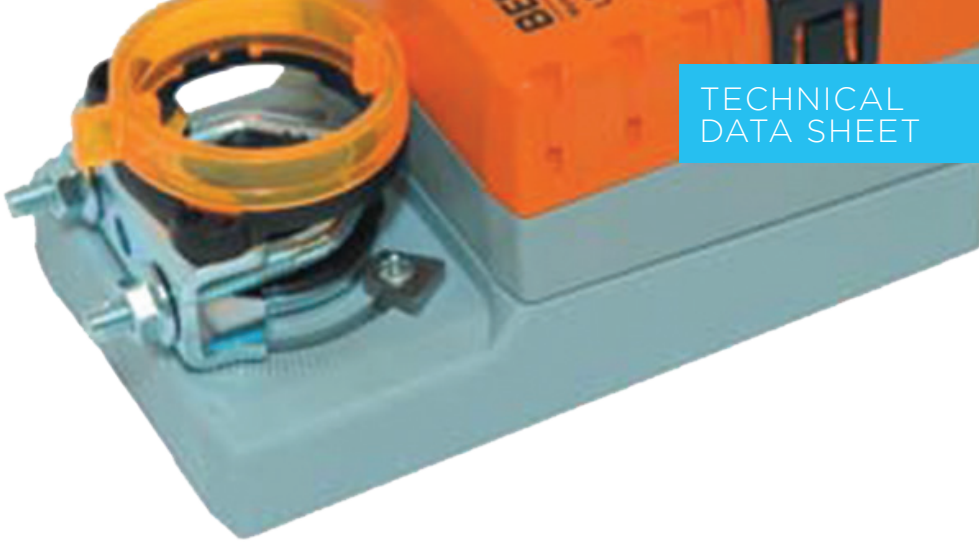
idealair
group

BELIMO

LM230ASR damper actuator

idealair group

TECHNICAL DATA SHEET



BELIMO

LM230ASR DAMPER ACTUATOR

Overview

Damper actuator for operating air control dampers in ventilation and air-conditioning systems for building services installations for air dampers up to approx. 1m². Torque 5 Nm. Nominal voltage AC 100 ... 240 V. Control: modulating DC 0 ... 10 V, position feedback DC 2 ... 10 V

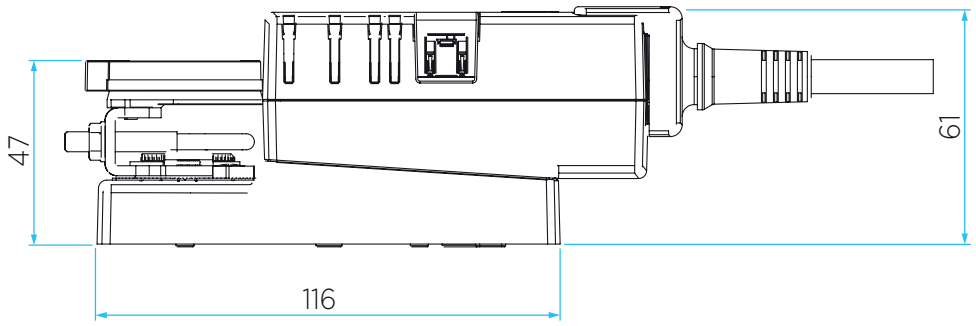
Technical Data

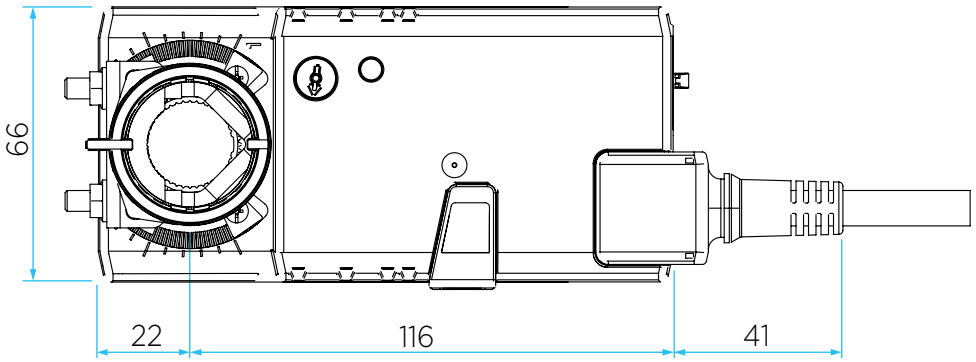
Technical Data			
Electrical Data	Nominal Voltage		AC 100 ... 240 V, 50/60 Hz
	Nominal Voltage Range		AC 85 ... 265 V
	Power Consumption	- In Operation - At Rest - For Wire Sizing	1.8 W @ nominal torque 1 W 4 VA
	Connection	- Power Supply - Signals	Cable 1m, 2 x 0.75mm² Cable 1m, 4 x 0.75mm²
Functional Data	Torque (Nominal Torque)		Min. 5 Nm @ nominal voltage
	Control	- Control Signal Y - Working Range	DC 0 ... 10 V, typical input impedance 100 kff DC 2 ... 10 V
	Position Feedback (Measuring Voltage)		DC 2 ... 10 V, max. 1 mA
	Position Accuracy		35%
	Direction of Rotation		Reversible with switch 0 / 1
	Direction of Rotation at Y = 0 V		At switch position 0 ↶ resp. 1 ↷
	Manual Override		Gearing latch disengaged with pushbutton, self-resetting
	Angle of Rotation		Max. 95° ∢, limited on both sides by means of adjustable, mechanical end stops
	Running Time		150s
	Sound Power Level		Max. 35 dB (A)
	Position Indication		Mechanical, pluggable
Safety	Protection Class		II Totally insulated ⧈
	Degree of Protection		IP54 in any mounting position
	EMC Low Voltage Directive		CE according to 89/336/EEC CE according to 73/23/EWG
	Mode of Operation		Type 1 (to EN 60730-1)
	Ambient Temperature Range		-30 ... +50°C
	Non-Operating Temperature		-40 ... +80°C
	Ambient Humidity Range		95% r.H., non-condensating (EN 60730-1)
	Maintenance		Maintenance-free
Dimensions / Weight	Dimensions		See **Product Specifications** on page 3
	Weight		Approx. 700g

