

Modulating RobustLine damper actuator for adjusting dampers in industrial plants and in technical building installations

- Damper size up to approx. 2 m<sup>2</sup>
- Nominal torque 10 Nm
- Nominal voltage AC/DC 24 V
- Control: modulating DC 0 V ... 10 V
- Position feedback DC 2 V ... 10 V
- Optimum protection against corrosion and chemical influences, UV radiation, moisture and condensation


**Technical data**

<b>Electrical data</b>	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	2 W
	Power consumption at rest	0.4 W
	Power consumption for wire sizing	4 VA
	Connection supply / control	Cable 1 m, 4 x 0.75 mm <sup>2</sup> (halogen-free)
<b>Functional data</b>	Torque motor	Min. 10 Nm
	Positioning signal Y	DC 0...10 V
	Positioning signal Y note	Typical input impedance 100 kΩ
	Operating range Y	DC 2...10 V
	Position feedback U	DC 2...10 V
	Position feedback U note	Max. 1 mA
	Position accuracy	±5%
	Direction of rotation motor	As an option 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.	35 dB (A)
Spindle driver	Universal spindle clamp 10...20 mm	
Position indication	Mechanical, pluggable	
<b>Safety</b>	Protection class IEC/EN	III Safety extra-low voltage
	Degree of protection IEC/EN	IP66 + IP67
	EMC	CE according to 2004/108/EC
	Principle of operation	Type 1
	Rated impulse voltage supply / control	0.8 kV
	Control pollution degree	4
	Ambient temperature	-30°C ... 50°C
	Non-operating temperature	-40°C ... 80°C
	Ambient humidity	100% r.h.
	Maintenance	Maintenance-free
<b>Weight</b>	Weight approx.	1.3 kg

**Safety notes**


- The actuator is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.
- The cover of the protective housing may be opened for adjustment and servicing. When it is closed afterwards, the housing must seal tight (see installation instructions).

**Safety notes**

- The device on the inside may be opened only at the manufacturer's factory. It does not contain any parts that can be replaced or repaired by the user.
- The cable 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.
- The information on chemical resistance refers to laboratory tests with raw materials and finished products and to trials in the field in the fields of application indicated.
- The materials used may be subjected to external influences (temperature, pressure, constructional fastening, effect of chemical substances etc.) that cannot be simulated in laboratory tests or field trials.
- The information regarding fields of application and resistance can therefore only serve as a guideline. In case of doubt, we definitely recommend that you carry out a test. This information does not imply any legal entitlement. Belimo will not be held liable and will provide no warranty. The chemical or mechanical resistance of the materials used is not alone sufficient for judging the suitability of a product. Regulations pertaining to combustible liquids such as solvents etc. must be taken into account with special reference to explosion protection.

**Product features**

<b>Resistances</b>	Noxious gas test EN 60068-2-60 (Fraunhofer Institut ICT / DE) Salt fog spray test EN 60068-2-52 (Fraunhofer Institut ICT / DE) Ammoniac test DIN 50916-2 (Fraunhofer Institut ICT / DE) Climate test IEC60068-2-30 (Trikon Solutions AG / CH) Disinfectant (animals) (Trikon Solutions AG / CH) UV Test (Solar radiation at ground level) EN 60068-2-5, EN 60068-2-63 (Quinel / Zug CH)
<b>Used materials</b>	Actuator housing polypropylene (PP) Cable glands / hollow shaft polyamide (PA) Connecting cable FRNC Spindle clamp / screws in general Steel 1.4404 Seals EPDM Form-fit insert aluminium anodised
<b>Principle of operation</b>	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.
<b>Direct mounting</b>	Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with a universal mounting bracket to prevent the actuator from rotating.
<b>Manual override</b>	Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).
<b>Adjustable angle of rotation</b>	Adjustable angle of rotation with mechanical end stops. Standard setting 0 ... 90°. The housing cover must be removed to set the angle of rotation.
<b>High functional reliability</b>	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.

