

# ACTUATOR SERIES 90 3-POINT

ESBE actuator Series 90 for operating ESBE mixing valves DN 15–150. 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.

## OPTIONS

Art. No.  
98100690 \_\_\_\_\_ Separate auxiliary switch,  
see table next page marked \*\*



1 To operate the valve manually, push the button and use the lever. The electric current is automatically disconnected as long as the button is in the lower position.

2 Turn the valve to the desired position.



3 To return to automatic operation, bring the lever to the position where it locks, and the button returns to the upper position. The current supply is now connected.



3-point

## SUITABLE MIXING VALVES

- Series VRG100\*
- Series MG
- Series VRG200\*
- Series G
- Series VRG300\*
- Series F
- Series VRH100\*
- Series BIV
- Series VRB100\*
- Series T, TM
- Series VBF100, DN20-65\*
- 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)

## 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

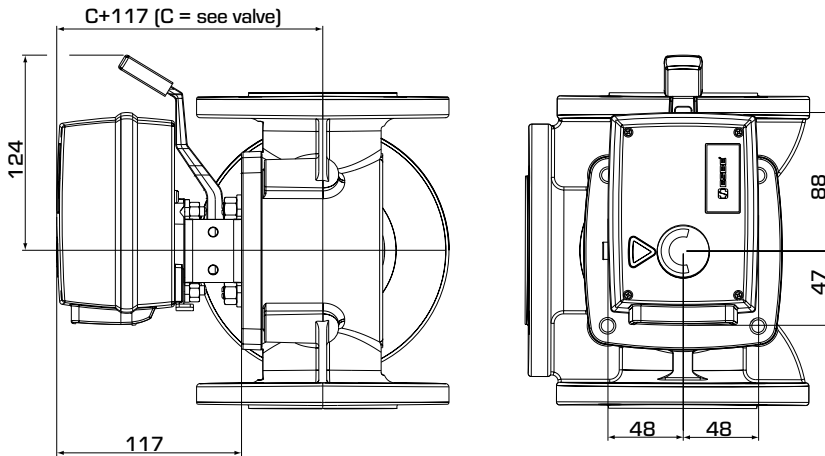
Torque: \_\_\_\_\_ See table

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

# ACTUATOR SERIES 90 3-POINT



Installation dimensions for Actuator Series 90 with ESBE series MG, G, F, T/TM, H/HG and BIV mixing valves

## 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		60	15	3-point SPDT	Separate auxiliary switch as option**
12051100	92M	24	120	15	3-point SPDT	With premounted auxiliary switch
12050700	92-2					Separate auxiliary switch as option**
12051300	93	24	240	15	3-point SPDT	Separate auxiliary switch as option**

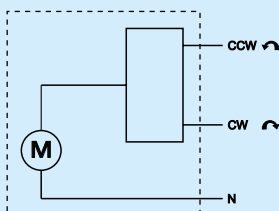
## SERIES 90, 3-POINT 230 V AC

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

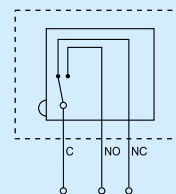
\* 3-point SPDT = Single Pole Double Throw

### WIRING

The actuator should be preceded by a multi-pole contact breaker in the fixed installation.



Actuator, Art. No.  
12050200, 12050600, 12050700,  
12051300, 12051700, 12051900,  
12052000, 12052300



Auxiliary switch

Actuator with premounted auxiliary switch, Art. No.  
1205 (11) 00, (18), (21), (22), (24)  
These actuators are supplied with one auxiliary switch. To set the switch position, remove the actuator cover and turn the cam sleeve to the desired position.