Modulating damper actuator for factory installation in an equipment in technical building installations

- Air damper size up to approx. 0.2 m²
- Torque motor 1 Nm
- Nominal voltage AC/DC 24 V
- Control modulating 2...10 V
- Position feedback 2...10 V
- with plug



Technical data

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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	1.5 W
Power consumption in rest position	0.5 W
Power consumption for wire sizing	2.5 VA
Connection supply / control	Connector plug (Cable-side connector socket not included in scope of delivery)
Connection plug	Molex Mini-Fit Jr. 39303045
Parallel operation	Yes (note the performance data)

Functional data

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Torque motor	1 Nm	
Operating range Y	210 V	
Input Impedance	100 kΩ	
Position feedback U	210 V	
Position feedback U note	Max. 1 mA	
Position accuracy ±5%		
Direction of motion motor counter-clockwise rotation		
Direction of motion note	Y = 0 V: left end stop, position 0	
Manual override	No	
Angle of rotation	95°, fixed setting	
Running time motor	22 s / 90°	
Sound power level, motor	35 dB(A)	
Mechanical interface	Universal shaft clamp 612.7 mm	
Position indication	No	
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Safety data

Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)		
Power source UL	Class 2 Supply		
Degree of protection IEC/EN	IP20		
Degree of protection NEMA/UL	NEMA 1		
Enclosure	UL Enclosure Type 1		
EMC	CE according to 2014/30/EU		
Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14		
UL Approval	cURus according to UL60730-1A, UL60730-2-14		
	and CAN/CSA E60730-1		
Mode of operation	Type 1		
Rated impulse voltage supply / control	0.8 kV		
Pollution degree	2		
Ambient humidity	Max. 95% RH, non-condensing		
Ambient temperature	-3050°C [-22122°F]		
Storage temperature	-4080°C [-40176°F]		



Technical data sheet	UM24Y-SR-L
Technical data Sheet	UIVIZ41-3R-L

Safety data Servicing maintenance-free

Weight Weight 0.12 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.
- The device is not designed for applications where chemical influences (gases, fluids) are
 present or for utilisation in corrosive environments in general.
- The device is considered a component and intended for installation in an equipment at the factory. The required protection against accidental contact with live parts must be provided by the damper or system manufacturer.
- 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 plug connections may only be used according to the installation instructions. The Molex
 plug connection has a mandatory locking mechanism that prevents unintentional
 disconnection. Operating the locking mechanism and the entire plug connection under
 voltage is not permitted.
- To calculate the torque required, the specifications supplied by the damper manufacturers
 concerning the cross-section, the design, 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.

Product features

Mode of operation The actuator is connected with a standard control signal of 0...10 V and drives to the position

defined by the control signal. Measuring voltage U serves for the electrical display of the

damper position 0...100% and as control signal for other actuators.

Simple direct mounting The actuator is mounted directly on the damper shaft (\varnothing 6...12.7 mm) with a universal shaft

clamp and then secured with the anti-rotation clip, to prevent it from rotating.

The anti-rotation clip Z-ARCM is not included in the scope of delivery.

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.

Hidden synchronisation If the actuator drives to the lower end stop during ongoing operation, it performs a

synchronisation of the control signal at DC 2 V. This ensures that the signal range also corresponds to the effective functional range in ongoing operation. The bottom end stop is actively approached as soon as the control signal is <DC 2.1 V. The actuator drives to the new

specified position as soon as the control signal is once again >DC 2.3 V.

Delivery notes Incl. End stop clip

Accessories

Mechanical accessories	Description	Туре
	Anti-rotation clip, Multipack 20 pcs.	Z-ARCM
	End stop clip, Multipack 20 pcs.	Z-ESCM
	Protective covering, Multipack 20 pcs.	Z-PCUM



Electrical installation



Supply from isolating transformer.

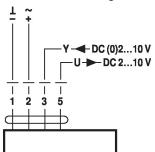
Parallel connection of other actuators possible. Observe the performance data.

Cable-side connector socket is not included in scope of delivery

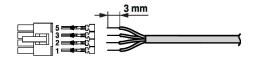
The plug connections may only be used according to the installation instructions. The Molex plug connection has a mandatory locking mechanism that prevents unintentional disconnection. Operating the locking mechanism and the entire plug connection under voltage is not permitted.

