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Technical data sheet

227C-024-05-S1
Continuous control rotary drive

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**
- **Connection**   **1x freely adjustable**
  Auxiliary switch S1
- **Damper size**   **up to approx. 1 m²**
- **Damper coupling**   **Clamp ◊ 8-15 mm / Ø 8-20 mm**

Technical data

Electrical data	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	1x 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,
		4 x 0,75 mm² (halogen free)
	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 ◊ 8-15 mm / Ø 8-20 mm

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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 (safety extra-low voltage)
	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% relative humidity,
		non condensing (EN 60730-1)
	Maintenance	maintenance free
Dimensions/ Weight	Dimensions	115 x 65 x 61 mm
	Weight	ca. 530 g

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.

The actuator is overload-proof, requires no limit switches and stops automatically when the end position 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
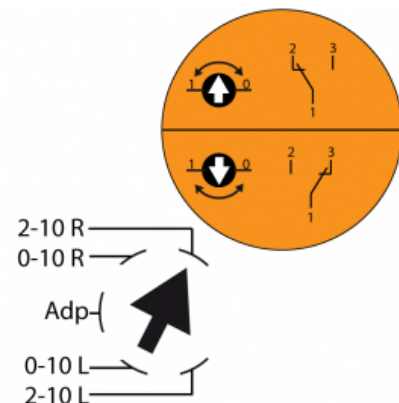
Connection / Safety remarks
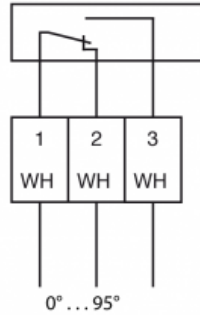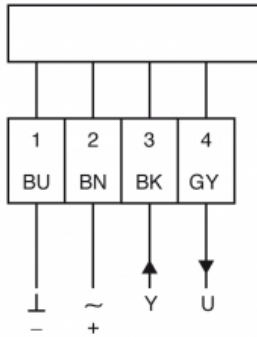
Safety remarks

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