

Retrofit rotary actuator for rotary valves and butterfly valves

- Nominal torque 20 Nm
- Nominal voltage
AC 24...240 V / DC 24...125 V
- Control Open-close



Technical data

Electrical data	Nominal voltage	AC 24...240 V / DC 24...125 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...264 V / DC 21.6...137.5 V
	Power consumption in operation	7 W
	Power consumption in rest position	3 W
	Power consumption for wire sizing	18 VA
	Connection supply / control	Cable 1 m, 2 x 0.75 mm ²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	Min. 20 Nm
	Torque spring return	Min. 20 Nm
	Direction of rotation spring-return	selectable: Deenergised NC, valve closed (A - AB = 0%) Deenergised NO, valve open (A - AB = 100%)
	Manual override	By means of hand crank and locking switch
	Angle of rotation	90°
	Running time motor	75 s / 90°
	Running time emergency setting position	<20 s / 90°
	Sound power level motor max.	45 dB(A)
	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 2004/108/EC
	Low voltage directive	CE according to 2006/95/EC
	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	0...50°C	
Non-operating temperature	-40...80°C	
Ambient humidity	95% r.h., non-condensing	
Maintenance	Maintenance-free	
Mechanical data	Connection flange	F03/F04/F05
Weight	Weight approx.	2.3 kg

Safety notes


- This device has been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Caution: Power supply voltage!
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.

Safety notes

- 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.
- The cables must not be removed from the device.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product features

Mode of operation 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 valve to the operating position at the same time as tensioning the return spring. The valve is turned back to the emergency position by spring force when the supply voltage is interrupted.

Application For rotary valves and butterfly valves with the following mechanical specifications:
– ISO 5211: F03, F04, F05 (hole circle diameter on the flange for mounting the fitting)
– ISO 5211: quadratic, flat head or wedge-shaped stem head geometry

ZSFV..

Type	s [mm]
ZSFV-08	8
ZSFV-09	9
ZSFV-10	10
ZSFV-11	11
ZSFV-12	12
ZSFV-14	14

ZSFF..

Type	s [mm]	d ₈ [mm]
ZSFF-08	8	10
ZSFF-09	9	12
ZSFF-10	10	14
ZSFF-11	11	14
ZSFF-14	14	18

ZSFK..

Type	d ₇ [mm]
ZSFK-12	12
ZSFK-14	14

Direct mounting Simple direct mounting on the rotary valve or butterfly valve with mounting flange. The mounting orientation in relation to the fitting can be selected in 90° steps.

Manual override Manual actuation of the valve with manual elevator crank, engagement with the locking switch at any position. Unlocking is manual or automatic 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 stop.

Accessories

	Description	Type
Mechanical accessories	Form fit insert SRF, 8x8x55 mm	ZSFV-08
	Form fit insert SRF, 9x9x55 mm	ZSFV-09
	Form fit insert SRF, 10x10x55 mm	ZSFV-10
	Form fit insert SRF, 11x11x55 mm	ZSFV-11
	Form fit insert SRF, 12x12x55 mm	ZSFV-12
	Form fit insert SRF, 14x14x55 mm	ZSFV-14
	Form fit insert SRF, 8xØ17x55 mm	ZSFF-08
	Form fit insert SRF, 9xØ12x55 mm	ZSFF-09
	Form fit insert SRF, 10xØ17x55 mm	ZSFF-10
	Form fit insert SRF, 11xØ14x55 mm	ZSFF-11
	Form fit insert SRF, 14xØ18x55 mm	ZSFF-14
	Form fit insert SRF, Ø12x4x55	ZSFK-12
	Form fit insert SRF, Ø14x5x55	ZSFK-14

Electrical installation



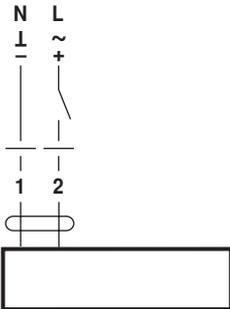
Notes

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

Electrical installation

Wiring diagrams

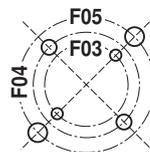
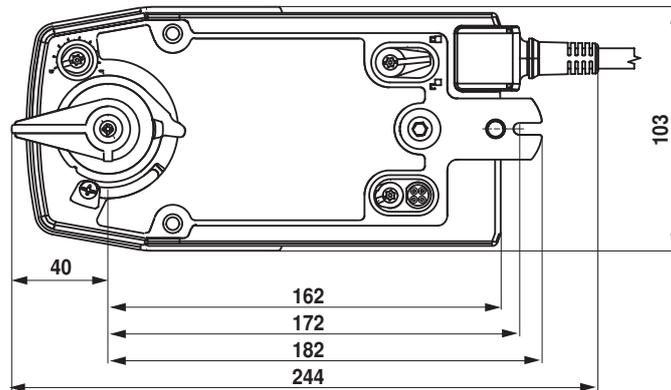
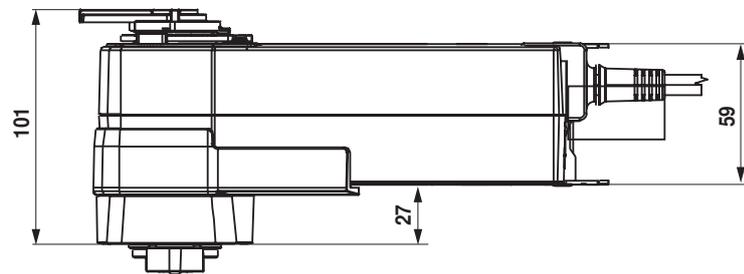
AC 24...240 V / DC 24...125 V, open-close



Cable colours:
1 = blue
2 = brown

Dimensions [mm]

Dimensional drawings



F03	∅ 36	2 x M5
F04	∅ 42	2 x M5
F05	∅ 50	2 x M6

Further documentation

- General notes for project planning