GRUNER
Schalten und Bewegen

Technical data sheet

227C-024-05

Continuous control rotary drive without spring return

Description

Actuator for adjusting air dampers of 90° angle of rotation to be used in HVAC installations.

- **Torque Motor** **5 Nm**
- **Nominal Voltage** **24 VAC/DC**
- **Control** **Continuous control DC 0(2)...10 V**
- **Damper size** **up to approx. 1 m²**
- **Damper coupling** **Clamp ◊ 8-12 mm / Ø 8-16 mm**

Technical data

Nominal voltage	Nominal voltage	24 VAC/DC
	Nominal voltage range	19...29 VAC/DC
	Power consuption Motor (Motion)	2,0 W
	Power consuption Standby (end position)	1,0 W
	Wire sizing	3,5 VA
	Control	Continuous control 0(2)...10 VDC / Ri > 100 kΩ 0(4)...20 mA / Rext. = 500 Ω
	Position feedback	0(2)...10 VDC, max 5 mA
	Auxiliary switch	-
	Contact load	-
	Switching point	-
	Connection Motor	Cable 1000 mm, 4 x 0,75 mm² (halogen free)
	Connection Auxiliary switch	-
	Connection Position feedback	-
	Connection GUAC	-
Functional data	Torque Motor	>5 Nm
	Synchronised speed	±5%
	Direction of rotation	selected by switch
	Manual override	Gearing latch disengaged with pushbutton, self-resetting
	Angle of rotation	0°... max. 95°, can be limited with adjustable mechanical end stop
	Running time Motor	< 100 s / 90°
	Sound power level Motor	< 35 dB(A)
	Damper coupling	Clamp ◊ 8-12 mm / Ø 8-16 mm

Technical data

Functional data	Position indication	mechanical with pointer
	Service life	>60'000 cycles (0° - 95° - 0°)
		>1'000'000 partial cycles (max. ±5°)
Safety	Protection class	III (low voltage safety current)
	Degree of protection	IP54 (Cable downwards)
	EMC	CE (2004/108/EG)
	LVD	CE (2006/95/EG)
	RoHS	CE (2011/65/EU)
	Mode of operation	Typ 1 (EN 60730-1)
	Rated impulse voltage	0,8 kV (EN 60730-1)
	Control pollution degree	3 (EN 60730-1)
	Ambient temperature Normal operation	-30°C...+50°C
	Storage temperature	-30°C...+80°C
	Ambient humidity	5...95% r.F.,
		non- condensating (EN 60730-1)
	Maintenance	maintenance free
Dimensions/ Weight	Dimensions	115 x 65 x 61 mm
	Weight	ca. 530 g

Operating mode / Properties

Operating mode
Through connecting the power supply to BU+BN (1+2) and a reference signal Y to BK (3) of 0(2)…10VDC, moves the actuator to its specified position. The actual damper position 0…100% is a feedback signal U for example to share the signal with other actuators.

The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

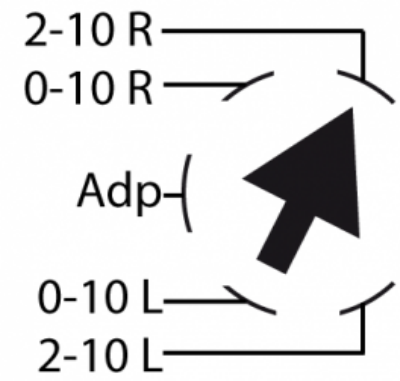
Direct mounting
Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with an anti-rotation strap to prevent the actuator from rotating.

Manual override
Manual override is possible with the self-resetting pushbutton (the gearing latch remains disengaged as long as the pushbutton is pressed)

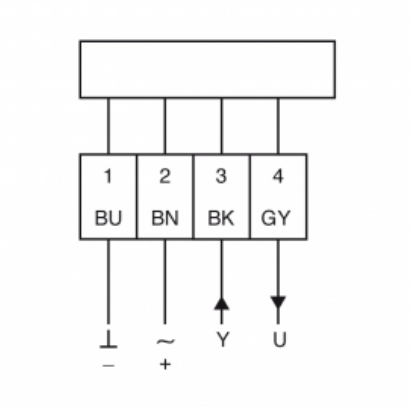
Mode- switch
Mode- switch with five positions at the housing

- Rotary direction right 2-10 V
- Rotary direction right 0-10 V
- Adp = Adaption
- Rotary direction left 0-10 V
- Rotary direction left 2-10 V

