

Damper Actuators

Non-Spring Return GMU... series



Technical Databook



New Generation Non-spring return actuator	CMU..	LMU..	NMU..	SMU..	GMU..
Open/Close, 3-point	2 Nm	5 Nm	10 Nm	20 Nm	40 Nm
AC 24 V 50/60 Hz, DC 24 V Auxiliary switch build-in 1 SPDT	CMU24(-F8/-F10)(-T)	LMU24(-F/-T)	NMU24(-F/-T)	SMU24(-F/-T)	GMU24*
AC 100..240 V 50/60 Hz AC 230 V 50 Hz (Open/Close) Auxiliary switch build-in 1 SPDT	CMU230(-F8/-F10) CMU230(-F8/-F10)-RES*	LMU24-S LMU230 LMU230-S	NMU24-S NMU230 NMU230-S	SMU24-S SMU230 SMU230-S	GMU230*
Modulating Control signal DC 2(0)..10 V, feedback DC 2...10 V AC 24 V 50/60 Hz, DC 24 V AC 100..240 V 50/60 Hz	CMU24-SR-R**	LMU24-SR LMU230SR	NMU24-SR NMU230SR	SMU24-SR SMU230SR	GMU24-SR
Running time	75s	150s			
Shaft diameter	6...12.7mm	6... 20mm	8... 26mm	10... 20mm	14... 26mm
Sound power level	Max. 35 dB(A)	Max. 35 dB(A)	Max. 35 dB(A)	Max. 48 dB(A)	Max. 48 dB(A)
Manual override	Disengaging the gearing latch by means of a pushbutton, self-resetting				
Electrical connection	Cable 1 m (-T: Terminal)				
Direction of rotation	Selected by switch				
Angle of rotation	Max. 95°, can be limited at both ends with mechanical adjustable end stops				
Position indication	Mechanical, plug-on				
Degree of protection	IP54 in any direction (-T: IP20)				
EMC	CE according to 89/336/EEC				
Ambient temperature	- 30°C... + 50°C				
Non-operation temperature	- 40°C... + 80°C				
Humidity test	95% RH, non condensing (to EN 60730-1)				

* Only Open/Close, no 3-point.

** CMU24-SR-R: control signal 2(0) V at the right side, and the left side is available if request.

Note:

Using Belimo Damper actuators:

- The actuators listed in this catalogue are intended for the operation of air dampers in HVAC systems.
- The damper actuator is not allowed to be used outside the specified field of application, especially in aircraft.
- The enclosure of the actuator equipment may only be opened by the manufacturer. It contains no components which the user can replace or repair.
- 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.

Torque requirements:

- When calculating the torque required to operate dampers, it is essential to take into account all the data supplied by the damper manufacturer concerning cross sectional area, design, mounting and air flow condition.

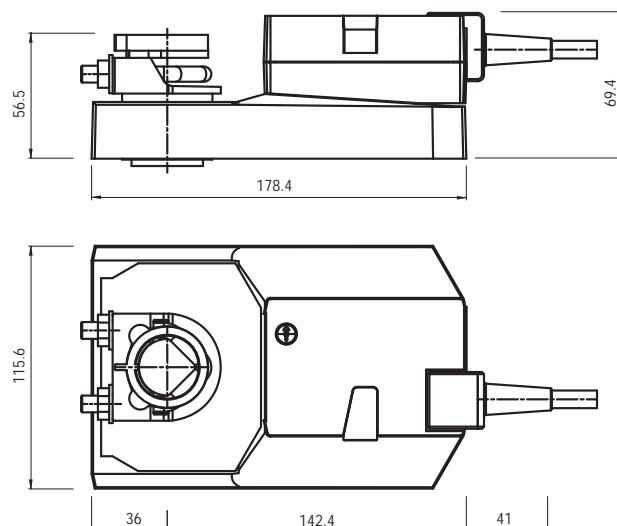
Non-spring return actuators NMU..