Electrical installation

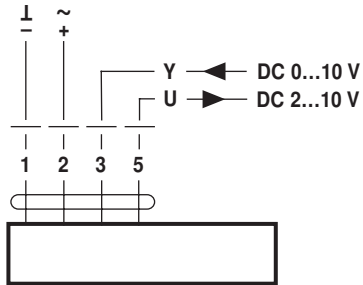


Notes

- Caution: Power supply voltage!
- Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

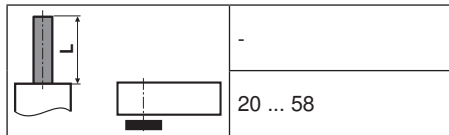
AC/DC 24 V, modulating



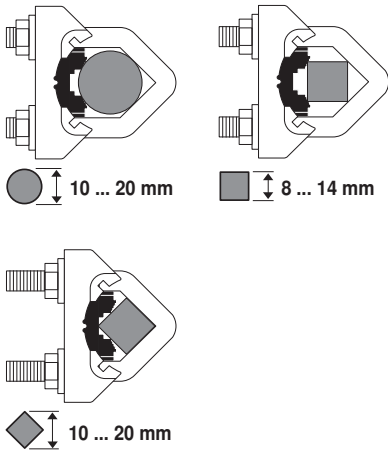
Cable colours:  
1 = black  
2 = red  
3 = white  
5 = orange

Dimensions [mm]

