

ACTUATOR SERIES ARC300

ESBE Actuator Series ARC300 is a rotary actuator with 30Nm torque and an operating range of 90° suitable for the ESBE mixing valves DN100-150 and butterfly valves DN80-100. The ARC300 actuator can also be used as damper actuator for dampers up to 6 m². The actuator is available in 24V AC/DC or 230V AC/DC versions with 2-point, 3-point or proportional signal control.

APPLICATION

The ESBE series ARC300 is an actuator suitable for both rotary mixing valves and butterfly valves, as well as damper applications. Thanks to the high torque ARC300 is recommended to work with the largest ESBE valve DN100-150 and with dampers sizes up to 6m². The actuator comes with 2 sets of adapters, one set for assembly on ESBE valves 3F/4F and one set with clamp coupling for damper spindle assembly.

VERSIONS

The series consist of 4 different versions:

- ARC361 with 2-point / 3-point control signal, 230V AC/DC power supply and 1 meter preassembled cable.
- ARC363 with 3-point / 2-point control signal, 24V AC/DC power supply and 1 meter preassembled cable.
- ARC368 with proportional control signal (Y) (0-10V, 2-10V, 0-20mA, 4-20mA) with 2 independent premounted auxiliary switches, 24V AC/DC power supply and 2x1 meter preassembled cables. The version has a 0(2)-10V feedback signal (U) based on the real position. The auxiliary switches can be set in any positions and are easily set on the front of the actuator cover.
- ARC369 with proportional control signal (Y) (0-10V, 2-10V, 0-20mA, 4-20mA), 24V AC/DC power supply and 1 meter preassembled cable. The version has a 0(2)-10V feedback signal (U) based on the real position.

All versions can be manually operated by the self-resetting pushbutton (the gearbox remains disengaged as long as the pushbutton is pressed). Standard operating range is 90° but can be limited in both opening and closing position by easily adjusting the end-stops on the front of the cover. Proportional control signal and feedback signal will be adjusted to the new operating range when calibration/adaptation process is performed.



ARC300

SUITABLE VALVES AND DAMPERS

Together with a valve assembly kit the ARC300 is easily mounted on the ESBE valve series 3F and 4F from size DN50 to DN150, or on the ESBE butterfly valve series VBF100 from size DN80 to DN100.

Together with damper assembly kit the ARC300 is easily mounted on square spindle with dimension 9...18 mm and round spindle with dimension 9...26 mm. ARC300 can be used on dampers up to 6m² but specifications supplied by the damper manufacturers (cross section, design, installation site) and the air flow conditions must be observed.

ADAPTOR KITS

Adaptor kit designed for ESBE mixing valve series 3F/4F or damper spindle assembly is supplied with each actuator. Adaptor kit for ESBE butterfly valve series VBF100, size DN80 to DN100, can be ordered separately.

Art. No.

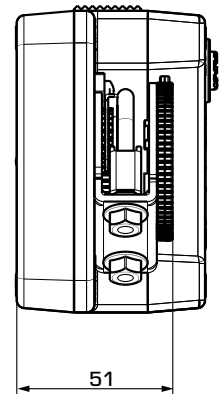
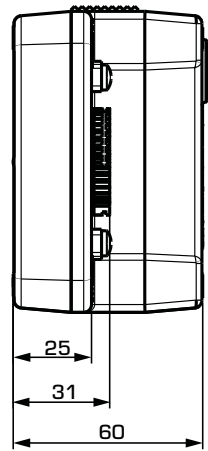
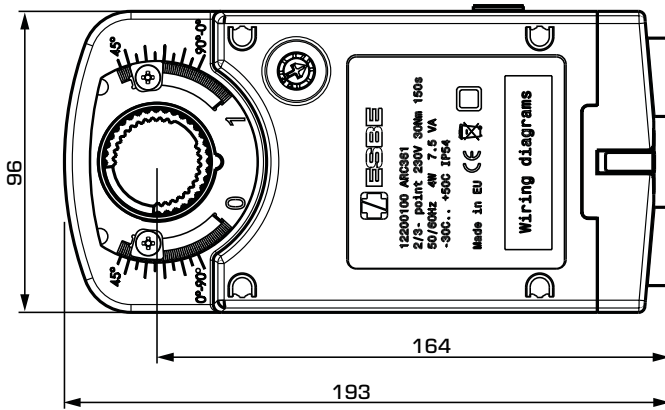
13905200 _____ ESBE butterfly valve series VBF100

