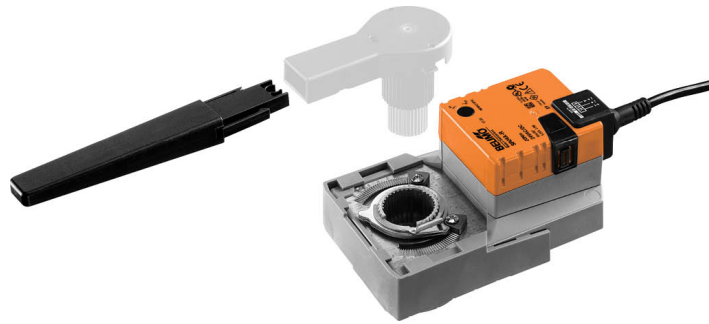


- Torque motor 20 Nm
- Nominal voltage AC/DC 24 V
- Control Open/close, 3-point



Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 19.2...28.8 V
	Power consumption in operation	2.5 W
	Power consumption in rest position	0.2 W
	Power consumption for wire sizing	5.5 VA
	Connection supply / control	Cable 1 m, 3 x 0.75 mm ²
	Parallel operation	Yes (note the performance data)
Functional data	Torque motor	20 Nm
	Manual override	with push-button, can be locked
	Running time motor	90 s / 90°
	Sound power level, motor	45 dB(A)
	Position indication	Mechanical, integrated, two-section
Safety data	Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)
	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	UL Enclosure Type 2
	EMC	CE according to 2014/30/EU
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
	UL Approval	cULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case
	Type of action	Type 1
	Rated impulse voltage supply / control	0.8 kV
	Pollution degree	3
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	0...50°C [32...122°F]
	Storage temperature	-40...80°C [-40...176°F]
Servicing	maintenance-free	
Mechanical data	Connection flange	F03/F04/F05
	Weight	Weight
		0.91 kg

Safety notes



- This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or aggressive gases interfere directly with the device and that it is ensured that the ambient conditions remain within the thresholds according to the data sheet at any time.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The switch for changing the direction of rotation may only be operated by authorised specialists. The direction of rotation must not in particular be reversed in a frost protection circuit.
- The surface temperature between actuator and fitting may not exceed 50°C.
- 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.
- 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

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 spindle head geometry

Tappet shaft The form fit adapter is not included in the scope of delivery (see «Accessories»).

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

Type	s [mm]	d8 [mm]
ZSF-08	8	17
ZSF-09	9	12
ZSF-10	10	17
ZSF-11	11	14
ZSF-14	14	18

Type	d7 [mm]
ZSK-12	12
ZSK-14	14

Type
ZSV-11-4K

Simple 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 override with push-button possible (the gear train is disengaged for as long as the button is pressed or remains locked).

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 automatically stops when the end stop is reached.

Position indication The two-section position indication (lever) can be reduced to 70 mm, the front part of the lever can be attached to the cable (clip).

Accessories

Electrical accessories	Description	Type
	Auxiliary switch 1 x SPDT add-on	S1A
	Auxiliary switch 2 x SPDT add-on	S2A
	Feedback potentiometer 140 Ω add-on	P140A
	Feedback potentiometer 200 Ω add-on	P200A
	Feedback potentiometer 500 Ω add-on	P500A
	Feedback potentiometer 1 kΩ add-on	P1000A
	Feedback potentiometer 2.8 kΩ add-on	P2800A
	Feedback potentiometer 5 kΩ add-on	P5000A
	Feedback potentiometer 10 kΩ add-on	P10000A
Mechanical accessories	Description	Type
	Form fit adapter square 8x8x57 mm (LxWxH)	ZSV-08
	Form fit adapter square 9x9x57 mm (LxWxH)	ZSV-09
	Form fit adapter square 10x10x57 mm (LxWxH)	ZSV-10
	Form fit adapter square 11x11x57 mm (LxWxH)	ZSV-11
	Form fit adapter square 11x11x57 mm (LxWxH, inside square)	ZSV-11-4K
	Form fit adapter square 12x12x57 mm (LxWxH)	ZSV-12
	Form fit adapter square 14x14x57 mm (LxWxH)	ZSV-14
	Form fit adapter flat head 8xØ17x57 mm (WxØxH)	ZSF-08
	Form fit adapter flat head 9xØ12x57 mm (WxØxH)	ZSF-09
	Form fit adapter flat head 10xØ17x57 mm (WxØxH)	ZSF-10
	Form fit adapter flat head 11xØ14x57 mm (WxØxH)	ZSF-11
	Form fit adapter flat head 14xØ18x57 mm (WxØxH)	ZSF-14
	Form fit adapter wedge groove Ø12x4x57 mm (ØxWxH)	ZSK-12
	Form fit adapter wedge groove Ø14x5x57 mm (ØxWxH)	ZSK-14