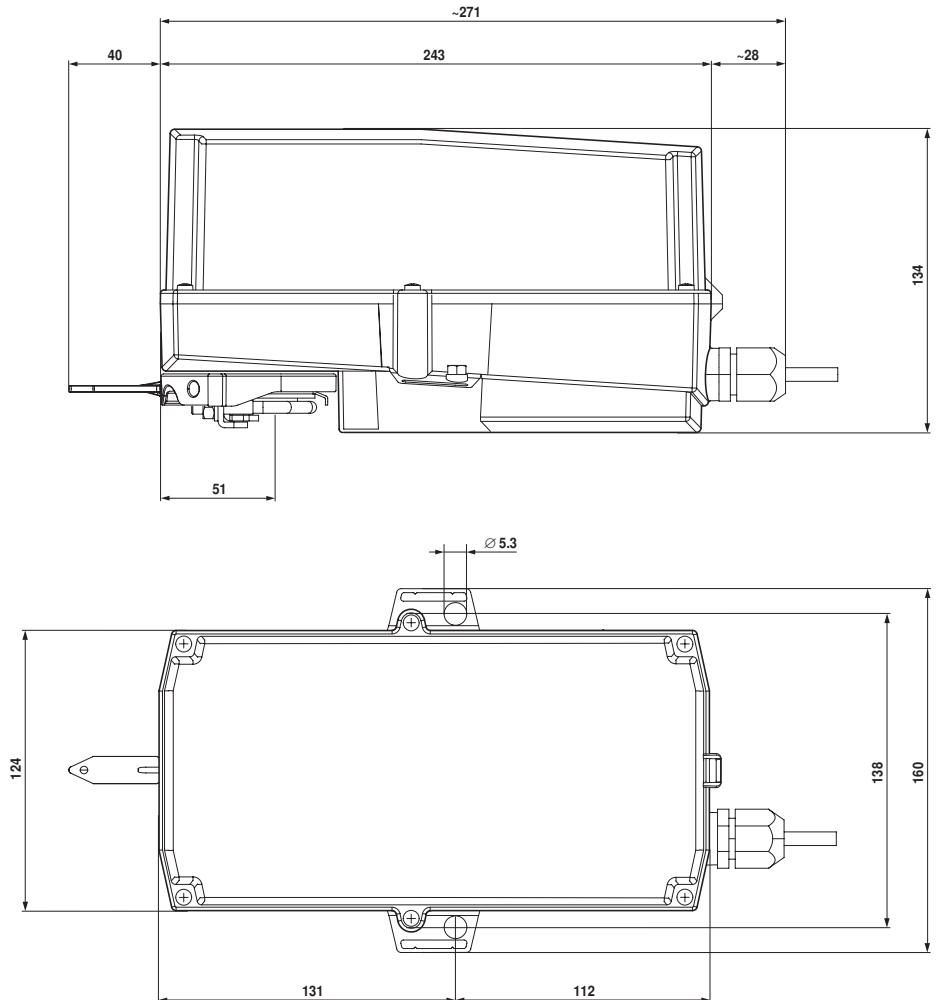
Spindle length

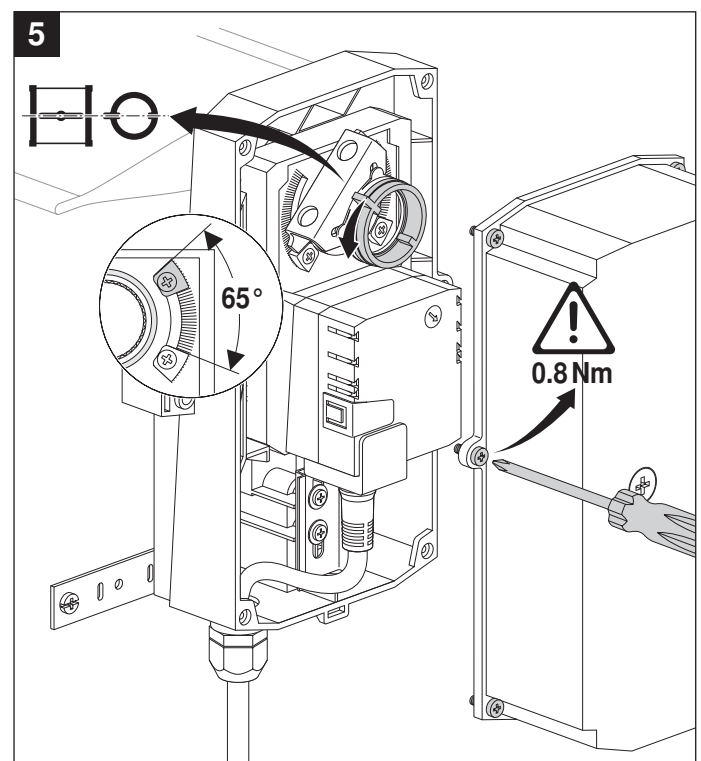
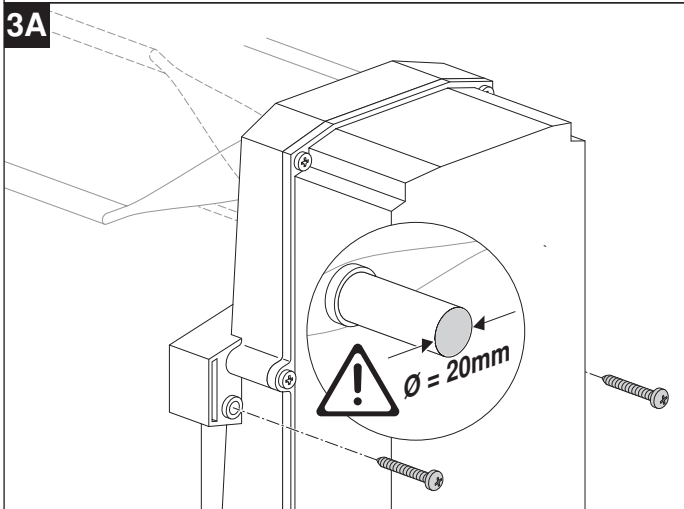
