

RobustLine damper actuator for adjusting dampers in HVAC plants, comparable industrial plants and technical building installations

- Air damper size up to approx. 4 m²
- Torque motor 20 Nm
- Nominal voltage AC/DC 24 V
- Control Open/close, 3-point
- Optimum protection against corrosion and chemical influences, UV radiation, damp and condensation



Technical data

Electrical data	Nominal voltage	AC/DC 24 V	
	Nominal voltage frequency	50/60 Hz	

Nominal voltage range	AC 19.228.8 V / DC 19.228.8 V
Power consumption in operation	2 W
Power consumption in rest position	0.2 W
Power consumption for wire sizing	4 VA
Connection supply / control	Cable 1 m, 3x 0.75 mm² (halogen-free)
Parallel operation	Yes (note the performance data)

Functional data

Torque motor	20 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°

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Angle of rotation note	can be limited on both sides with adjustable mechanical end stops
Running time motor	150 s / 90°
Sound power level, motor	45 dB(A)
Mechanical interface	Universal shaft clamp 1420 mm

Position indication Mechanical, pluggable

Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)
Power source UL	Class 2 Supply
Degree of protection IEC/EN	IP66/67
Degree of protection NEMA/UL	NEMA 4X
Enclosure	UL Enclosure Type 4X
EMC	CE according to 2014/30/EU
Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
UL Approval	cULus according to UL60730-1A, UL60730-2-1

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UL Approval	cULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1
	The UL marking on the actuator depends on the production site, the device is UL-compliant
	in any case
Type of action	Type 1
Rated impulse voltage supply / control	0.8 kV
Pollution degree	4

Max. 100% RH

-30...50°C [-22...122°F]

Safety data

Ambient humidity

Ambient temperature



Technical data		
Safety data	Storage temperature	-4080°C [-40176°F]
	Servicing	maintenance-free
Weight	Weight	1.7 kg

Safety notes



- This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not 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.
- Junction boxes must at least correspond with enclosure IP degree of protection!
- 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).
- 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.
- · Cables must not be removed from the device.
- To calculate the torque required, the specifications supplied by the damper manufacturers
 concerning the cross-section and the design, as well as the installation situation 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.
- The information on chemical resistance refers to laboratory tests with raw materials and finished products and to trials in the field in the areas of application indicated.
- The materials used may be subjected to external influences (temperature, pressure, constructional fixture, effect of chemical substances, etc.), which cannot be simulated in laboratory tests or field trials.
- The information regarding areas 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.
- Flexible metallic cable conduits or threaded cable conduits of equal value are to be used for UL (NEMA) Type 4X applications.
- When used under high UV loads, e.g. extreme sunlight, the use of flexible metallic or equivalent cable conduits is recommended.

Product features

Fields of application

The actuator is particularly suitable for utilisation in outdoor applications and is protected against the following weather conditions:

- Wood drying
- Animal breeding
- Food processing
- Agriculture
- Indoor swimming pools / bathhouses
- Rooftop ventilation plant rooms
- General outdoor applications
- Alternating climate
- Laboratories



Product features

Resistances 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)

Used materials Actuator housing polypropylene (PP)

Cable glands / hollow shaft polyamide (PA)

Connecting cable FRNC

Clamp / screws in general Steel 1.4404

Seals EPDM

Form fit insert aluminium anodised

Simple direct mounting Simple direct mounting on the damper shaft with a universal shaft clamp, supplied with an

anti-rotation device to prevent the actuator from rotating.

Manual override Manual override with push-button possible (the gear train 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. Standard setting 0...90°. The housing

cover must be removed to set the angle of rotation.

High functional reliability The actuator is overload protected, requires no limit switches and automatically stops when

the end stop is reached.

Accessories

Electrical accessories	Description	Туре
	Auxiliary switch 2x SPDT add-on, grey	S2A GR
	Feedback potentiometer 140 Ω add-on	P140A
	Feedback potentiometer 1 kΩ add-on	P1000A
	Feedback potentiometer 10 kΩ add-on	P10000A

Electrical installation



Supply from isolating transformer.

Parallel connection of other actuators possible. Observe the performance data.

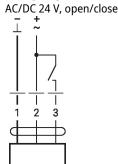
Wire colours:

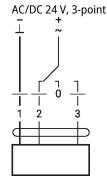
1 = black

2 = red

3 = white

Wiring diagrams



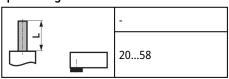


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Dimensions

Spindle length



Clamping range

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1420	1014	1420

