

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 except for 1205 33 00 which has an operating range of 270°. 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.

OPTIONS

Separate auxiliary switch, see table next page marked **
Art. No. 9810 06 90



3-point

SUITABLE MIXING VALVES

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

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

*Separate adaptor kit is required, see below

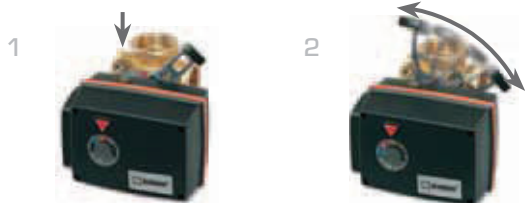
LINKAGE KITS

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, T, TM, H, HG
 1605 34 00 (= supplied with Art. No. 1205 33 00)
 _____ ESBE valve series MG, G, F, BIV, T, TM, H, HG
 1605 33 00 _____ ESBE valve series VRG, VRB

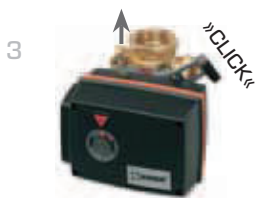
Adaptor kits for other mixing valves and valves built-into boilers are available as follows:

- Art. No.
 1605 35 00 _____ BRV
 1605 16 00 _____ Centra ZR, DR, DRG, DRU (≤DN50)
 1605 17 00 _____ Centra Kompakt DRK/ZRK
 1605 19 00 _____ CTC, linear movement
 1605 36 00 _____ BRV, Meibes, Oventrop, Watts
 1605 13 00 _____ Sauter MH32...H42...
 1605 25 00 _____ Siemens VBG31, VBI31, VBF21, VCI31
 1605 14 00 _____ TA-VTR, TA-STM
 1605 26 00 _____ Schneider Electric/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



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.



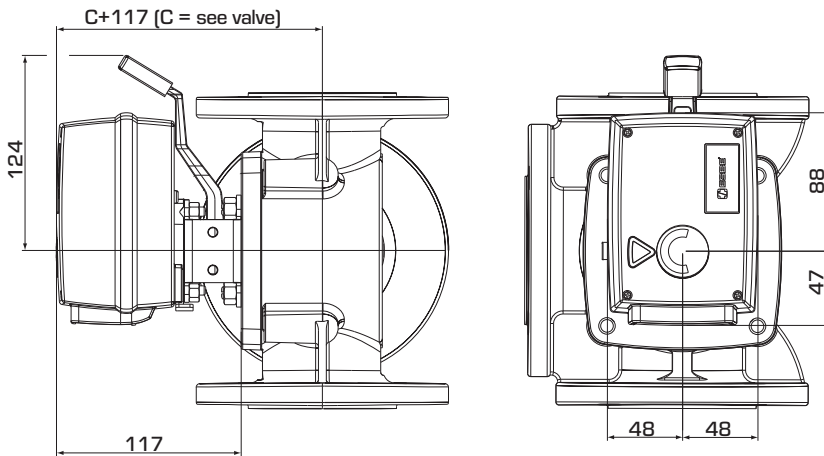
3 To return to automatic operation, bring the lever to the position where it locks, and the button returns to the upper position. The current supply is now connected.

TECHNICAL DATA

Ambient temperature: _____ max. +55°C
 _____ min. -15°C
 Power supply: _____ 24 ± 10% VAC, 50 Hz
 _____ 230 ± 10% VAC, 50 Hz
 Power consumption: _____ Actuator 24 VAC, 2 VA
 _____ Actuator 230 VAC, 5 VA
 Enclosure rating: _____ IP 54
 Protection class: _____ II
 Torque: _____ See table
 Rating auxiliary switch: _____ 6(3)A 250 VAC
 Weight: _____ 0.8 kg

CE LVD 2006/95/EC
 EMC 2004/108/EC
 RoHS 2002/95/EC

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
1205 02 00	91	24	15	5	3-point SPDT	Separate auxiliary switch as option **
1205 04 00	91M					With premounted auxiliary switch
1205 06 00	92	24	60	15	3-point SPDT	Separate auxiliary switch as option **
1205 11 00	92M					With premounted auxiliary switch
1205 07 00	92-2	24	120	15	3-point SPDT	Separate auxiliary switch as option **
1205 09 00	92-2M					With premounted auxiliary switch
1205 13 00	93	24	240	15	3-point SPDT	Separate auxiliary switch as option **
1205 15 00	93M					With premounted auxiliary switch

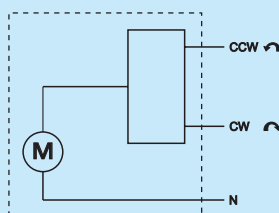
SERIES 90, 3-POINT 230 V AC

Art. No.	Reference	Voltage [V AC]	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 18 00	94M					With premounted auxiliary switch
1205 19 00	95	230	60	15	3-point SPDT	Separate auxiliary switch as option **
1205 22 00	95M					With premounted auxiliary switch
1205 20 00	95-2	230	120	15	3-point SPDT	Separate auxiliary switch as option **
1205 21 00	95-2M					With premounted auxiliary switch
1205 33 00	95-270M	230	50***	5	3-point SPDT	With premounted auxiliary switch Operating range 270°
1205 23 00	96	230	240	15	3-point SPDT	Separate auxiliary switch as option **
1205 24 00	96M					With premounted auxiliary switch