TECHNICAL DATA

Ambient temperature: _____ max. +50°C
 _____ min. -30°C
 Ambient humidity: _____ 5...95% r.H. non-condensating
 Power supply: _____ 24V AC (50/60 Hz), 24V DC
 _____ 230V AC (50/60 Hz), 230V DC
 Nominal voltage range: _____ 19...29V AC/DC,
 _____ 85...265V AC/DC
 Power consumption, running: 24V _____ 4,5 W
 _____ 230V _____ 4,0 W
 Power consumption, standby: 24V/230V _____ 1,5 W
 Wiring sizing: 24V _____ 6,0 VA
 _____ 230V _____ 7,5 VA
 Enclosure rating: _____ IP54
 Protection class: 24V _____ III
 _____ 230V _____ II
 Torque: _____ 30Nm
 Running time: _____ 150s/90°
 Rating auxiliary switch (ARC368): _____ 5(2,5) A, 250V AC
 Cable length: _____ 1m
 Weight: _____ 1,7 kg

CE LVD 2014/35/EU
 EMC 2014/30/EU
 RoHS 2011/65/EU

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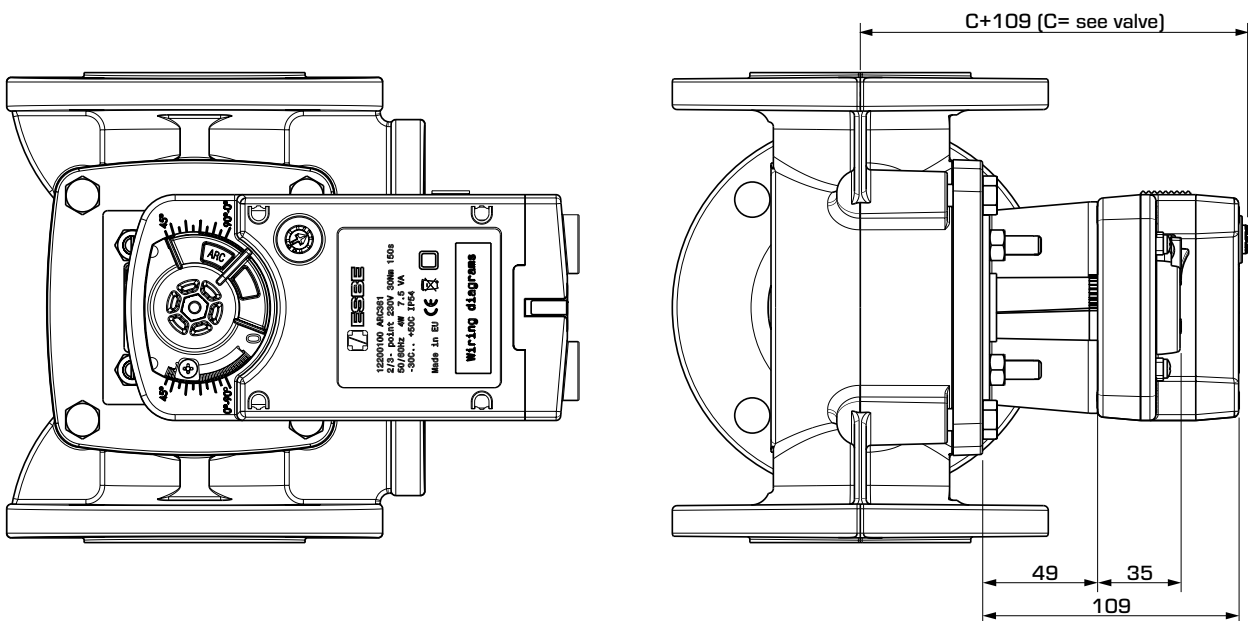
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Damper assembly kit

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Art. No.	Reference	Voltage [V AC/DC]	Running time 90° [s]	Control signal	Torque [Nm]	Note
12200100	ARC361	230	150	2-point SPST/ 3-point SPDT*	30	
12201100	ARC363	24	150	2-point SPST/ 3-point SPDT*	30	
12220200	ARC368	24	150	Proportional**	30	1)
12220100	ARC369	24	150	Proportional**	30	

