

Technical data sheet

381C-024-20

Continuous control of spring return

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
- valve size up to approx 3 m²
- Damper shaft Clamp
 \diamond 9-16 mm / \varnothing 9-20 mm



Technical data

Nominal voltage	Nominal voltage	24 VAC (50/60 Hz), 24 VDC	
	Nominal voltage range	19...29 VAC/DC	
	Power consumption Motor (Motion)	7,5 W	
	Power consumption Standby (end position)	2 W	
	Wire sizing	10 VA	
	Control	Control	Continuous
			0(2)...10 VDC / Ri >100 k Ω
			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 0,75mm ² (halogen free)	
Connection Auxiliary switch	-		
Connection GUAC	-		
Functional data	Torque Motor	>20 Nm	
	Torque Spring	>20 Nm	
	Synchronised speed	\pm 5%	
	Direction of rotation	selected by mounting	
	Manual override	Manual operation	
	Angle of rotation	0°...max.+95°	
		Adaption of operating range to match the mechanical angle of rotation.	
	Running time Motor	<150 s / 90°	
	Running time Spring	<20 s / 90°	
	Sound power level Motor	<35 dB(A)	
	Sound power level Spring	<65 dB(A)	
Damper coupling	Clamp \diamond 9...16 mm / \varnothing 9...20 mm		

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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
	EMC	CE (2004/108/EG)
	LVD	CE (2006/95/EG)
	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% r.F., non- condensating (EN 60730-1)
	Maintenance	maintenance-free
Dimensions/ Weight	Dimensions	250 x 98 x 60 mm
	Weight	ca. 1.500g

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. If the power supply is interrupted the actuator is moving to position 0 by spring power. The actuator is still maintaining the minimum torque at the damper spindle

The actuator is overload-proof and requires no end switches. It 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.

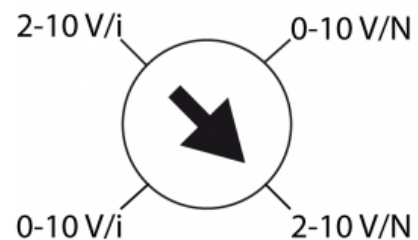
Manual operation

The actuator can be operated only manually while the power supply is off. The supplied lever is to open and lock the damper position. The lock stays until the power supply is put on.

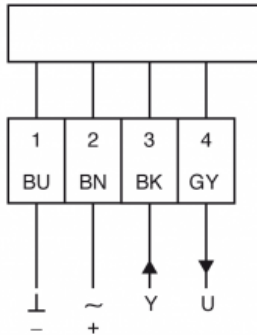
Mode- switch

Mode switch with four rasi positions at the housing

- Rotary direction Normal 2-10 V
- Rotary direction Normal 0-10 V
- Rotary direction invers 2-10 V
- Rotary direction invers 0-10 V



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