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- For operation of air control dampers in HVAC systems
- Torque 40 Nm
- Nominal voltage AC/DC 24 V
- Control: Open/Close


Technical data

Electrical data	Nominal voltage	AC 24 V 50/60 Hz, DC 24 V	
	Nominal voltage range	AC/DC 19.2 ... 28.8 V	
	Power consumption	4 W @ running / 2 W @ holding	
	Wire/transformer sizing	6 VA	
	Max. peak current	2.7 A @ 5 ms	
Functional data	Connection cable	Cable 1 m, 3 x 0.75 mm ²	
	Torque	40 Nm	
	Direction of rotation	Selectable by switch	
	Manual override	Gearing latch disengaged with pushbutton, self-resetting	
	Angle of rotation	Max. 95°, adjustable by mechanical stops	
	Running time	150 s for 95°	
	Sound power level	Max. 45 dB (A)	
	Position indication	Mechanical, remote visible	
	Working conditions	Protection class	III (safety low voltage)
		Degree of protection	IP54 in any direction
EMC		CE according to 89/336/EEC	
Mode of operation		Type 1 to EN 60730-1	
Ambient temperature		-30 ... +50°C	
Non-operation temperature		-40 ... +80°C	
Humidity test		95% RH, non condensing (EN 60730-1)	
Dimensions / weight	Maintenance	Maintenance free	
	Dimensions (L x W x H)	219 x 115.6 x 69.4 mm	
	Shaft length	Min. 48 mm (20mm for reverse mounting)	
	Shaft	⌀ 14 ... 25.5 mm	
	Weight	1550 g	

Dimensions [mm]


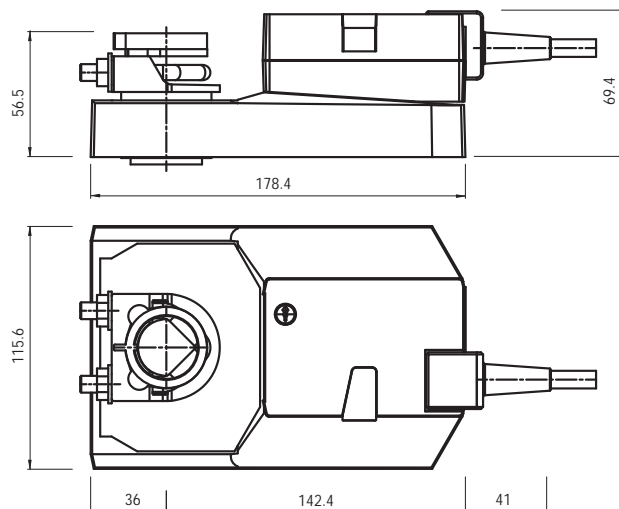


- For operation of air control dampers in HVAC systems.
- Torque 40 Nm
- Nominal voltage AC/DC 24 V
- Control signal: DC 2(0) ... 10 V
- Position feedback: DC 2 ... 10 V

Technical data

Electrical data	Nominal voltage	AC 24 V 50/60 Hz, DC 24 V
	Nominal voltage range	AC/DC 19.2 ... 28.8 V
	Power consumption	4.5 W @ running / 2 W @ holding
Functional data	Wire/transformer sizing	6.5 VA
	Max. peak current	8.3 A @ 5 ms
	Connection cable	Cable 1 m, 4 x 0.75 mm ²
	Torque	40 Nm
	Control signal	2(0)...10 VDC (input impedance 100kΩ)
	Operating range	2...10 VDC
	Measurement voltage	2...10 VDC, max. 1 mA
	Direction of rotation	Selectable by switch
	Manual override	Gearing latch disengaged with pushbutton, self-resetting
	Angle of rotation	Max. 95°, adjustable by mechanical stops
Working conditions	Running time	150 s for 95°
	Sound power level	Max. 45 dB (A)
	Position indication	Mechanical, remote visible
	Protection class	III (safety low voltage)
	Degree of protection	IP54 in any direction
	EMC	CE according to 89/336/EEC
	Mode of operation	Type 1 to EN 60730-1
	Ambient temperature	-30 ... +50°C
Dimensions / weight	Non-operation temperature	-40 ... +80°C
	Humidity test	95% RH, non condensing (EN 60730-1)
	Maintenance	Maintenance free
	Dimensions (L x W x H)	219 x 115.6 x 69.4 mm
Shaft length	Min. 48 mm (20mm for reverse mounting)	
Shaft	⌀ 14 ... 26.7 mm	
Weight	1550 g	

