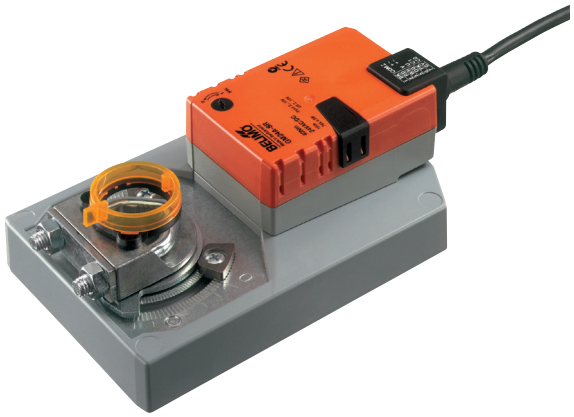
BELIMO

Technical data sheet GM24A-SR

Modulating damper actuator for adjusting dampers in technical building installations

- **Air damper size up to approx. 8 m²**
- **Nominal torque 40 Nm**
- **Nominal voltage AC/DC 24 V**
- **Control modulating DC 0 ... 10 V**
- **Position feedback DC 2...10 V**



Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 19.2...28.8 V
	Power consumption in operation	4.5 W
	Power consumption at rest	2 W
	Power consumption for wire sizing	6.5 VA
	Sensor element	Cable 1 m, 4 x 0.75 mm²
Functional data	Torque motor	min. 40 Nm
	Control positioning signal Y	DC 0...10 V
	Control positioning signal Y note	Typical input impedance 100 kΩ
	Control operating range	DC 2...10 V
	Position feedback (measuring voltage U)	DC 2...10 V
	Position feedback measuring voltage U note	Max. 1 mA
	Position accuracy	±5%
	Direction of rotation motor	Can be selected with switch 0/1
	Running direction	Y = 0 V: At switch position 0 (counter-clockwise rotation) / 1 (clockwise rotation)
	Manual override	Gear disengagement with push-button, can be locked
	Angle of rotation	max. 95°
	Running time motor	150 s / 90°
	Sound power level motor max.	45 dB(A)
	Spindle driver	Universal spindle clamp reversible 12...26 mm
	Position indication	Mechanical, pluggable
Safety	Protection class IEC/EN	III Safety extra-low voltage
	Protection class UL	UL Class 2 Supply
	Degree of protection IEC/EN	IP54 in all mounting positions
	Degree of protection NEMA/UL	NEMA 2, UL Enclosure Type 2
	Electromagnetic compatibility	CE according to 89/336/EC
	Certification IEC/EN	Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14
	Certification UL	cULus according to UL 60730-1A, UL 60730-2-14 and CAN/CSA E60730-1:02
	Mode of operation	Type 1
	Rated current voltage motor	0.8 kV
	Control pollution degree	3
	Ambient temperature	-30...50°C
	Non-operating temperature	-40...80°C
	Ambient humidity	95% r.h., non-condensing
	Maintenance	Maintenance-free
Weight	Weight approx.	1.7 kg

Safety notes

- The actuator is not allowed to be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.

Safety notes

- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- 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 torque required, the specifications supplied by the damper manufacturers (cross-section, construction, place of installation), and the ventilation 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 connected with a standard modulating signal of DC 0 ... 10V and travels to the position defined by the positioning signal. Measuring voltage U serves for the electrical display of the damper position 0 ... 100% and as slave control signal for other actuators.

Direct mounting
Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with a universal mounting bracket to prevent the actuator from rotating.

Manual override
Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).

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

Adjustable angle of rotation
Adjustable angle of rotation with mechanical end stops.

Accessories

Electrical accessories

Description	Type
Auxiliary switch, add-on, 1 x SPDT	S1A
Auxiliary switch, add-on, 2 x SPDT	S2A
Feedback potentiometer 140 Ohm, add-on	P140A
Feedback potentiometer 200 Ohm, add-on	P200A
Feedback potentiometer 500 Ohm, add-on	P500A
Feedback potentiometer 1 kOhm, add-on	P1000A
Feedback potentiometer 2.8 kOhm, add-on	P2800A
Feedback potentiometer 5 kOhm, add-on	P5000A
Feedback potentiometer 10 kOhm, add-on	P10000A
Range controller for wall mounting, adjustable electron. Min./max. angle of rotation limitation	SBG24
Positioner for wall mounting, range 0...100%	SGA24
Positioner for front-panel mounting, range 0...100%	SGF24
Positioner in a conduit box, range 0...100%	SGE24
Positioner for wall mounting, range 0...100%	CRP24-B1
Signal converter voltage/current, supply AC/DC 24V	Z-UIC
Digital position indicator for front-panel mounting, 0...99%, front mass 72 x 72 mm	ZAD24

Mechanical accessories

Description	Type
Actuator arm, for standard spindle clamp (reversible) K-SA	AH-GMA
Mounting kit for linkage operation, GM..A	ZG-GMA
Base plate extension from GM..A to GM..	Z-GMA
Straight ball joint with M8, suitable for damper crank arms KH8	KG10A
Damper crank arm, for damper spindles	KH10

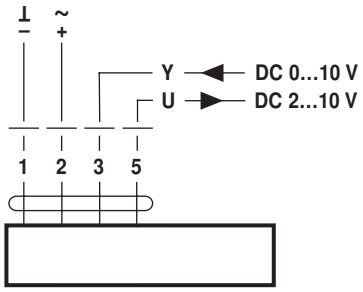
Electrical installation

Notes

- Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Observe the performance data.

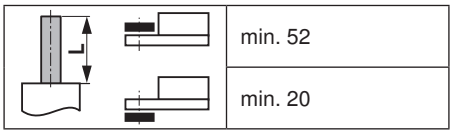
Wiring diagrams

AC/DC 24 V, modulating



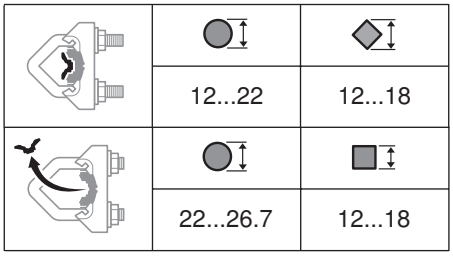
Cable colours:
1 = black
2 = red
3 = white
5 = orange

Dimensions [mm]



min. 52	
min. 20	

Clamping ranges



12...22	12...18
22...26.7	12...18

Dimensional drawings