

ACTUATOR SERIES ARD100

ESBE Actuator Series ARD100 is a spring return rotary actuator with 10Nm torque and an operating range of 90° suitable for the ESBE mixing valves up to DN80 and butterfly valves up to DN40. The ARD100 can also be used as damper actuator for dampers up to 2 m². The actuators is available in 24V AC/DC or 230V AC/DC versions with 2-point or proportional control signal.

APPLICATION

The ESBE series ARD100 is a spring return actuator suitable for both rotary mixing valves, butterfly valves as well as damper applications.

The ARD100 is suitable to work with ESBE valves up to DN80 and with damper sizes up to 2m². 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 3 different versions:

- ARD155 with 2-point control signal, 230V AC/DC power supply and 1m preassembled cable.
- ARD157 with 2-point control signal, 24V AC/DC power supply and 1m preassembled cable.
- ARD169 with proportional control signal (0-10V, 2-10V, 0-20mA, 4-20mA), 24V AC/DC power supply and 1m preassembled cable. The version has a 0(2)-10V feedback signal based on the real position.

All versions have a spring return function that moves the actuator to closed position in case of power failure. The direction of rotation is selected by the mounting side of the actuator, see further information in chapter Settings. All versions can be manually operated when the power supply is switched off. A lever, to be used when manually opening and locking the actuator in the manual position, is attached to the cable. The manual position is kept until manually release or power supply is switched on.

Standard operating range is 90° but can be limited in the open position by easily adjusting the end-stop 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.



ARD100

SUITABLE VALVES AND DAMPERS

Together with the valve assembly kit the ARD100 is easily mounted on the ESBE valve series 3F and 4F from size DN32 to DN80, or on the ESBE butterfly valve series VBF100 from size DN20 to DN40.

Together with damper assembly kit the ARD100 is easily mounted on square spindle with dimension 9...18 mm and round spindle with dimension 9...26 mm. ARD100 can be used on dampers up to 2m² 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 DN20 to DN40, can be ordered separately.

Art. No.

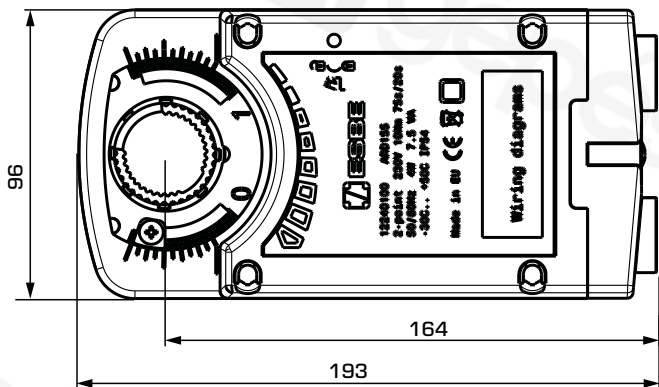
13905200 _____ ESBE butterfly valve series VBF100

TECHNICAL DATA

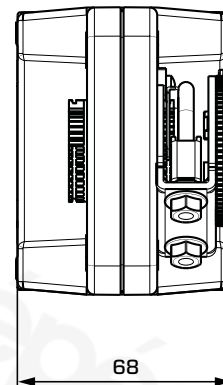
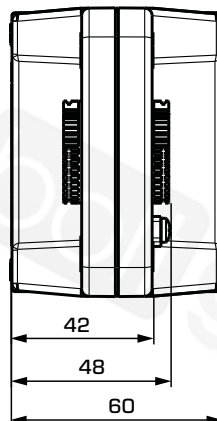
Ambient temperature: _____ max. +50°C
 _____ min. -30°C
 Ambient humidity: _____ 5...95% r.H. non-condensating
 Power supply: _____ 24V AC (50/60 Hz), 24V DC
 _____ 230V AC (50/60 Hz), 230V DC
 Nominal voltage range: _____ 19...29V AC/DC,
 _____ 85...265V AC/DC
 Power consumption, running: 24V _____ 5 W
 _____ 230V _____ 5,5 W
 Power consumption, standby: 24V _____ 2 W
 _____ 230V _____ 1,5 W
 Wiring sizing: 24V _____ 8,0 VA
 _____ 230V _____ 11,5 VA
 Enclosure rating: _____ IP54
 Protection class: 24V _____ III
 _____ 230V _____ II
 Torque: _____ 10Nm
 Running time, opening (2-point): _____ 75s/90°
 opening (proportional): _____ 150s/90°
 closing: _____ 20s/90°
 Cable length: _____ 1m
 Weight: _____ 1,8 kg