* 2-point SPST = Single Pole Single Throw; 3-point SPDT = Single Pole Double Throw ** Proportional = 0-10 V, 2-10 V, 0-20 mA, 4-20 mA
Note 1) With 2 independent pre-mounted auxiliary switches

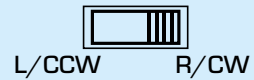
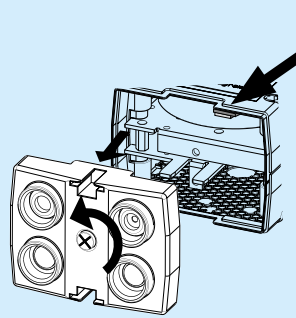
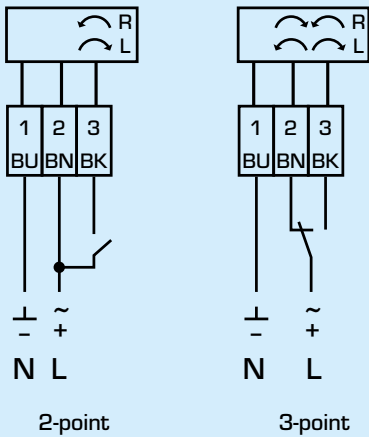


Installation dimensions for Actuator Series ARC300, with valve assembly kit

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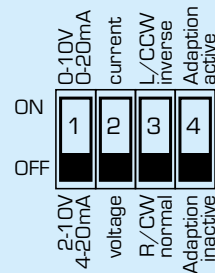
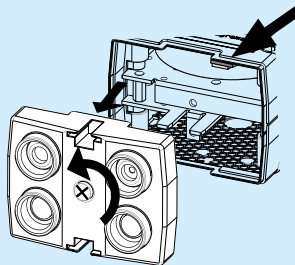
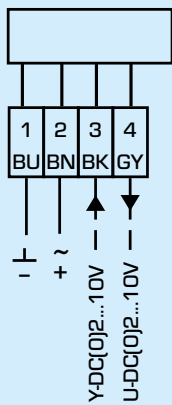
WIRING

Electrical connection ARC361/ARC363 (2-point/ 3-point)

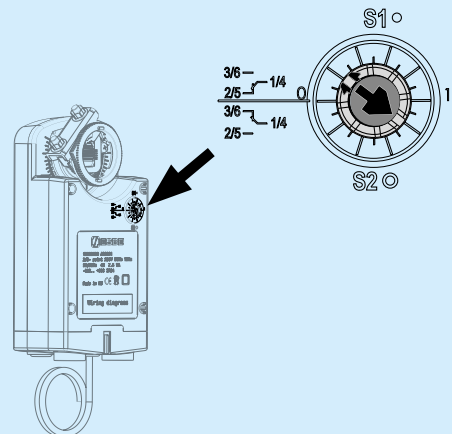
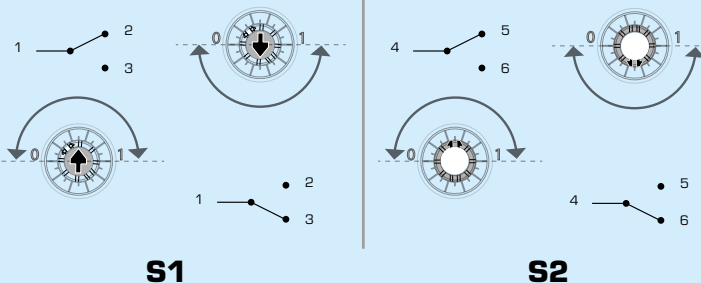


CCW = Counter clockwise working direction
CW = Clockwise working direction

Electrical connection ARC368/ARC369 (Proportional)



Auxiliary switch settings ARC368



S1 and S2 auxiliary switches are independent from each other and can be set individually. Auxiliary switch S1 is set by moving the inner circle to the desirable position, when the inner arrow points on the upper semicircle wire 1 is connected to wire 2, and when the inner arrow points on the lower semicircle wire 1 is connected to wire 3. Auxiliary switch S2 is set by moving the outer circle to the desirable position, when the outer arrow points on the upper semicircle wire 4 is connected to wire 5, and when the outer arrow points on the lower semicircle wire 4 is connected to wire 6.

The inner and outer circle rotates 180° counter clock wise (CCW) when the actuator moves 90° clock wise (CW) and vice versa.