

• Torque motor 2.5 Nm • Nominal voltage AC/DC 24 V • Control modulating 2...10 V • Position feedback 2...10 V

Rotary actuator fail-safe for adjusting dampers in technical building installations

• Air damper size up to approx. 0.5 m<sup>2</sup>

**Technical data sheet** 



## **Technical data**

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
	Power consumption in operation	2.5 W
	Power consumption in rest position	1 W
	Power consumption for wire sizing	4 VA
	Connection supply / control	Cable 1 m, 4 x 0.75 mm <sup>2</sup>
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	2.5 Nm
	Torque fail-safe	2.5 Nm
	Operating range Y	210 V
	Input Impedance	100 kΩ
	Position feedback U	210 V
	Position feedback U note	Max. 0.5 mA
	Position accuracy	±5%
	Direction of motion motor	selectable with switch L/R
	Direction of motion fail-safe	selectable by mounting L/R
	Manual override	No
	Angle of rotation	Max. 95°
	Angle of rotation note	adjustable starting at 37% in 2.5% steps (with mechanical end stop)
	Running time motor	150 s / 90°
	Running time fail-safe	<25 s / 90°
	Sound power level, motor	50 dB(A)
	Mechanical interface	Universal shaft clamp 612.7 mm
	Position indication	Mechanical
	Service life	Min. 60'000 fail-safe positions
Safety data	Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)
	Degree of protection IEC/EN	IP42
	EMC	CE according to 2014/30/EU
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
	Mode of operation	Туре 1.АА
	Overvoltage category	III
	Rated impulse voltage supply / control	0.8 kV
	Pollution degree	3
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-3050°C [-22122°F]
	Storage temperature	-4080°C [-40176°F]
	Servicing	maintenance-free



TF24-SR

Weigh	t Weight 0.62 kg	
Safety notes		
Salety hotes		
Â	<ul> <li>This device has been designed for use in stationary heating, ventilation systems and must not be used outside the specified field of application, in any other airborne means of transport.</li> <li>Outdoor application: only possible in case that no (sea) water, snow, ice aggressive gases interfere directly with the device and that it is ensured conditions remain within the thresholds according to the data sheet at</li> <li>Only authorised specialists may carry out installation. All applicable lega installation regulations must be complied during installation.</li> <li>The device may only be opened at the manufacturer's site. It does not can be replaced or repaired by the user.</li> <li>Cables must not be removed from the device.</li> <li>The device contains electrical and electronic components and must not household refuse. All locally valid regulations and requirements must be</li> </ul>	, especially in aircraft or e, insolation or d that the ambient any time. al or institutional contain any parts that be disposed of as
Product features		
Mode of operation	The actuator is connected with a standard control signal of 010 V and m the operating position at the same time as tensioning the return spring. back to the fail-safe position by spring force when the supply voltage is ir	The damper is turned
Simple direct mounting	Simple direct mounting on the damper shaft with a universal shaft clamp rotation device to prevent the actuator from rotating.	o, supplied with an anti-
Adjustable angle of rotation	Adjustable angle of rotation with mechanical end stops.	
High functional reliability	The actuator is overload protected, requires no limit switches and autom end stop is reached.	atically stops when the
Accessories		
Electrical accessories	Description	Туре
	Signal converter voltage/current 100 kΩ Supply AC/DC 24 V Positioner for wall mounting Positioner for built-in mounting Positioner for front-panel mounting Positioner for wall mounting	Z-UIC SGA24 SGE24 SGF24 CRP24-B1
Mechanical accessories	Description	Туре
	Actuator arm Shaft extension 170 mm Ø10 mm for damper shaft Ø 616 mm Ball joint suitable for damper crank arm KH8 / KH10, Multipack 10 pcs. Ball joint suitable for damper crank arm KH8, Multipack 10 pcs. Damper crank arm Slot width 8.2 mm, clamping range Ø1018 mm Screw fastening kit Angle of rotation limiter, with end stop Form fit adapter 8x8 mm Mounting kit for linkage operation for flat and side installation Anti-rotation mechanism 180 mm, Multipack 20 pcs.	AH-TF AV6-20 KG10A KG8 KH8 SB-TF ZDB-TF ZF8-TF ZG-TF1 Z-ARS180
Electrical installation		

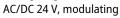


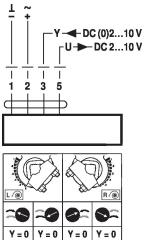
Supply from isolating transformer.

Parallel connection of other actuators possible. Observe the performance data.



# Wiring diagrams





ANAA

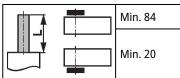
## Cable colours:

- 1 = black
- 2 = red
- 3 = white

5 = orange

## Dimensions

### Spindle length



## **Clamping range**

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612.7	612.7	