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

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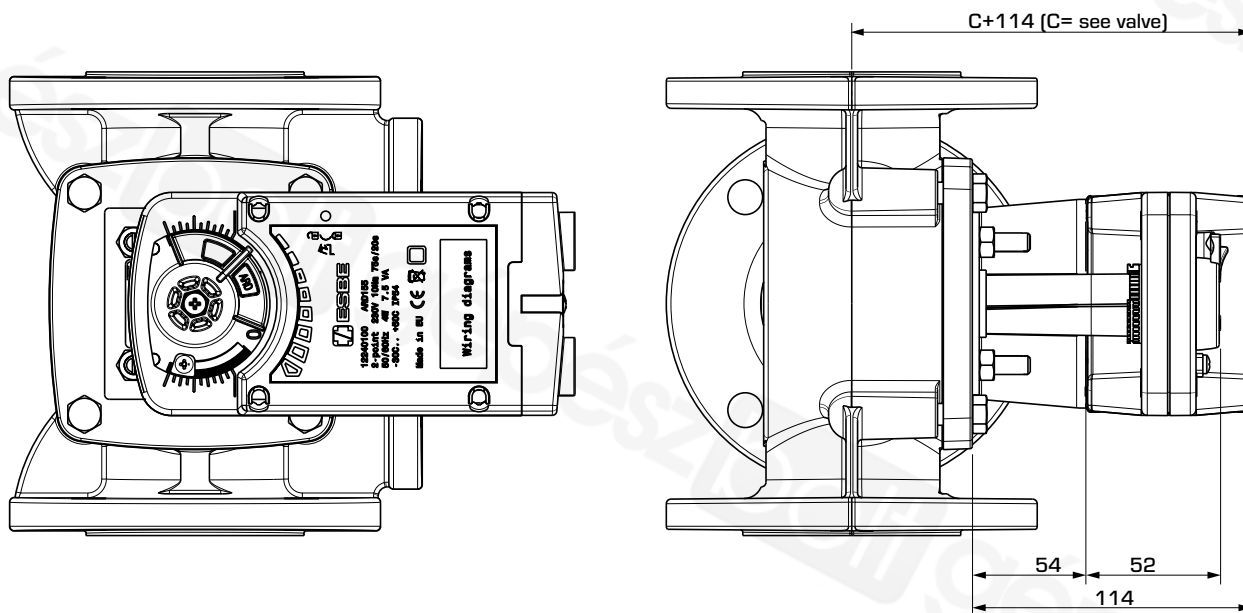


Damper assembly kit

SERIES ARD100

Art. No.	Reference	Voltage [V AC/DC]	Running time		Control signal	Torque [Nm]	Note
			opening 90° [s]	closing 90° [s]			
12240100	ARD155	230	75	20	2-point	10	
12241100	ARD157	24	75	20	2-point	10	
12260100	ARD169	24	150	20	Proportional*	10	

* Proportional = 0-10 V, 2-10 V, 0-20 mA, 4-20 mA

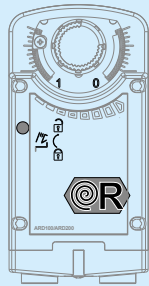
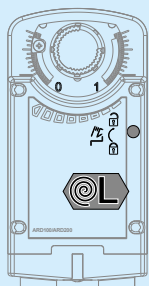


Installation dimensions for Actuator Series ARD100, with valve assembly kit

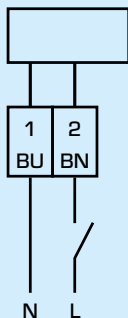
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SETTINGS

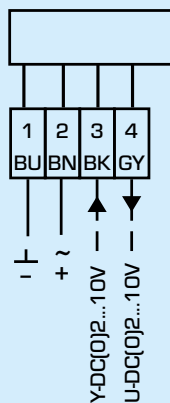
Direction of rotation



WIRING



ARD155/ARD157 (2-point)



ARD169 (Proportional)