

Technical data sheet

360TA-024-12-S2/ST01/8Fx

Spring return actuator for fire and smoke protection

Description

Spring return actuator including external thermal tripping device TA-72 (72°C) for fire and smoke protection dampers of 90° angle of rotation in HVAC installations

- Running time motor 75 s / 90°
- Running time spring 20 s / 90°
- Torque motor 18 Nm
- Torque spring 12 Nm
- Nominal voltage 24 VAC/DC
- Control 2-point
- Auxiliary switch 2x fixed, not adjustable
- Connector COMES, BKN, BKE, RBFU
- Shaft coupling form fit 8 mm (8F 8)
form fit 10 mm (8F10)
form fit 12 mm (8F12)



Technical data

Electrical data	Nominal voltage	24 VAC/DC, 50/60 Hz
	Nominal voltage range	19...29 VAC/DC
	Power consumption motor (motion)	5,0 W
	Power consumption standby (end position)	2,0 W
	Wire sizing	7,0 VA
	Wire sizing note	
	Control	2-point
	Feedback signal	-
	Auxiliary switch	2 x SPDT (AgAu)
	Contact load	1 mA...5 (2,5) A, 5 VDC...250 VAC
	Switching point	5° / 80°
	Connection motor	cable 1000 mm, 2 x 0,75 mm ² (halogen free) connector Tyco no 172166-1
	Connection auxiliary switch	cable 1000 mm, 6 x 0,75 mm ² (halogen free) connector Tyco no 172168-1
	Connection GUAC	-

Technical data

Functional data	Torque motor	18 Nm
	Torque spring	12 Nm
	Synchronized speed	±5%
	Direction of rotation	selected by mounting
	Manual override	manual operation
	Angle of rotation	-5°...max. +90°
	Running time motor	75 s / 90°
	Running time spring	20 s / 90°
	Sound power level motor	< 45 dB(A)
	Sound power level spring	< 65 dB(A)
	Shaft coupling	form fit 8 mm (8F 8) form fit 10 mm (8F10) form fit 12 mm (8F12)
	Position indication	mechanical with pointer
	Service life	> 60 000 cycles (-5°...+90°...-5°)
	Thermal tripping device	2 x acc. EN 60691
	Temperature TF1	+72°C (inside-duct)
	Temperature TF2	+71°C (outside-duct)
Safety	Protection class	III (safety extra-low voltage)
	Degree of protection	IP 54
	EMC	CE (2014/30/EU)
	LVD	CE (2014/35/EU)
	RoHS	CE (2011/65/EU - 2015/863/EU - 2017/2102/EU)
	Mode of operation	Typ 1 (EN 60730-1)
	Rated impulse voltage supply / control	0,8 kV (EN 60730-1)
	Control pollution degree	3 (EN 60730-1)
	Ambient temperature normal operation	-30°C...+50°C
	Ambient temperature safety operation	> +75°C
	Storage temperature	-30°C...+50°C
	Ambient humidity	5...95% r.F., non condensing (EN 60730-1)
Maintenance	maintenance free	
Dimensions / Weight	Dimensions	193 x 96 x 60 mm
	Weight	1900 g

Functionality / Properties

Operating mode

Connect power supply to wire 1+2, actuator drives to position 1 while the pre-tensioned spring is wound up the same time. If the power supply is interrupted, actuator drives back to position 0 by spring power. The actuator is still maintaining the minimum torque at the damper spindle.

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

Operating mode TAE

The external thermoelectric tripping device consists of two thermal fuses TF1 and TF2. If the ambient temperature $+71^{\circ}\text{C}$ or the inside-duct temperature $+72^{\circ}\text{C}$ exceeds, is tripped the temperature fuse and the power supply will be irreversible interrupted. The tripping device TAE is equipped with a test switch and a LED.

The LED is green if the actuator is powered on and the fuses have not tripped.

The LED is red if the test switch is pressed.

Direct mounting

Simple direct mounting on the damper shaft with a form fit, protection against rotating with enclosed anti-rotation lock or rather at intended attachment points.

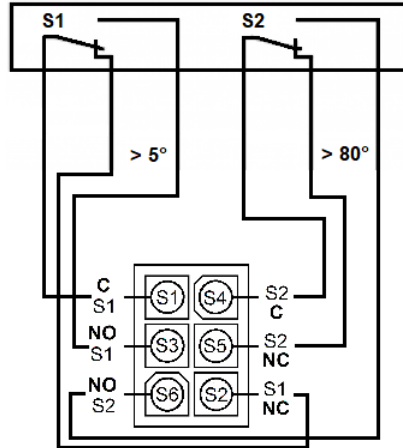
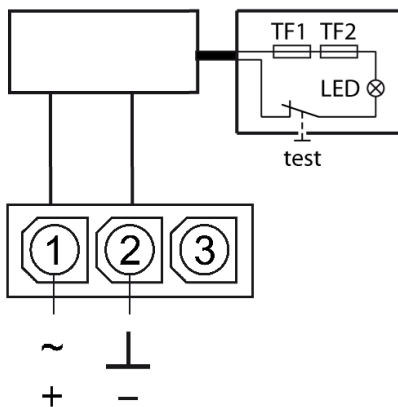
Manual override

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

Signaling

The two integrated auxiliary switches are activated at the fixed switching positions ($> 5^{\circ}$ and $> 80^{\circ}$). The damper position can be checked by the mechanical pointer.