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.
- Caution: Power supply voltage!
- Assembly must be carried out by trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- 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 cable must not be removed from the device.
- 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 Specifications

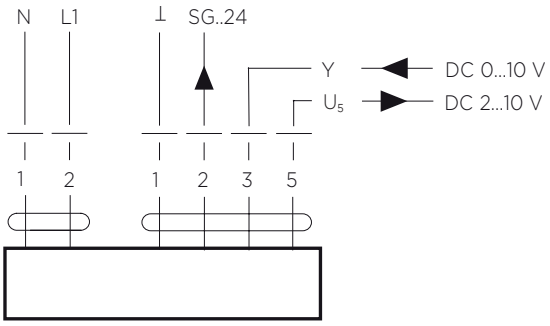




Damper Spindle	
Length	min. 37
◯I◇	6 ... 20

Product Specifications	
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, supplied with an anti-rotation strap to prevent the actuator from rotating.
Manual Override	Manual operation is possible with the self-resetting pushbutton (the gearing latch remains disengaged as long as the pushbutton is pressed).
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.

Electrical Installation



WIRING DIAGRAM

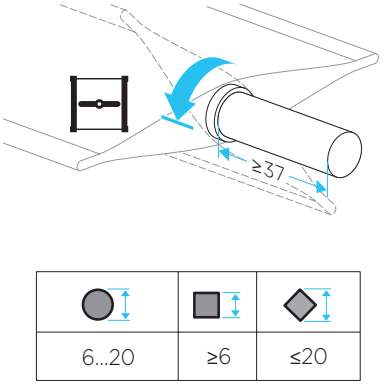
Note -

- **Caution: Power Supply Voltage!**
- Other actuators. can be connected in parallel. Please note the performance data.

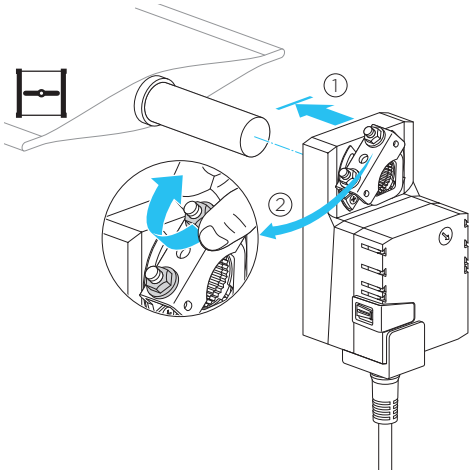
Accessories

	Description	Data Sheet
Electrical Accessories	**Auxiliary Switch S..A..**	T2 - S..A..
	Feedback Potentiometer P..A..	T2 - P..A..
	Positioner SG..24	T2 - SG..24
Mechanical Accessories	**Shaft Extension AV6-20**	T2 - Z-LM..A..

