ROTARY MOTORIZED VALVES

# ACTUATOR
# SERIES 90 3-POINT



3-point

*ESBE actuator Series 90 for operating ESBE mixing valves DN 15–100. This series is provided with adjustable cam discs to obtain an operating range 30°–180° or even 270°, depending on version, which makes the series very flexible.*

## OPERATION

The ESBE series 90 actuator is a compact actuator for operating rotary mixing valves. The actuator is reversible and is provided with limit switches which are actuated by cam discs. By adjusting the cam discs an operating range from 30° to 180° can be obtained. The actuator is provided with a disconnection for manual operation and has an indication on the front showing valve position.

The 3-point signal control actuator is available for 24 V AC, 50/60 Hz, or 230V, 50 Hz with different running times as shown in the table.

## TECHNICAL DATA

| | |
|---|---|
| Ambient temperature: | max. +55°C |
| | min. –15°C |
| Power supply: | 24 ± 10% V AC, 50 Hz |
| | 230 ± 10% V AC, 50 Hz |
| Power consumption: | Actuator 24 V AC, 2 VA |
| | Actuator 230 V AC, 5 VA |
| Enclosure rating: | IP 54 |
| Protection class: | II |
| Torque: | See table |
| Rating auxiliary switch: | 6(3) A 250 V AC |
| Weight: | 0,8 kg |

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

EAC

Wiring - Plese see the Installation instruction

## SUITABLE MIXING VALVES

- Series VRG100*
- Series VRG200*
- Series VRG300*
- Series VRH100*
- Series VRB100*
- Series VBF100, DN20-65*
- Series MG
- Series G
- Series F
- Series BIV
- Series T, TM
- Series H and HG

*Separate adaptor kit is required, see below

## ADAPTOR KITS

Required adaptor kits for easily fitting onto an ESBE rotary mixing valve is available in three different styles. Adaptor kit designed for ESBE mixing valve series MG, G, F, BIV, H, HG is supplied with each actuator. Adaptor kits for ESBE mixing valve series VRG, VRH, VRB and VBF can be ordered separately.

Art. No.

16051300 (= supplied with actuator)
___ ESBE valve series MG, G, F, BIV, T, TM, H, HG
16053300 _____ ESBE valve series VRG, VRH, VRB
13905100 _____ESBE valve series VBF100

Adaptor kits for other mixing valves and valves built-into boilers are available as follows:

Art. No.

16053600 _____ BRV, Meibes, Oventrop**, Watts
16053900 __ Honeywell Centra ZR, DR, DRG, DRU (DN15–50)
16051700 _____ Honeywell Centra Kompakt DRK/ZRK
16051300 _____ Sauter MH32…H42…
16052600 _____Schneider Electric/TAC-TRV
16052500 _____Siemens VBG31, VBI31, VBF21, VCI31***
16051400 _____TA–VTR, TA–STM
16051500 _____Viessmann (DN20–25)

## OPTIONS

Art. No.

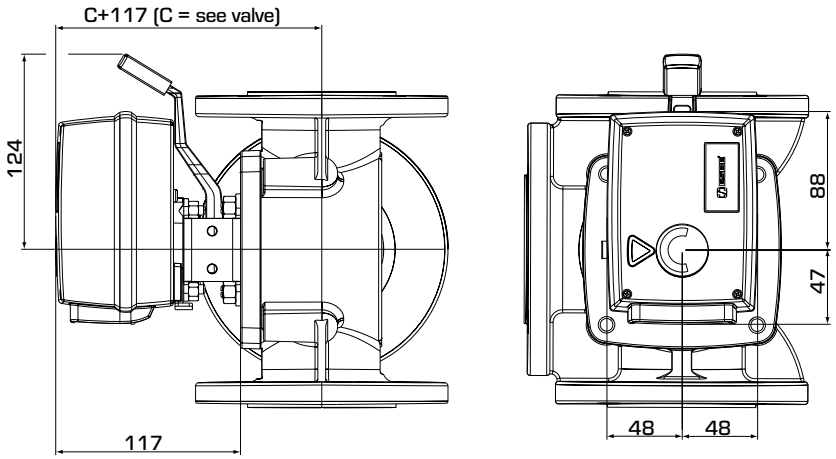
98100690 _____ Separate auxiliary switch, see table next page marked **

Notes: **For Oventrop mixing valves until ~2015 (old design of the housing). *** ≤ DN50


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ESBE

# ACTUATOR
## SERIES 90 3-POINT




Installation dimensions for
Actuator Series 90

### SERIES 90, 3-POINT 24 V AC

| Art. No. | Reference | Voltage [V AC] | Running time 90° [s] | Torque [Nm] | Control signal* | Remark |
|---|---|---|---|---|---|---|
| 12050200 | 91 | 24 | 15 | 5 | 3-point SPDT | Separate auxiliary switch as option** |
| 12050600 | 92 | 24 | 60 | 15 | 3-point SPDT | Separate auxiliary switch as option** |
| 12051100 | 92M | | | | | With premounted auxiliary switch |
| 12050700 | 92-2 | 24 | 120 | 15 | 3-point SPDT | Separate auxiliary switch as option** |
| 12051300 | 93 | 24 | 240 | 15 | 3-point SPDT | Separate auxiliary switch as option** |

### SERIES 90, 3-POINT 230 V AC

| Art. No. | Reference | Voltage [V AC] | Running time 90° [s] | Torque [Nm] | Control signal* | Remark |
|---|---|---|---|---|---|---|
| 12051700 | 94 | 230 | 15 | 5 | 3-point SPDT | Separate auxiliary switch as option** |
| 12051800 | 94M | | | | | With premounted auxiliary switch |
| 12051900 | 95 | 230 | 60 | 15 | 3-point SPDT | Separate auxiliary switch as option** |
| 12052200 | 95M | | | | | With premounted auxiliary switch |
| 12052000 | 95-2 | 230 | 120 | 15 | 3-point SPDT | Separate auxiliary switch as option** |
| 12052100 | 95-2M | | | | | With premounted auxiliary switch |
| 12052300 | 96 | 230 | 240 | 15 | 3-point SPDT | Separate auxiliary switch as option** |
| 12052400 | 96M | | | | | With premounted auxiliary switch |

* 3-point SPDT = Single Pole Double Throw




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