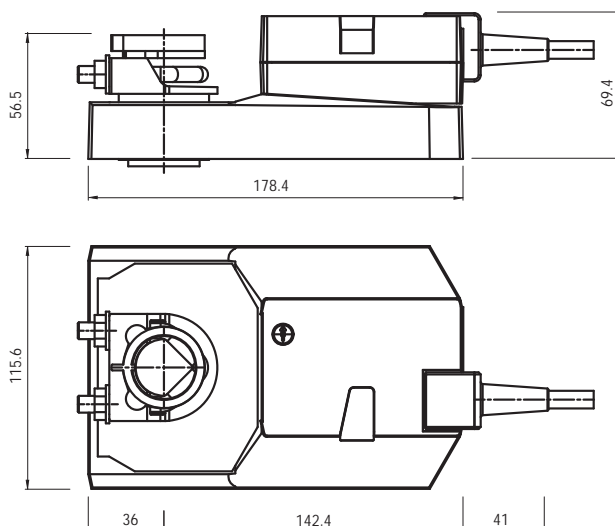
Dimensions [mm]



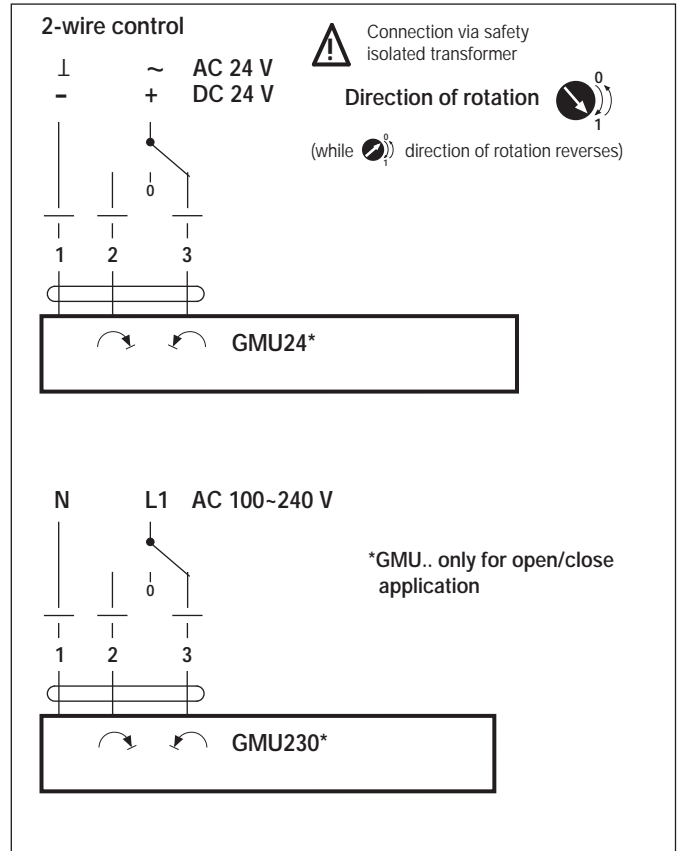
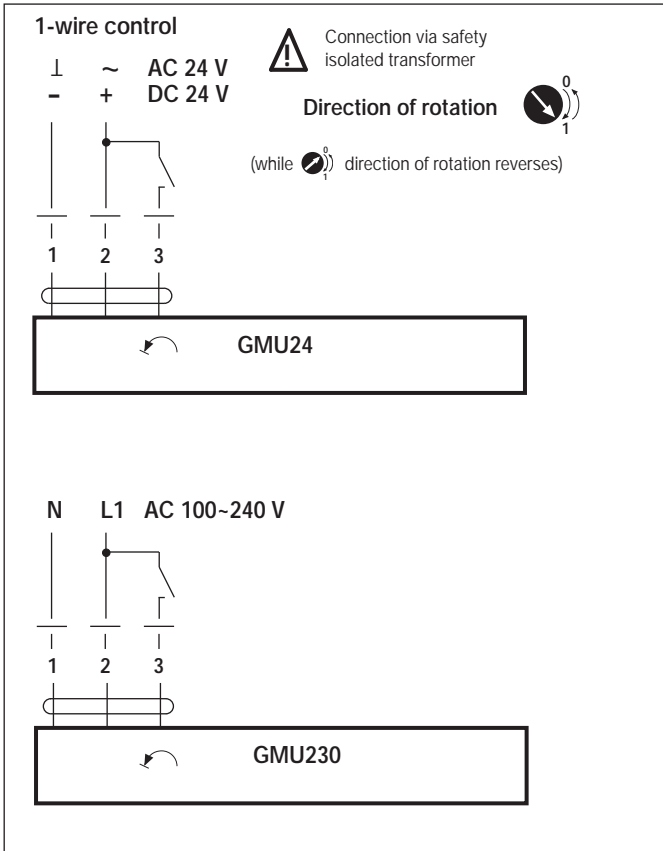
- For operation of air control dampers in HVAC systems.
- Torque 40 Nm
- Nominal voltage AC 100...240 V
- Control: Open/Close