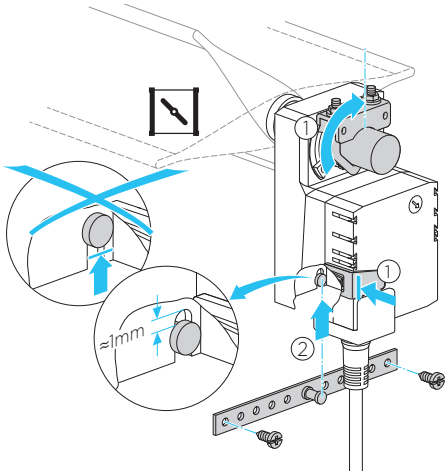
Technical Drawings



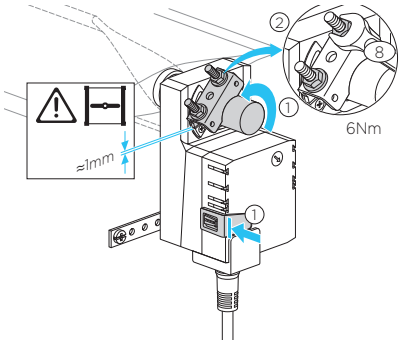
DRAWING 1



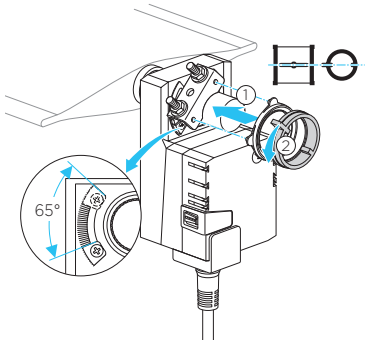
DRAWING 2



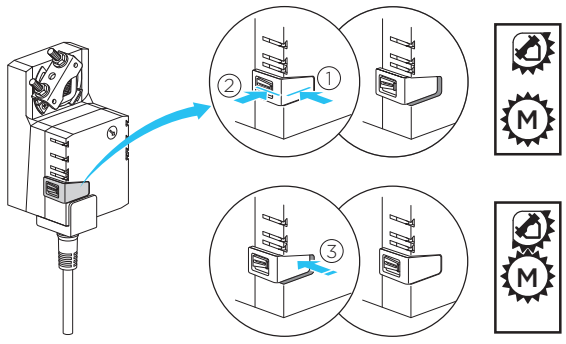
DRAWING 3



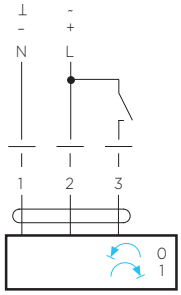
DRAWING 4

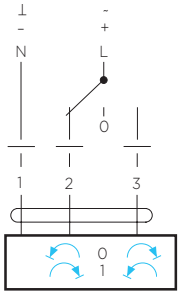


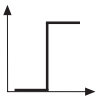
DRAWING 5



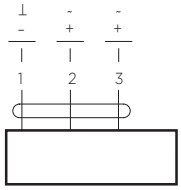
DRAWING 6



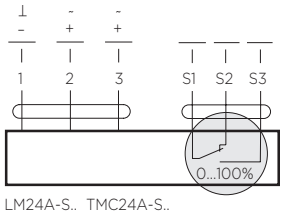




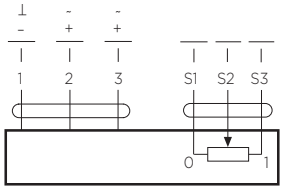
AC 24 V / DC 24 V
DC 48...110 V
(LM72A..)



LM24A.. LMC24A..
LM72A.. TMC24A..

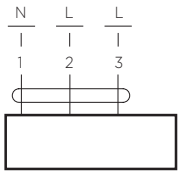


LM24A-S.. TMC24A-S..
LM72A-S..

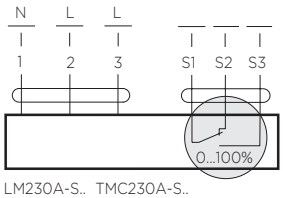


LM24AP5..

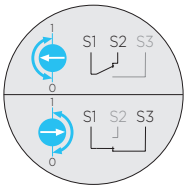
AC 100...240 V



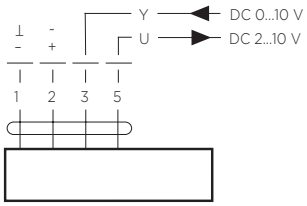
LM230A.. LMC230A..
TMC230A..



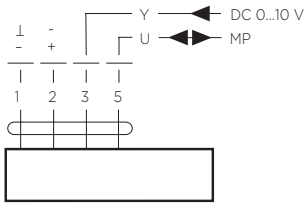
LM230A-S.. TMC230A-S..



AC 24 V / DC 24 V

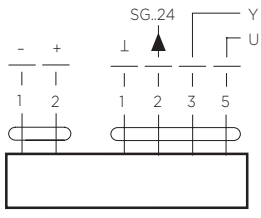


LM24A-SR.. LMC24A-SR..
LM24A-MF.. TMC24A-SR..



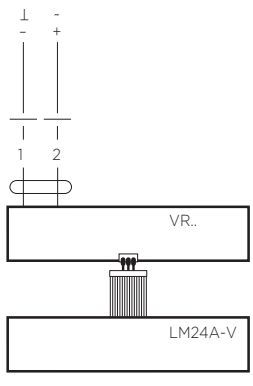
LM24A-MP..

DC 48...110 V
(LM72A-SR..)



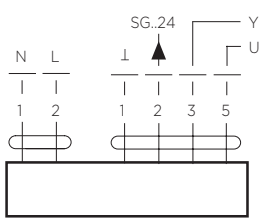
LM72A-SR..

AC 24 V / DC 24 V
(LM24A-V / VR..)



LM24A-V / VR..

AC 100...240 V



LM230ASR.. TMC230ASR..