

Spring-return actuator with emergency control function for adjusting dampers in technical building installations

- · Air damper size up to approx. 2 m²
- Nominal torque 10 Nm
- Nominal voltage AC 24...240 V / DC 24...125 V
- · Control Open-close



Technical data		
Electrical data	Nominal voltage	AC 24240 V / DC 24125 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2264 V / DC 21.6137.5 V
	Power consumption in operation	6 W
	Power consumption in rest position	2.5 W
	Power consumption for wire sizing	9.5 VA
	Connection supply / control	Cable 1 m, 2 x 0.75 mm <sup>2</sup>
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 10 Nm
	Torque spring return	Min. 10 Nm
	Direction of motion motor	Selectable by mounting L / R
	Direction of motion emergency control function	Selectable by mounting L / R
	Manual override	By means of hand crank and locking switch
	Angle of rotation	Max. 95°
	Angle of rotation note	adjustable starting at 33% in 2.5% steps (with mechanical end stop)
	Running time motor	75 s / 90°
	Running time emergency control position	<20 s / 90°
	Running time emergency setting position note	<20 s @ -2050°C / <60 s @ -30°C
	Sound power level motor	45 dB(A)
	Spindle driver	Universal spindle clamp 1025.4 mm
	Position indication	Mechanical
	Service life	Min. 60,000 emergency positions
Safety	Protection class IEC/EN	II Protective insulated
	Protection class UL	II Protective insulated
	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2, UL Enclosure Type 2
	EMC	CE according to 2014/30/EU
	Low voltage directive	CE according to 2014/35/EU
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
	Certification UL	cULus according to UL 60730-1A, UL 60730-2-14 and CAN/CSA E60730-1:02
	Mode of operation	Type 1.AA
	Rated impulse voltage supply / control	4 kV
	Control pollution degree	3
	Ambient temperature	-3050°C
	Non-operating temperature	-4080°C
	Ambient humidity	95% r.h., non-condensing
	Maintenance	Maintenance-free

# Safety notes



Weight

Weight

• The device must not be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.

2.1 kg



### Safety notes

- Outdoor application: only possible in case that no (sea)water, snow, ice, insolation
  or aggressive gases interfere directly with the actuator and that is ensured that the
  ambient conditions remain at any time within the thresholds according to the data
  sheet.
- Caution: Power supply voltage!
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- · Cables must not be removed from the device.
- To calculate the torque required, the specifications supplied by the damper manufacturers concerning the cross-section, the design, the installation site and the ventilation conditions must be observed.
- The device contains electrical and electronic components and must not be disposed
  of as household refuse. All locally valid regulations and requirements must be
  observed.

#### **Product features**

**Mode of operation** The actuator is eq

The actuator is equipped with a universal voltage feed module that can utilise supply voltages of AC 24 ... 240V and DC 24 ... 125V.

The actuator moves the damper to the operating position at the same time as tensioning the return spring. The damper is turned back to the emergency position by spring force when the supply voltage is interrupted.

Simple direct mounting

Simple direct mounting on the damper spindle with an universal spindle clamp, supplied with an anti-rotation device to prevent the actuator from rotating.

Manual override

By using the hand crank the damper can be actuated manually and engaged with the locking switch at any position. Unlocking is carried out manually or automatically by applying the operating voltage.

High functional reliability

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

Adjustable angle of rotation

Adjustable angle of rotation with mechanical end stops.

# Accessories

Description	Туре
Auxiliary switch, 2 x SPDT	S2A-F
Feedback potentiometer, 200 Ohm, incl. installation accessories	P200A-F
Feedback potentiometer 1 kOhm, incl. installation accessories	P1000A-F
Description	Туре
Shaft extension 250 mm, for damper spindles Ø 825 mm	AV8-25
End stop indicator for NFA / SFA	IND-AFB
Spindle clamp set for NFA/SFA (1", 3/4", 1/2")	K7-2
Straight ball joint with M8, suitable for damper crank arms KH8	KG10A
Angled ball joint with M8, suitable for damper crank arms KH8	KG8
Damper crank arm, for damper spindles	KH8
Damper crank arm for NFA / SFA, for 3/4" spindles	KH-AFB
Form fit insert 10x10 mm, for spring return actuators NG	ZF10-NSA-F
Form fit insert 12x12 mm, for spring return actuators NG	ZF12-NSA-F
Form fit insert 16x16 mm, for spring return actuators NG	ZF16-NSA-F
Damper crank arm, for spring return actuators NG	ZG-AFB
Base plate extensions for NFA/SFA	Z-SF
	Auxiliary switch, 2 x SPDT Feedback potentiometer, 200 Ohm, incl. installation accessories Feedback potentiometer 1 kOhm, incl. installation accessories  Description  Shaft extension 250 mm, for damper spindles Ø 825 mm  End stop indicator for NFA / SFA  Spindle clamp set for NFA/SFA (1", 3/4", 1/2")  Straight ball joint with M8, suitable for damper crank arms KH8  Angled ball joint with M8, suitable for damper crank arms KH8  Damper crank arm, for damper spindles  Damper crank arm for NFA / SFA, for 3/4" spindles  Form fit insert 10x10 mm, for spring return actuators NG  Form fit insert 16x16 mm, for spring return actuators NG  Damper crank arm, for spring return actuators NG



# **Electrical installation**

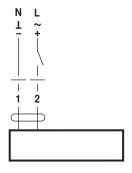


### **Notes**

- Caution: Power supply voltage!
- Parallel connection of other actuators possible. Observe the performance data.

### Wiring diagrams

AC 24...240 V / DC 24...125 V, open-close



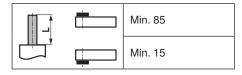
# Cable colours:

1 = blue

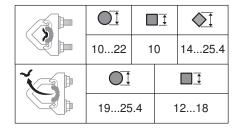
2 = brown

# Dimensions [mm]

# Spindle length



### Clamping range



# **Dimensional drawings**

