GRUNER
Schalten und Bewegen

Technical data sheet

361C-024-20-S2

Continuous control of Spring return actuator

Description

Spring-return Actuator for adjusting and regulating dampers and valves in air conditioning and ventilation.

- **Torque Motor** **20 Nm**
- **Torque Spring** **20 Nm**
- **Nominal Voltage** **24 VAC/DC**
- **Control** **Continuous 0(2)...10 VDC**
- **Auxiliary switch** **2 x freely adjustable**
- **Damper size** **up to approx 4 m²**
- **Damper shaft** **Clamp**
  ◊ 9-18 mm / Ø 9-26 mm

Technical data

Electrical data	Nominal voltage	24 VAC (50/60 Hz), 24 VDC
	Nominal voltage range	19...29 VAC/DC
	Power consuption motor (motion)	8,0 W
	Power consuption standby (end position)	2,0 W
	Wire sizing	10,0 VA
	Control	Continuous 0(2)...10 VDC / Ri > 100 kΩ 0(4)...20 mA / Rext. = 500Ω
	Position feedback	0(2)...10VDC, max. 5 mA
	Auxiliary switch	2 x SPDT (Ag)
	Contact load	5 (2,5) A, 250 VAC
	Switching point	0°...95°
	Connection Motor	Cable 1000 mm, 4 x 0,75 mm² (halogen free)
	Connection Auxiliary switch	Cable 1000 mm, 6 x 0,75 mm² (halogen free)
	Connection GUAC	-
Functional data	Torque Motor	>20 Nm
	Torque Spring	>20 Nm
	Synchronised speed	±5%
	Direction of rotation	selected by mounting
	Manual override	Manual operation
	Angle of rotation	0°...max.+95° Can be limited with adjustable mechanical end stop min 35° Adaption of operating range to match the mechanical angle of rotation.
	Running time Motor	<150 s / 90°

Technical data

	Running time Spring	<20 s / 90°
Functional data	Sound power level Motor	<35 dB(A)
	Sound power level Spring	<65 dB(A)
	Damper coupling	Clamp ◊ 9...18 mm / Ø 9...26 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	IP54
	EMC LVD	CE (2004/108/EG) CE (2006/95/EG)
	RoHS	CE (2011/65/EU)
	Mode of operation	Typ 1.AA B (EN60730-1)
	Rated impulse voltage	0,8 kV (EN60730-1)
	Control pollution degree	3 (EN60730-1)
	Ambient temperature normal operation	-30°C...+50°C
	Storage temperature	-30°C...+80°C
	Ambient humidity	5...95% relative humidity, non condensing (EN 60730-1)
	Maintenance	maintenance-free
Dimensions/ Weight	Dimensions	193 x 96 x 70 mm
	Weight	ca. 2.400g

Operating mode / Properties

Operating mode

Applying the power supply to BU+BN (1+2) and a reference signal Y to BK (3) of 0(2)…10VDC, moves the actuator to position 1. The actual damper position 0…100% is a feedback signal U for example to share the signal with other actuators. If the power supply is interrupted the damper is moving back to the position 0 by spring force. In the position 0, the actuator still provides the rated torque.

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

Signaling

The two integrated auxiliary switches are freely adjustable in the angle of 0 – 95°. They are activated corresponding to the adjusted angle. The damper position can be checked by the mechanical pointer.

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 operation

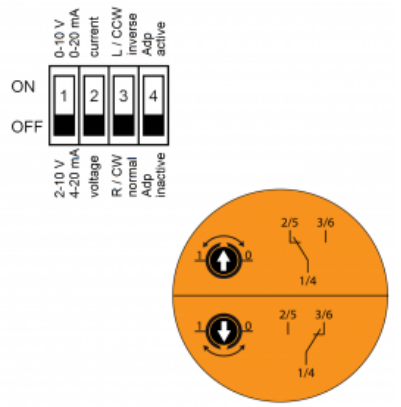
The actuator can be operated manually while the power supply is disconnected. With the supplied lever the position of the damper can be varied and locked. Applying the voltage automatically unlocks the damper.