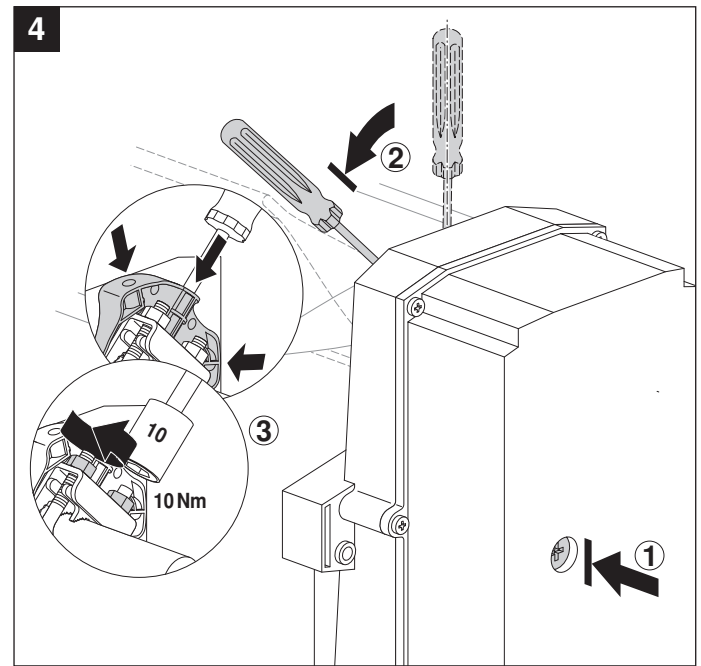
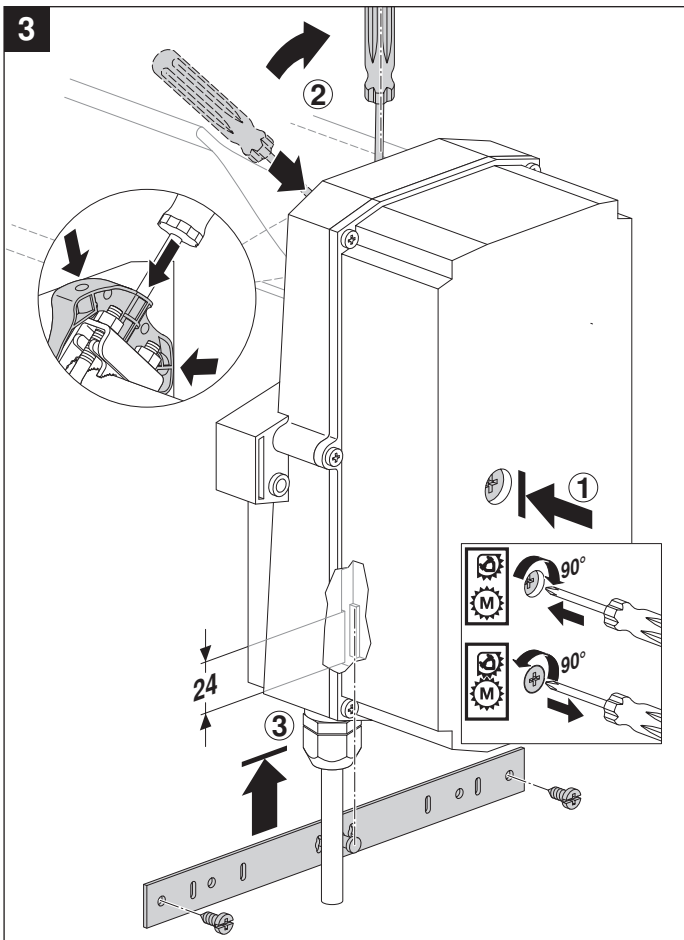
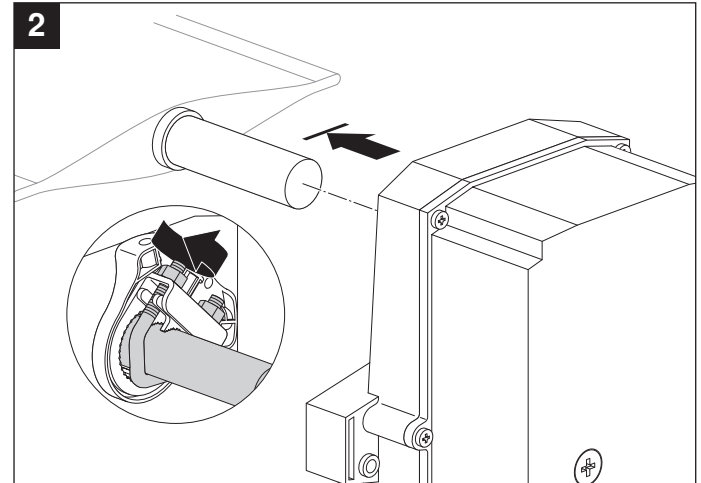
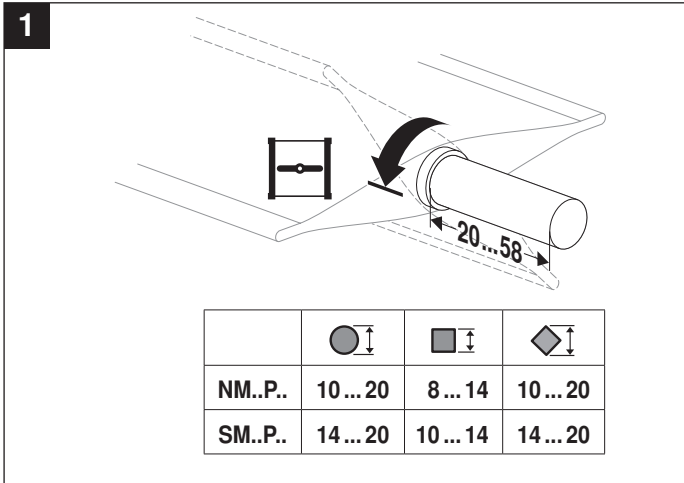


