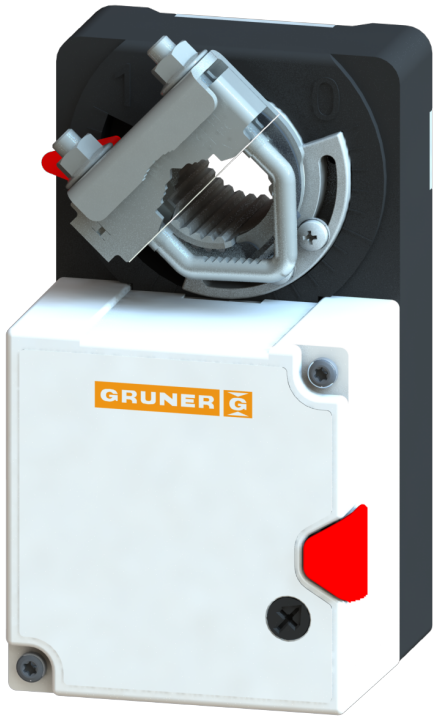
GRUNER
SWITCH TO INNOVATIONS

Technical data sheet

UL-227-024-045-P1*
Rotary actuator
(*old version)



Description

Rotary actuator for adjusting dampers in HVAC installations

- Running time 100 s / 90°
- Torque 45 in-lb [5 Nm]
- Nominal voltage 24 VAC/DC
- Control 2-/3-point
- Feedback-potentiometer P1 = 1 kΩ
- Damper size up to approx. 10,8 ft² [1 m²]
- Shaft coupling clamp
  ◊ 0,31-0,47 in [8-12 mm]
  Ø 0,31-0,63 in [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)	2,0 W
	Power consumption standby (end position)	1,0 W
	Wire sizing	3,0 VA
	Control	2-/3-point
	Feedback signal	potentiometer P1 = 1 kΩ
	Auxiliary switch	-
	Contact load	-
	Switching point	-
	Connection motor	cable 3,2 ft [1000 mm], 3 x AWG 18
	Connection feedback potentiometer	cable 3,2 ft [1000 mm], 3 x AWG 18
	Connection auxiliary switch	-
	Connection GUAC	-
Functional data	Torque	

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Technical data

Functional data	Damper size	up to approx. 10,8 ft² [1 m²]
	Synchronized 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 stops
	Running time	100 s / 90°
	Sound power level	< 35 dB(A)
	Shaft coupling	clamp ◊ 0,31-0,47 in [8-12 mm] Ø 0,31-0,63 in [8-16 mm]
	Position indication	mechanical with pointer
	Service life	> 60 000 cycles (0°...95°...0°)
Safety	Protection class	III (safety extra-low voltage)
	Degree of protection	NEMA 2 (cable downwards)
	UL	UL 60730-1 UL 60730-2-14
	Mode of operation	Typ 1 (UL 60730-2-14)
	Rated impulse voltage supply / control	0,8 kV (UL 60730-1)
	Control pollution degree	3 (UL 60730-1)
	Ambient temperature normal operation	-22°F...+122°F [-30°C...+50°C]
	Storage temperature	-22°F...+176°F [-30°C...+80°C]
	Ambient humidity	5...95% r.F., non condensing (UL 60730-1)
	Maintenance	maintenance-free
Dimensions / Weight	Dimensions	4,5 x 2,6 x 2,4 in [115 x 65 x 61 mm]
	Weight	0,99 lbs [450 g]

Functionality / Properties

Operating mode

2 point:
Through connecting the power supply to blk+red (1+2) moves the servomotor to position 1. Is also wht (1+2+3) connected to the power supply the servomotor is moving to position 0.

3 point:
Through connecting the power supply to blk+red (1+2) moves the servomotor to position 1. Is also blk+wht (1+3) connected to the power supply the servomotor is moving in direction 0.

The servomotor 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.

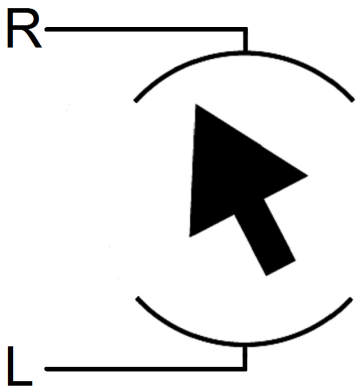
Manual override

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

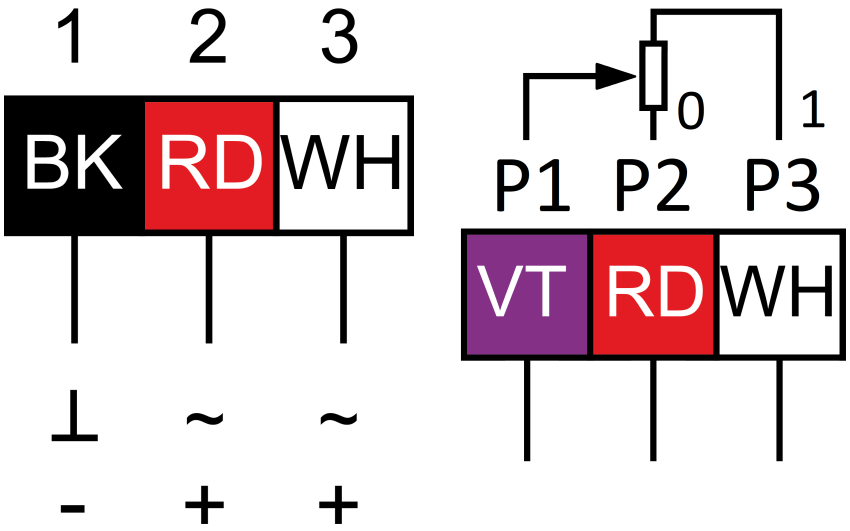
Mode switch

Mode switch with two positions at the housing:

R: rotary rotation right / clockwise
L: rotary rotation left / counter clockwise



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 servomotor cannot be replaced. If the cable is damaged, the servomotor 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