Wiring diagrams

AC/DC 24 V, modulating

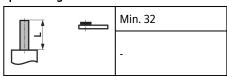


Molex PN 39014040 / 39000039 (0.5...1.0 mm²)



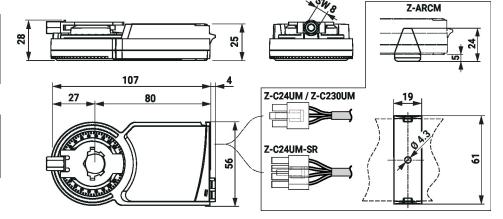
Dimensions

Spindle length

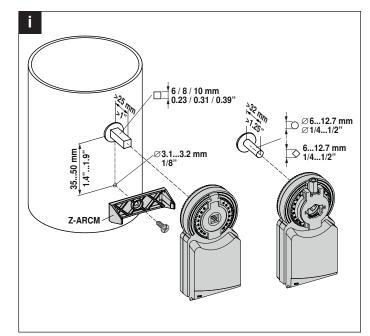


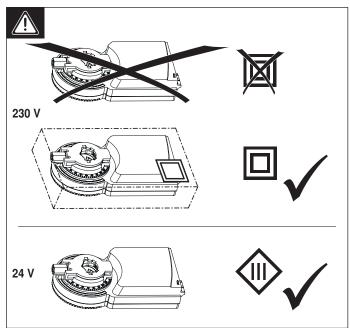
Clamping range

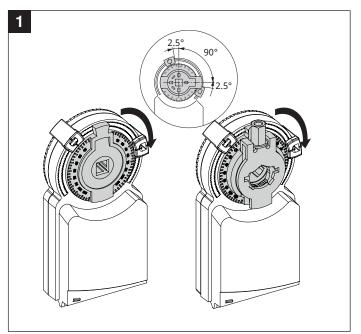
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612.7	6/8/10	612.7

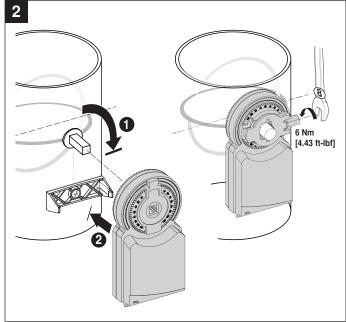


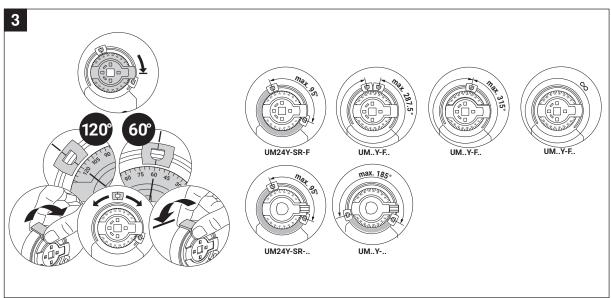








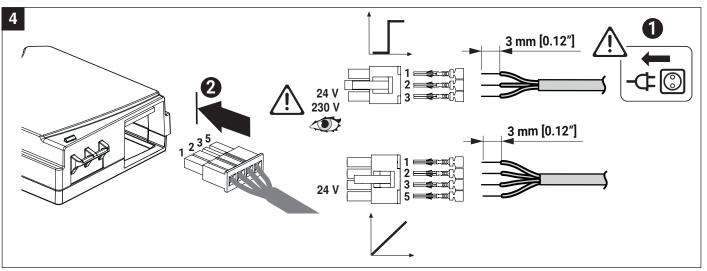


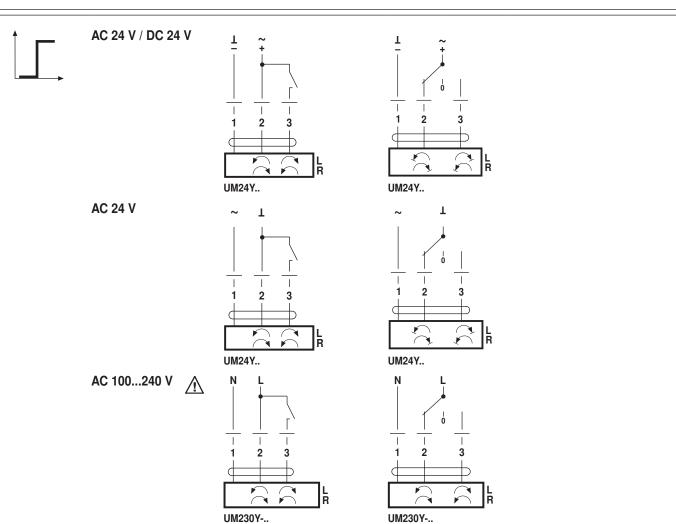




www.belimo.com/safety-notes

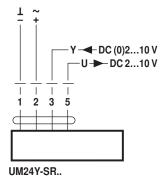








AC 24 V / DC 24 V



SALES CONTACT



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