Adaption drive
-Adaption on angle of rotation < 90°
-Actuator power-off
-Setting the mechanical end stops
-Actuater power-on
-Adaption to enable
-Actuator adaption on angular range
-Adaption to disable
-“Y” refers to the measured angular range



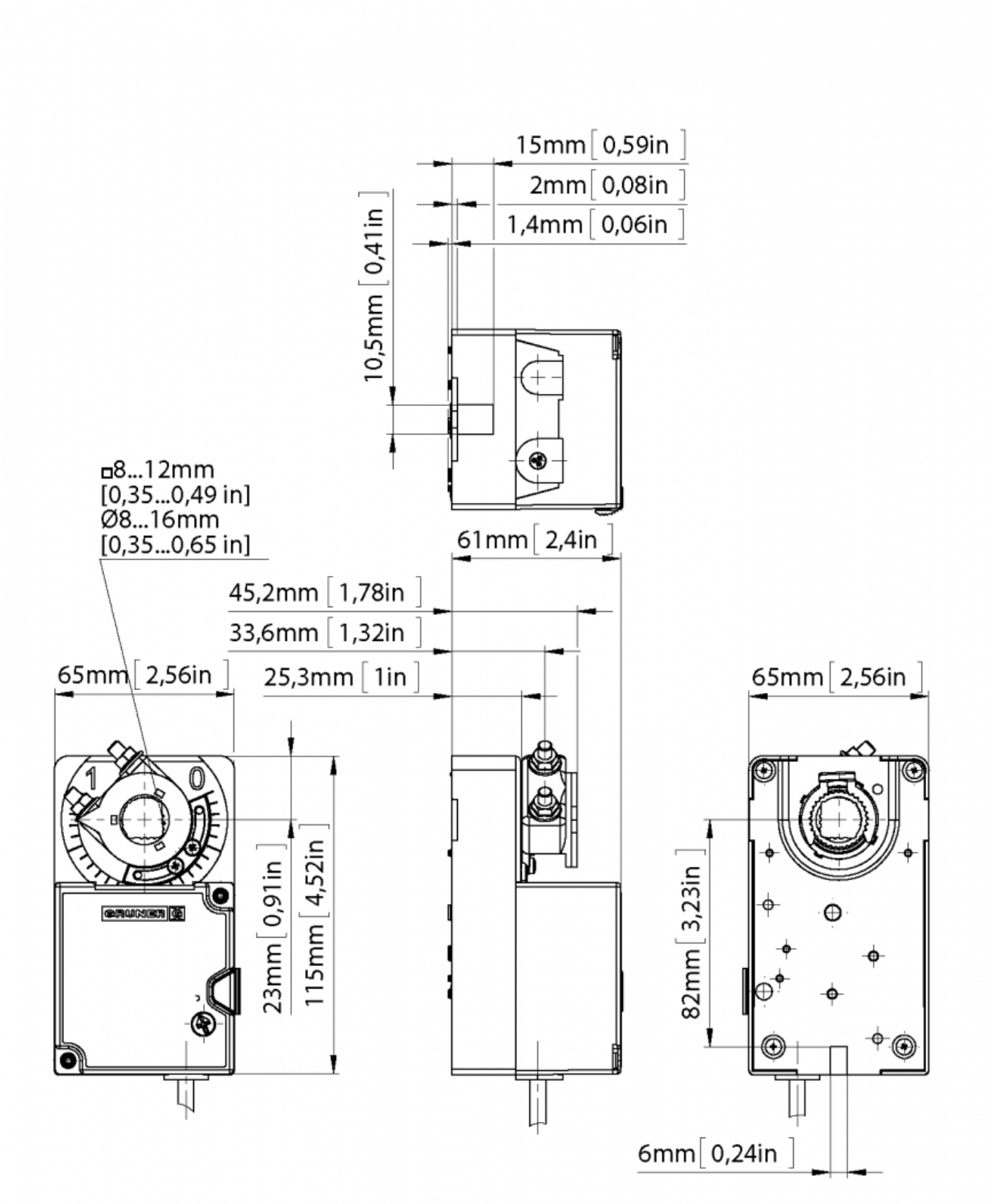
Connection / Safety remarks



Safety remarks

-Connect via safety isolation transformer
-The actuator is not allowed to be used outside the specified field of application, especially in airplanes.
-In may only be installed by suitably 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.
-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 actuator is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Technical drawing



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