Electrical installation


Supply from isolating transformer.

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

Direction of rotation switch is covered. Factory setting: Direction of rotation Y2.

Wire colours:

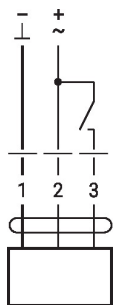
1 = black

2 = red

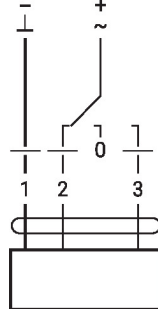
3 = white

Wiring diagrams

AC/DC 24 V, open/close

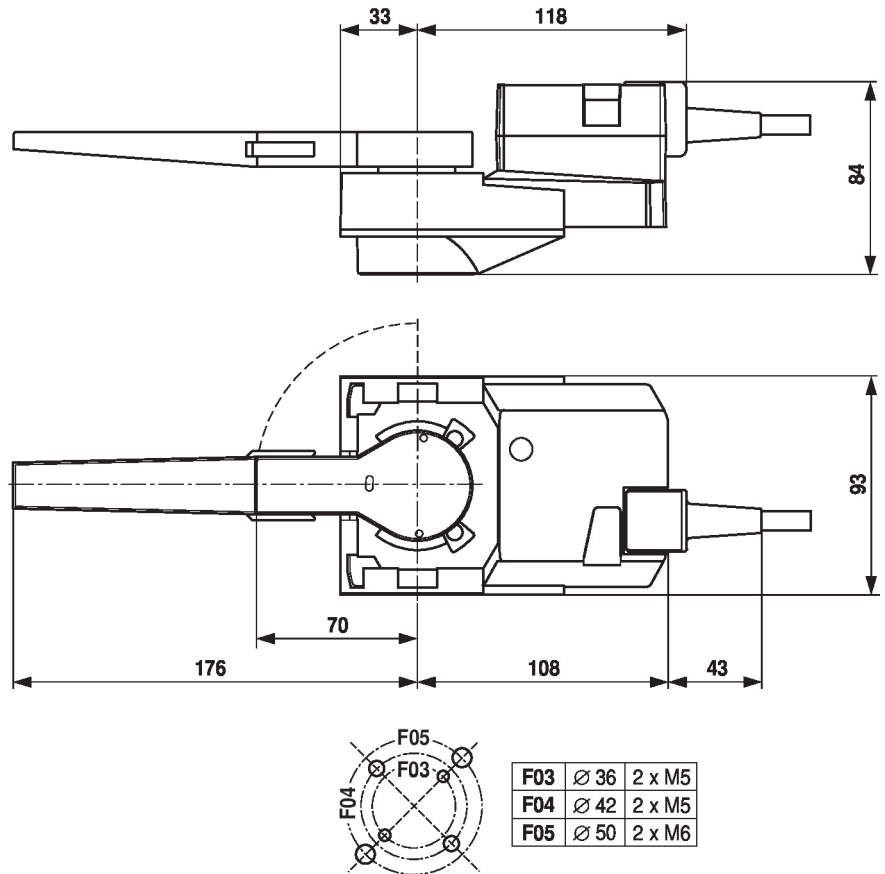


AC/DC 24 V, 3-point



1	2	3	
			A - AB = 0%
			A - AB = 100%
			stop
			A - AB = 100%

Dimensions



Further documentation

- General notes for project planning