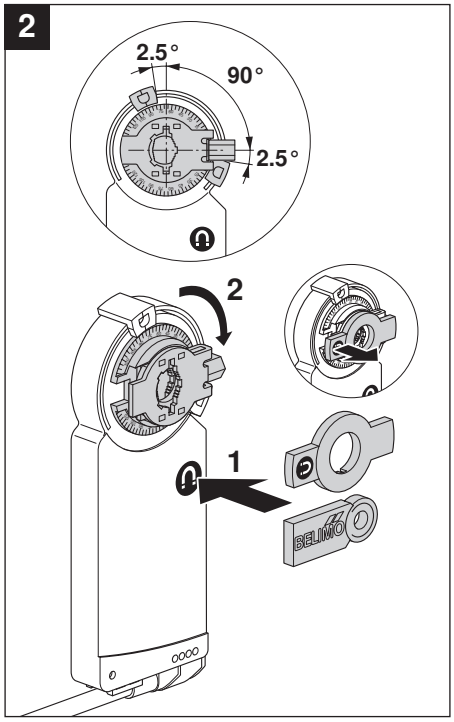

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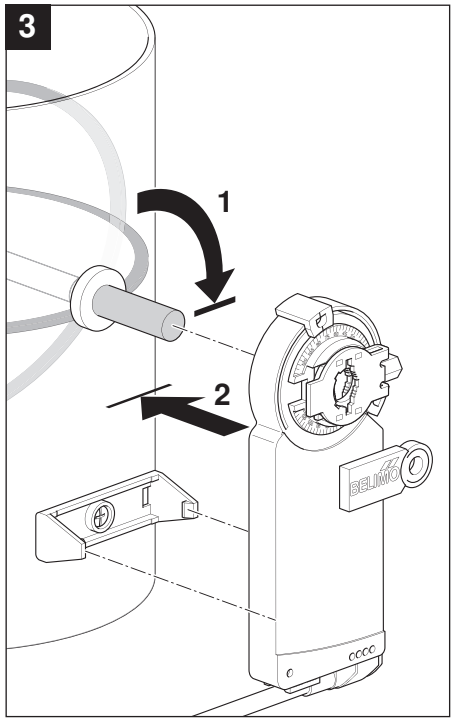

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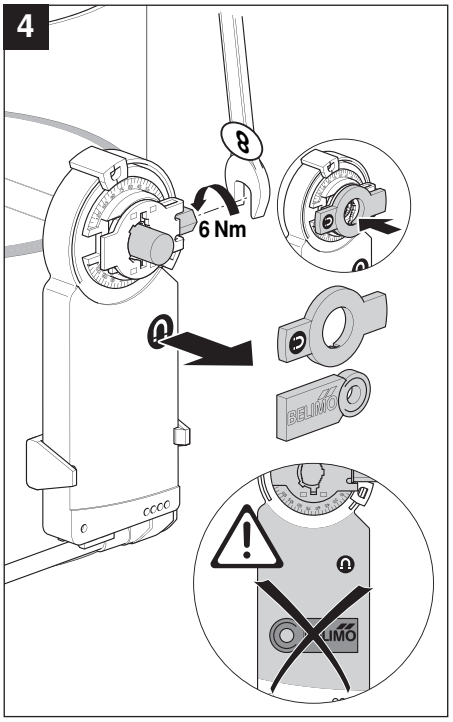

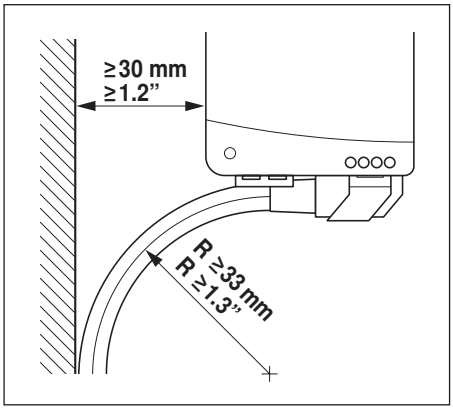

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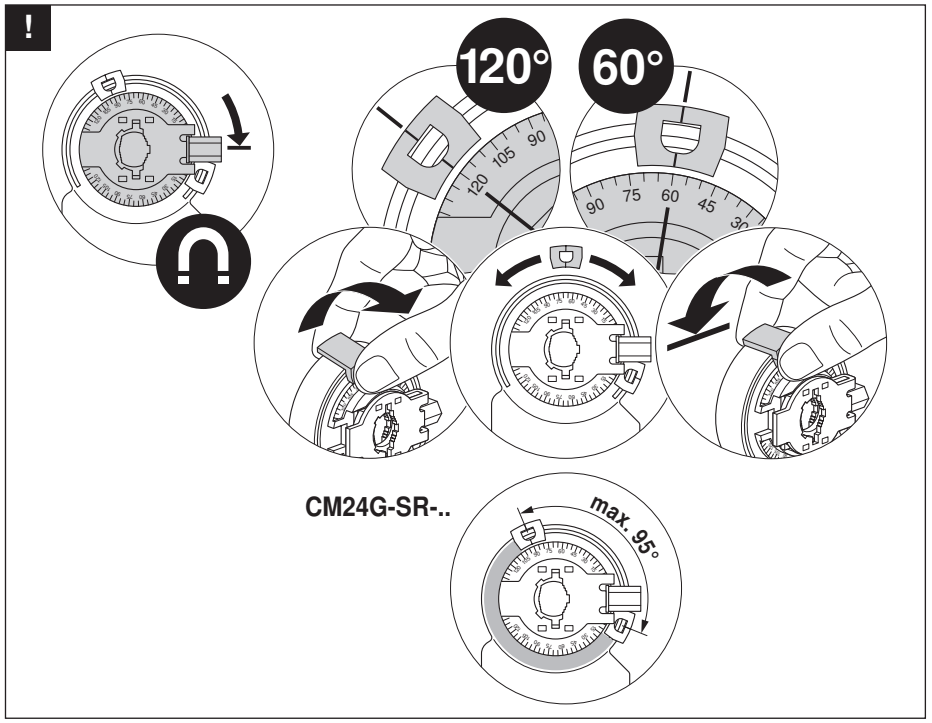
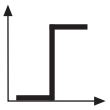
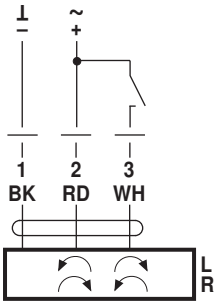




AC 24 V / DC 24 V



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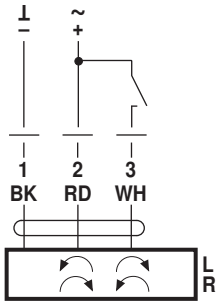

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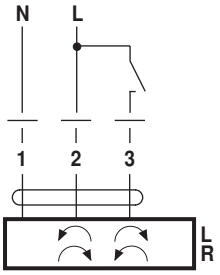
AC 100 ... 240 V ⚠



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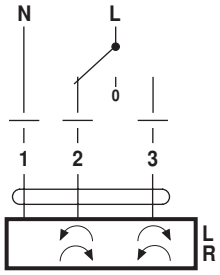

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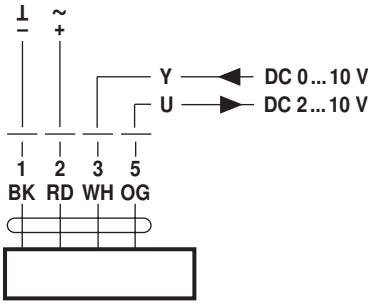
AC 24 V / DC 24 V



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