GRUNER
SWITCH TO INNOVATIONS

Technical data sheet

225CS-024T-05
Rotary actuator

Description

Rotary actuator for adjusting dampers in HVAC installations

- Running time 20...35 / 90°
- Torque 5 Nm
- Nominal voltage 24 VAC/DC
- Control continuous control (0)2...10 VDC
- Damper size up to approx. 1 m²
- Shaft coupling clamp ◊ 8-12 mm / Ø 8-16 mm

Technical data

Electrical data	Nominal voltage	24 VAC/DC, 50/60 Hz
	Voltage range	19...29 VAC/DC
	Power consumption motor (motion)	2,5 W
	Power consumption standby (end position)	1,0 W
	Wire sizing	5,5 VA
	Control	continuous control (0)2...10 VDC / Ri > 100 kΩ (0)4...20 mA
	Feedback signal	(0)2...10 VDC, max. 5 mA
	Auxiliary switch	-
	Contact load	-
	Switching point	-
	Connection motor	screw terminals, 4-pin 0,5...1,5 mm²
	Connection feedback potentiometer	-
	Connection auxiliary switch	-
	Connection GUAC	-
Functional data	Torque	5 Nm

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Technical data

Functional data	Damper size	up to approx. 1 m²
	Synchronized speed	-
	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 stops
	Running time	20...35 s / 90° (load-dependent)
	Sound power level	< 45 dB(A)
	Shaft coupling	clamp ◊ 8-12 mm / Ø 8-16 mm
	Position indication	mechanical with pointer
	Service life	> 60 000 cycles (0°...95°...0°) > 1 000 000 partial cycles (max. ±5°)
Safety	Protection class	III (safety extra-low voltage)
	Degree of protection	IP 52 (cable port downwards)
	Cable mounting type	Type X (EN 60730-1)
	EMC	CE (2014/30/EU)
	LVD	CE (2014/35/EU)
	RoHS	CE (2011/65/EU - 2015/863/EU - 2017/2102/EU)
	Mode of operation	Typ 1 (EN 60730-1)
	Rated impulse voltage supply / control	0,8 kV
	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.H., non condensing
	Maintenance	maintenance free
Dimensions / Weight	Dimensions	145 x 70 x 61 mm
	Weight	450 g

Functionality / Properties

Operating mode

Connect power supply to terminal 1+2 and a reference signal Y to terminal 3 in range of (0)2...10 VDC, actuator drives to its specified position. The actual damper position (0...100%) is a feedback signal U on terminal 4 for example to share 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 shaft with a clamp, protection against rotating with enclosed anti-rotation lock or rather at intended attachment points.

Manual override

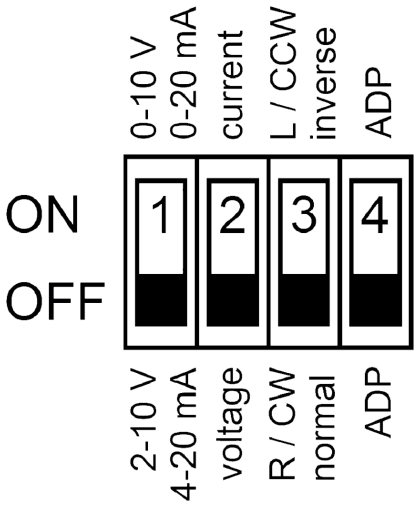
Manual override with self-resetting pushbutton possible (the gear is disengaged as long as the button is pressed).

Mode switch

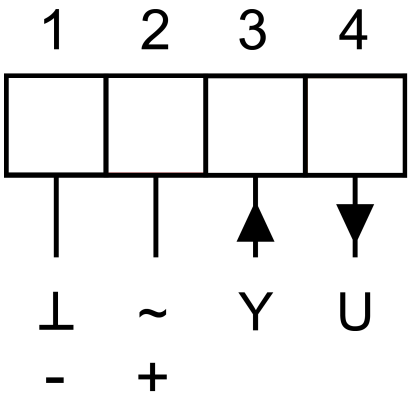
DIP switch under the case cover

Adaption drive

- Actuator power off
- Setting the mechanical end stops
- Actuator power on
- Adaption enable
- Actuator drive to position 0
- Actuator drive to position 1
- Adaption disable, if desired angular range reached or rather if actuator reached endstop
- “Y” refers to the measured angular range