Mode- switch

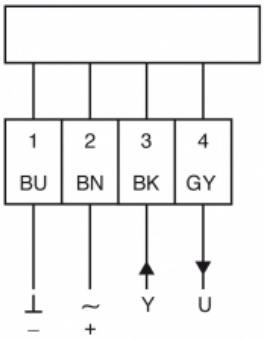
DIP-Switch under the case cover

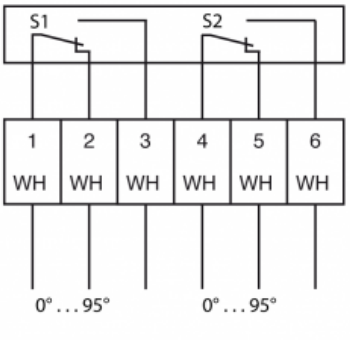
Adaption drive

Adaptation on angular range < 90°
-Disconnect the power supply
-Set the mechanical end stops
-Connect the actuator to the power supply
-Put DIP-Switch 4 to “ON”
-The actuator is adapting on the angular range
-Put DIP-Switch 4 to “Off”
-“Y” and “U” signals now refer to the adapted angular range



Connection / Safety remarks

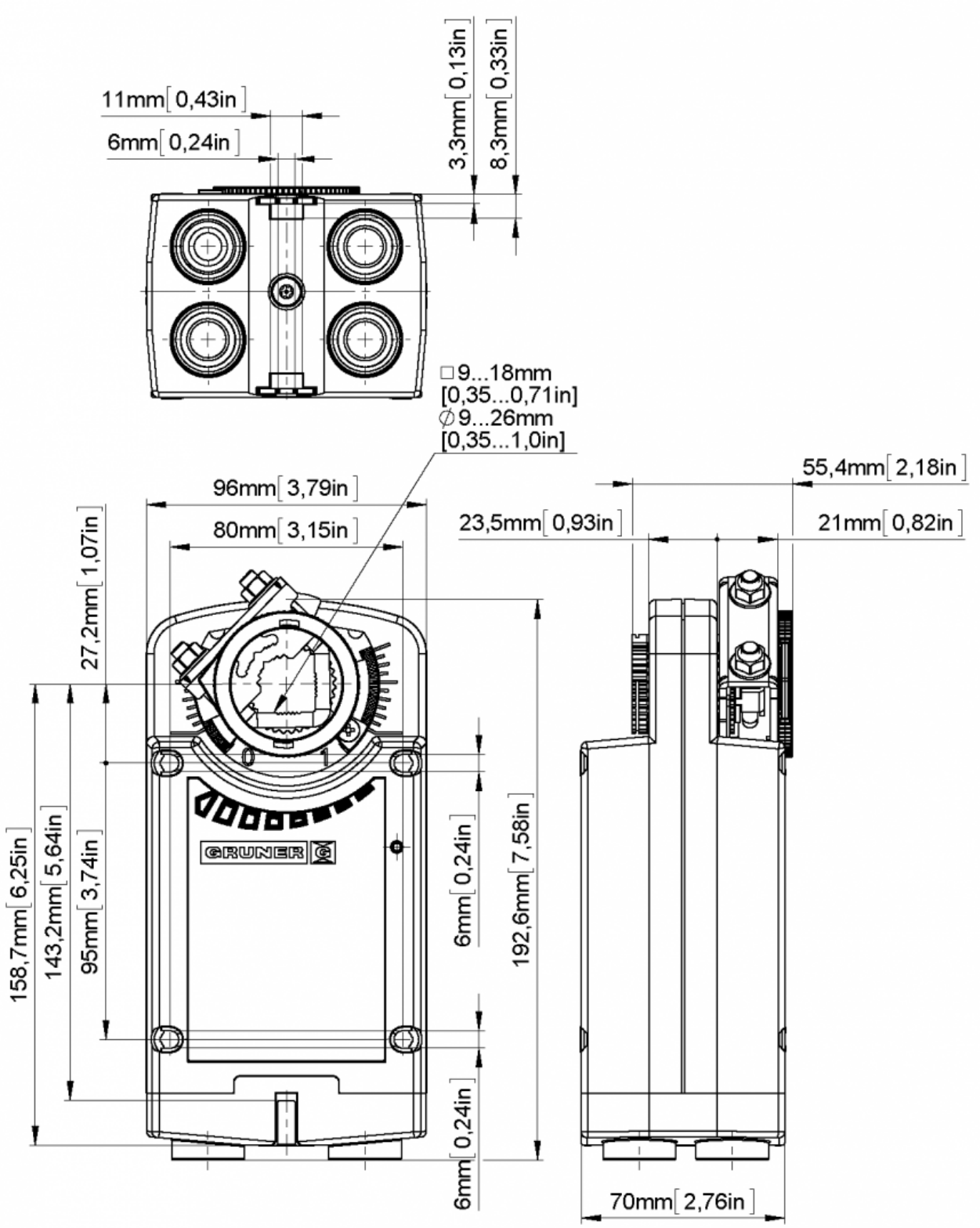




Safety remarks

-Connect via safety isolation transformer
-The actuator is not allowed to be used outside the specified field of application, especially in airplanes.
-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.
-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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