# **ACTUATOR SERIES 90 PROPORTIONAL**

ESBE actuator Series 90 for operating ESBE mixing valves DN 15-150. This series is provided with adjustable cam discs to obtain adjustable operating range 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. The actuator is provided with a disconnection for manual operation and has an indication on the front showing valve position.

Supply voltage 24 V AC/DC. The actuator factory setting is 0-10V, 90°, 120s. Any adjustments are made by removal of the front cover.

#### **SUITABLE MIXING VALVES**

- Series VRG100\*
- Series VRG200\*
- Series VRG300\*
- Series VRH100\*
- Series VRB100\* Series VBF100, DN20-65\*
- Series F
- Series T
- Series HG
- \*Separate adaptor kit is required,

#### **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 MH32H42
16052600_	
16052500_	Siemens VBG31, VBI31, VBF21, VCI31***
16051400_	TA-VTR, TA-STM
16051500_	Viessmann (DN20-25)

#### **OPTIONS**

Art. No. 98100690 \_ Separate auxiliary switch

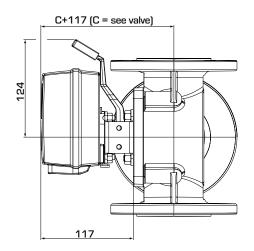
TECHNICAL DATA	
Ambient temperature:	max. +55°C
	min15°C
Power supply:	24 ± 10% V AC/ DC
Power consumption:	5 VA
Enclosure rating:	IP 54
Protection class:	II
Torque:	See table
Weight:	O,8 kg
C E LVD 2014/35/EU EMC 2014/30/EU RoHS3 2015/863/EU	UK SI 2016 No. 1101 SI 2016 No. 1091 CA SI 2012 No. 3032
WIRING Please see the Installation Instructio	n.

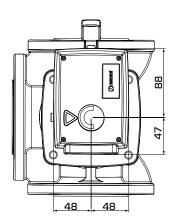
Notes: \*\*For Oventrop mixing valves until ~2015 (old design of the housing). \*\*\* ≤ DN50



# **ACTUATOR**

## **SERIES 90 PROPORTIONAL**





Installation dimensions for Actuator Series 90

## SERIES 90, PROPORTIONAL 24 V AC/DC

Art. No.	Reference	Voltage [V]	Running time [s]	Torque [Nm]	Control signal	Remark
12550500	93P	24	60 — 390 <sup>1), 2)</sup>	15	0-10 V, 2-10 V, 0-20 mA, 4-20 mA <sup>1)</sup>	Operating range 90/180/355° 1)

Note 1) Factory settings are:  $90^{\circ}$  operating range, 0 – 10 V control signal and 120s running time.

<sup>2)</sup> The running time relates to set turning angel. More information can be found in the installation instruction.