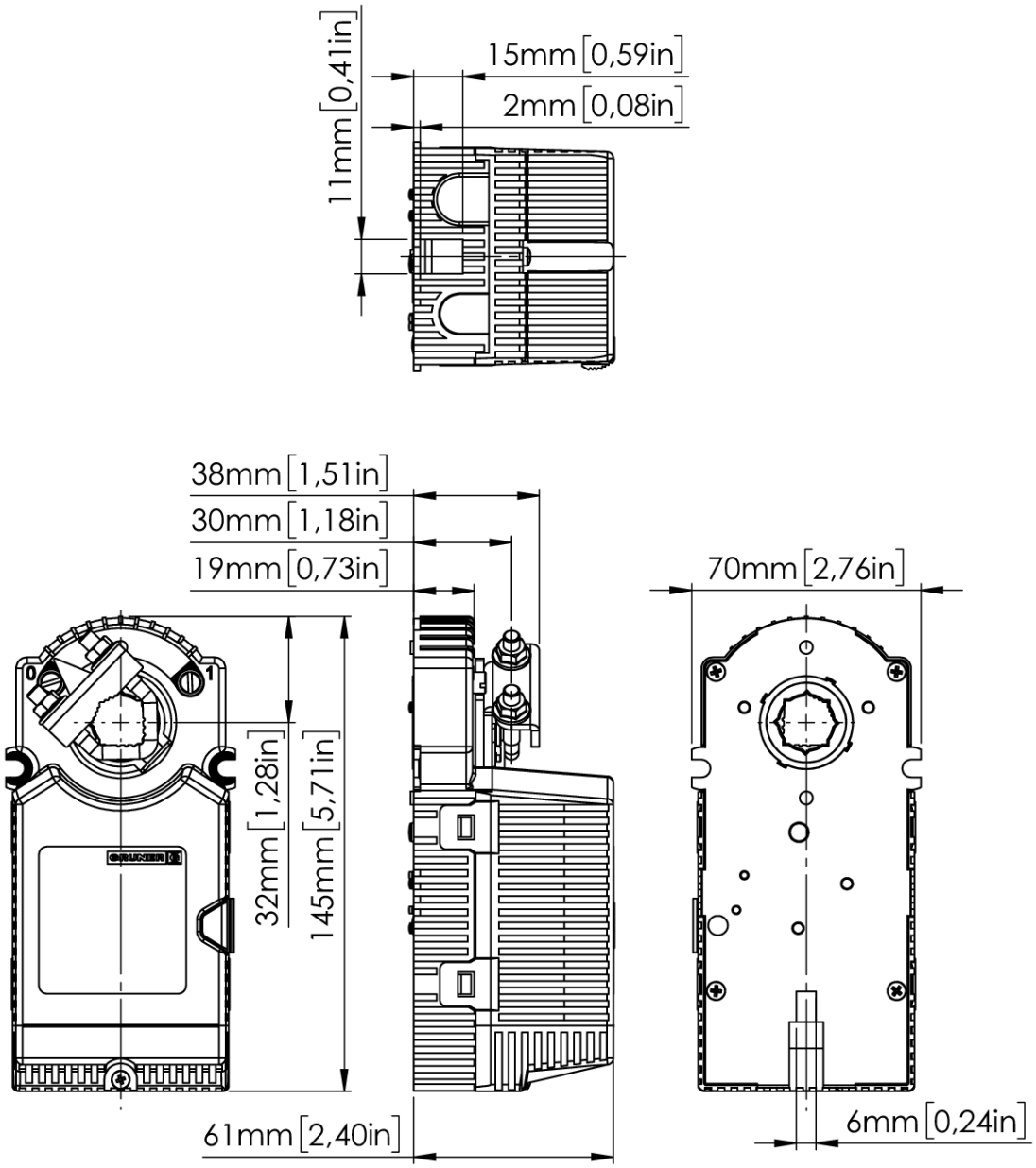
Connector / Security Note



Safety remarks

- Connect via safety isolation transformer!
- The device is not allowed to be used outside the specified field of application, especially in airplanes.
- It 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.
- Cables must not be removed from the device.
- The cable of this actuator cannot be replaced. If the cable is damaged, the actuator should be scrapped.
- The device is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When calculating the required torque, the specifications supplied by the damper manufacturer´s (cross-section, design, installation site), and the air flow conditions must be observed.

Technical Drawing



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