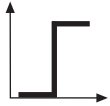
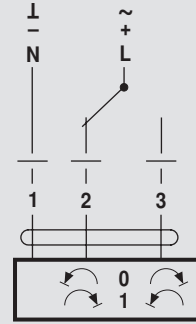
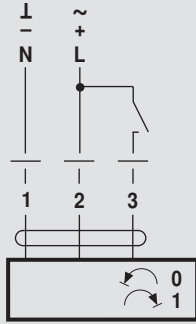
Clamping range



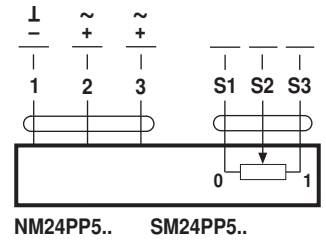
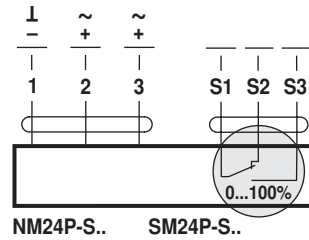
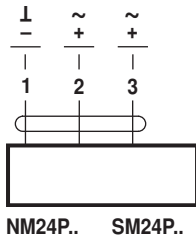
Dimensional drawings



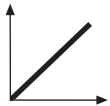
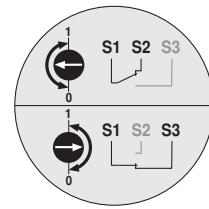
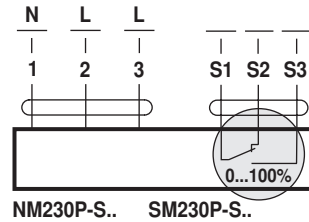
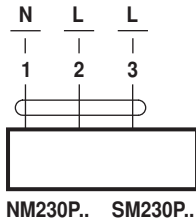




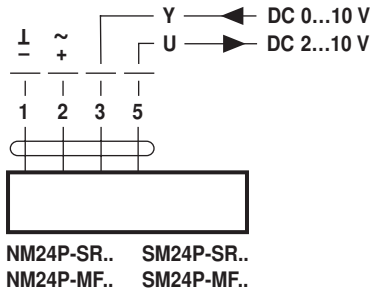
AC 24 V / DC 24 V



AC 100 ... 240 V ⚠



AC 24 V / DC 24 V



AC 100 ... 240 V ⚠