Technical data

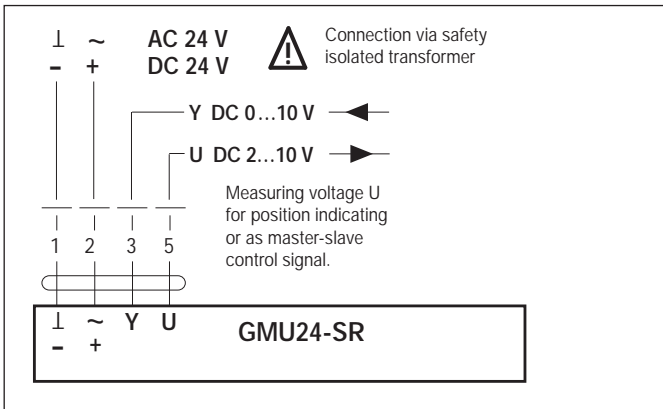
Electrical data	Nominal voltage	AC 100 ... 240 V, 50/60 Hz
	Nominal voltage range	AC 85 ... 265 V
	Power consumption	5 W @ running / 2.5 W @ holding
	Wire/transformer sizing	9 VA
	Max. peak current	3.2 A @ 230VAC
Functional data	Connection cable	Cable 1 m, 3 x 0.75 mm ²
	Torque	40 Nm
	Direction of rotation	Selectable by switch
	Manual override	Gearing latch disengaged with pushbutton, self-resetting
	Angle of rotation	Max. 95°, adjustable by mechanical stops
	Running time	150 s for 95°
	Sound power level	Max. 45 dB (A)
Working conditions	Position indication	Mechanical, remote visible
	Protection class	II (Totally insulated) <input type="checkbox"/>
	Degree of protection	IP54 in any direction
	EMC	CE according to 89/336/EEC
	Low voltage directive	CE according to 73/23/EEC
	Mode of operation	Type 1 to EN 60730-1
	Ambient temperature	-30 ... +50°C
	Non-operation temperature	-40 ... +80°C
Dimensions / weight	Humidity test	95% RH, non condensing (EN 60730-1)
	Maintenance	Maintenance free
	Dimensions (L x W x H)	219 x 115.6 x 69.4 mm
	Shaft length	Min. 48 mm (20mm for reverse mounting)
	Shaft	⌀I◇14 ... 25.5 mm
	Weight	1550 g

Dimensions [mm]


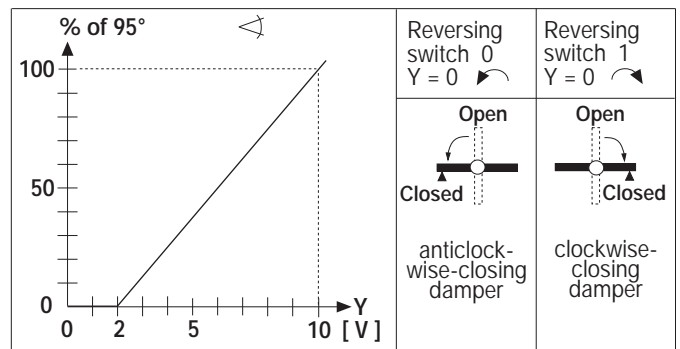
Wiring diagram: GMU..




Wiring diagram: Modulating actuators. Parallel connection possible, please note the performance data



Position - signal voltage



Direction of rotation 

Innovation, Quality and Consultancy: A partnership for motorizing HVAC actuators



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