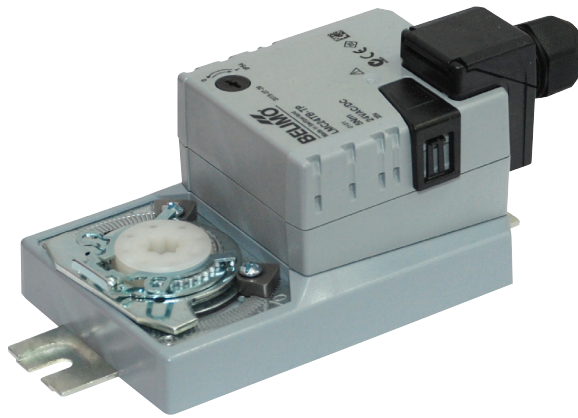


Damper actuator for adjusting dampers used in railway HVAC systems.

- Air damper size up to approx. 1 m²
- Nominal torque 5 Nm
- Nominal voltage DC 24 V
- Control Open-close, 3-point
- Running time motor 35 s
- Spindle driver Form fit 8x8 mm
- With spring clamp terminals


Technical data

Electrical data	Nominal voltage	DC 24 V
	Nominal voltage range	DC 16.8...30 V
	Power consumption in operation	2.5 W
	Power consumption in rest position	0.2 W
	Connection supply / control	Terminals 1.5 mm ² (cable Ø 4...10 mm, 3-wire)
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 5 Nm
	Direction of motion motor	selectable with switch 0 (ccw rotation) / 1 (cw rotation)
	Manual override	with push-button, can be locked
	Angle of rotation	Max. 95°
	Angle of rotation note	can be limited on both sides with adjustable mechanical end stops
	Running time motor	35 s / 90°
	Sound power level motor	45 dB(A)
	Spindle driver	Form fit 8x8 mm
	Position indication	No
	Safety	Protection class IEC/EN
Degree of protection IEC/EN		IP54
EMC		CE according to 2014/30/EU
Certification IEC/EN		IEC/EN 60730-1 and IEC/EN 60730-2-14
Railway standards		EN 45545, HL3, R24 EN 50155, S2, C2 EN 61373, Cat. 1, Class B EN 60068-2-1, EN 60068-2-2, EN 60068-2-30 EN 50121-3-2
Mode of operation		Type 1
Rated impulse voltage supply / control		0.8 kV
Control pollution degree		3
Ambient temperature		-40...70°C, (EN 50155, TX)
Ambient temperature note		up to 85° for brief periods, 10 minutes
Non-operating temperature	-40...80°C	
Ambient humidity	95% r.H. (EN 50155)	
Maintenance	Maintenance-free	
Weight	Weight	0.68 kg
Housing colours	Lid colour	grey
	Housing base	grey

Safety notes



- The device must not be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea)water, snow, ice, insolation or aggressive gases interfere directly with the actuator and that is ensured that the ambient conditions remain at any time within the thresholds according to the data sheet.
- 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.
- To calculate the torque required, the specifications supplied by the damper manufacturers concerning the cross-section, the design, the installation site and the ventilation conditions must be observed.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product features

Simple direct mounting	Simple direct mounting on the damper spindle with form-fit hollow spindle. For screw fitting to the application the actuator is supplied with two fastening clips, one on each short side.
Manual override	Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).
Adjustable angle of rotation	Adjustable angle of rotation with mechanical end stops.
High functional reliability	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.

Accessories

	Description	Type
Mechanical accessories	Form fit insert 10x10 mm, for NM..A / SM..A	ZF10-NSA
	Form fit insert 12x12 mm, for NM..A / SM..A	ZF12-NSA
	Form fit insert 15x15 mm	ZF15-NSA
	Form fit insert 16x16 mm, for NM..A / SM..A	ZF16-NSA
	Position indication for LM..A, NM..A, SM..A, GM..A	Z-PI
	Terminal protection IP54	Z-TP
	Cable sleeve for Ø 4-6 mm, suitable for strain relief NG	43235-00001
	Strain relief bushing (cable sleeve) for Ø 6-8 mm, suitable for strain relief NG	43235-00002
	Cable sleeve for Ø 8-10 mm, suitable for strain relief NG	43235-00003

Electrical installation

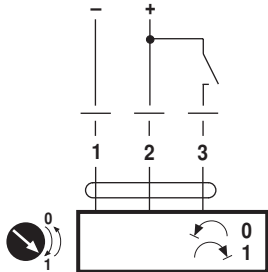


Notes

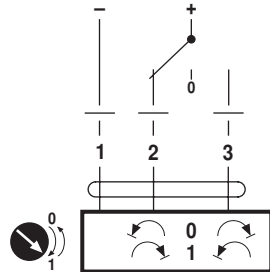
- Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

DC 24 V, open-close

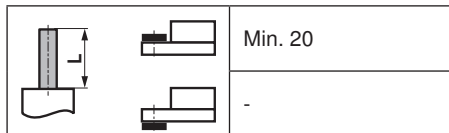


DC 24 V, 3-point



Dimensions [mm]

Spindle length



Dimensional drawings