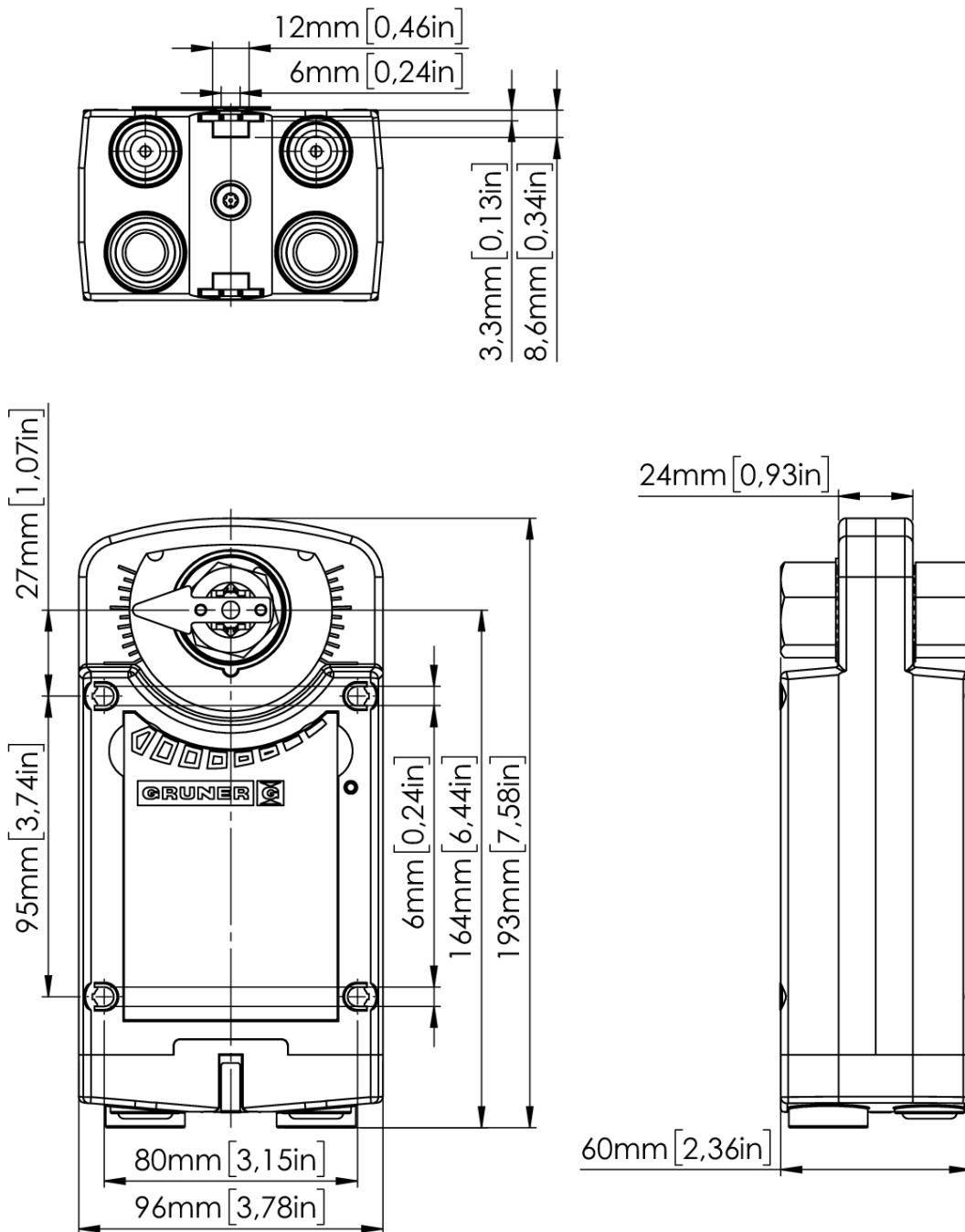
Connector / Security Note



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 may not be removed from the device.
- The cable of this actuator cannot be replaced. If the cable is damaged, the actuator 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.
- The device is adapted and mounted to the fire and smoke damper by the damper manufacturer. For this reason, the device is only supplied direct to safety damper manufacturer. the manufacturer then bears full responsibility for the proper functioning of the damper.

Technical Drawing



Technical drawing - TAE

