

# 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° which make 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 VAC, 50/60 Hz, or 230V, 50 Hz with different running times as shown in the table.



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.



## SUITABLE MIXING VALVES

The actuator is supplied complete with an adaptor kit for easily fitting onto an ESBE rotary mixing valve.

- Series VRG100\*
  - Series VRG200\*
  - Series VRB100\*
  - Series MG
  - Series G
  - Series F ≤ DN50
  - Series BIV
  - Series H and HG
- \*Separate adaptor kit is required, see below

## LINKAGE KITS

Required adaptor kits for easily fitting onto an ESBE rotary mixing valve is available in two 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 and VRB can be ordered separately.

Art. No.

1605 13 00 (= supplied with actuator)

\_\_\_\_\_ ESBE valve series MG, G, F, BIV, H, HG

1605 33 00 \_\_\_\_\_ ESBE valve series VRG, VRB

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

Art. No.

1605 16 00 \_\_\_\_\_ Centra ZR, DR, DRU

1605 17 00 \_\_\_\_\_ Centra Kompakt DRK/ZRK

1605 19 00 \_\_\_\_\_ CTC, linear movement

1605 13 00 \_\_\_\_\_ Sauter MH32...H42...

1605 25 00 \_\_\_\_\_ Siemens VBG31, VBI31, VBF21, VCI31

1605 14 00 \_\_\_\_\_ TA-VTR, TA-STM

1605 26 00 \_\_\_\_\_ TAC-TRV

1605 15 00 \_\_\_\_\_ Viessmann (all nominal diameters)

1605 18 00 \_\_\_\_\_ WITA

1605 20–24 00 Various adaptor kits for built-in mixing valves

## OPTIONS

Separate auxiliary switch, see table next page marked \*\*

\_\_\_\_\_ Art. No. 9810 06 90

## TECHNICAL DATA

Ambient temperature: \_\_\_\_\_ max. +55°C

\_\_\_\_\_ min. -15°C

Power consumption: \_\_\_\_\_ Actuator 24 VAC, 2 VA

\_\_\_\_\_ Actuator 230 VAC, 5 VA

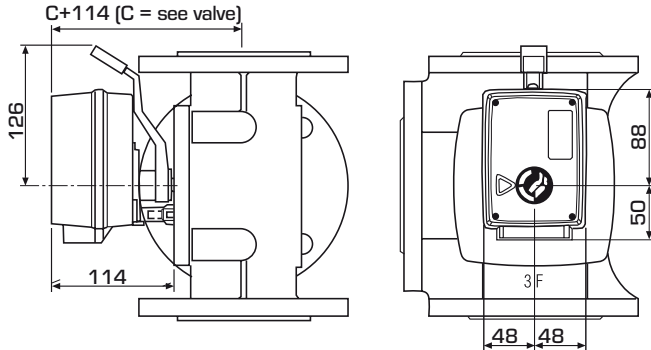
Enclosure rating: \_\_\_\_\_ IP 54

Protection class: \_\_\_\_\_ II

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

Weight: \_\_\_\_\_ 0.8 kg

# 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

## ACTUATOR SERIES 90, 3-POINT 24 VAC

Art. No.	Reference	Voltage [VAC]	Running time 90° [s]	Torque [Nm]	Control signal*	Remark
1205 02 00	91	24	15	5	3-point SPDT	Separate auxiliary switch as option**
1205 06 00	92	24	60	15	3-point SPDT	Separate auxiliary switch as option**
1205 07 00	92-2	24	120	15	3-point SPDT	Separate auxiliary switch as option**
1205 13 00	93	24	240	15	3-point SPDT	Separate auxiliary switch as option**
1205 04 00	91M	24	15	5	3-point SPDT	With premounted auxiliary switch
1205 11 00	92M	24	60	15	3-point SPDT	With premounted auxiliary switch
1205 09 00	92-2M	24	120	15	3-point SPDT	With premounted auxiliary switch
1205 15 00	93M	24	240	15	3-point SPDT	With premounted auxiliary switch

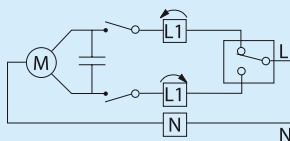
## ACTUATOR SERIES 90, 3-POINT 230 VAC

Art. No.	Reference	Voltage [VAC]	Running time 90° [s]	Torque [Nm]	Control signal*	Remark
1205 17 00	94	230	15	5	3-point SPDT	Separate auxiliary switch as option**
1205 19 00	95	230	60	15	3-point SPDT	Separate auxiliary switch as option**
1205 20 00	95-2	230	120	15	3-point SPDT	Separate auxiliary switch as option**
1205 23 00	96	230	240	15	3-point SPDT	Separate auxiliary switch as option**
1205 18 00	94M	230	15	5	3-point SPDT	With premounted auxiliary switch
1205 22 00	95M	230	60	15	3-point SPDT	With premounted auxiliary switch
1205 21 00	95-2M	230	120	15	3-point SPDT	With premounted auxiliary switch
1205 24 00	96M	230	240	15	3-point SPDT	With premounted auxiliary switch

\* 3-point SPDT = Single Pole Double Throw

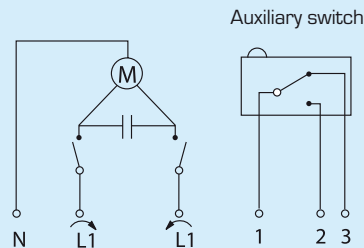
### WIRING

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



#### Actuator, Art. No.

1205 02 00, 1205 06 00,  
1205 07 00, 1205 13 00,  
1205 17 00, 1205 19 00,  
1205 20 00, 1205 23 00



#### Actuator with premounted auxiliary switch, Art. No.

1205 (04) 00, (09), (11), (15), (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.