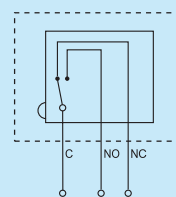
* 3-point SPDT = Single Pole Double Throw *** Running time 270° - 150s (preset)

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



Auxiliary switch

Actuator with premounted auxiliary switch, Art. No.
1205 (04) 00, (09), (11), (15), (18), (21), (22), (24), (33)
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.

ACTUATOR SERIES 90 2-POINT

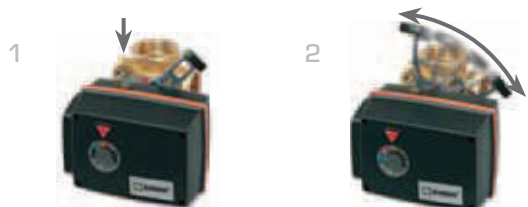
ESBE actuator Series 90 for operating ESBE mixing valves DN 15–150. This series is provided with adjustable cam discs to obtain an operating range 30°–180° which make the series very flexible.

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.

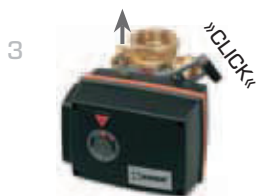
The 2-point signal control actuator is available for 230 V, 50 Hz with different running times as shown in the table.

An 2-point signal control actuator with built-in relay should be selected when the actuator is to be controlled by an on/off-thermostat.



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.



2-point

SUITABLE MIXING VALVES

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

- Series VRG100*
- Series G
- Series VRG200*
- Series F
- Series VRG300*
- Series BIV
- Series VRB100*
- Series T, TM
- Series MG
- 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, T, TM, 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 35 00 _____ BRV

1605 16 00 _____ Centra ZR, DR, DRG, DRU (≤DN50)

1605 17 00 _____ Centra Kompakt DRK/ZRK

1605 19 00 _____ CTC, linear movement

1605 36 00 _____ BRV, Meibes, Oventrop, Watts

1605 13 00 _____ Sauter MH32...H42...

1605 25 00 _____ Siemens VBG31, VBI31, VBF21, VCI31

1605 14 00 _____ TA-VTR, TA-STM

1605 26 00 _____ Schneider Electric/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

TECHNICAL DATA

Ambient temperature: _____ max. +55°C

_____ min. -15°C

Power supply: _____ 230 ± 10% VAC, 50 Hz

Power consumption: _____ 5 VA

Enclosure rating: _____ IP 54

Protection class: _____ II

Torque: _____ See table

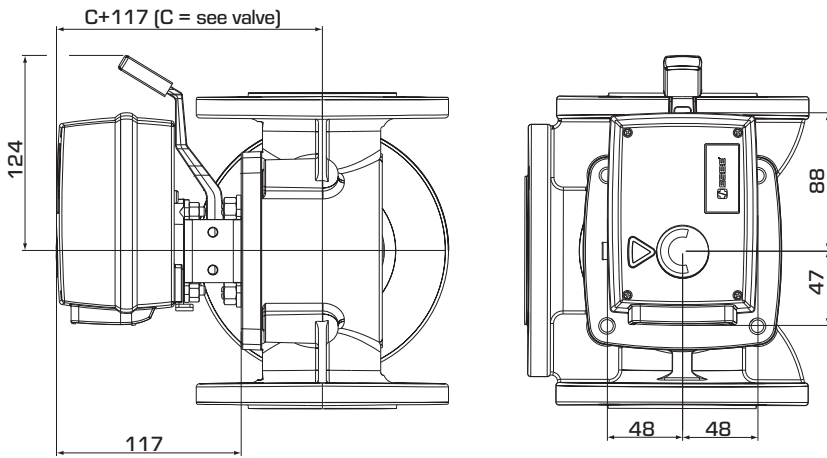
Rating auxiliary switch: _____ 6(3)A 250 VAC

Weight: _____ 0.8 kg

CE LVD 2006/95/EC
EMC 2004/108/EC
RoHS 2002/95/EC

ACTUATOR

SERIES 90 2-POINT



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

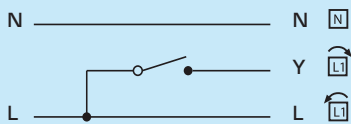
SERIES 90, 2-POINT 230 V AC

Art. No.	Reference	Voltage [V AC]	Running time 90° [s]	Torque [Nm]	Control signal*	Remark
1205 25 00	97	230	15	5	2-point SPST	With built-in relay
1205 26 00	98		60	15		

*2-point SPST = Single Pole Single Throw

WIRING

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



Actuator with built-in relay, Art. No. 1205 25 00, 1205 26 00

The direction of rotation is changed by a contact located under the cover.

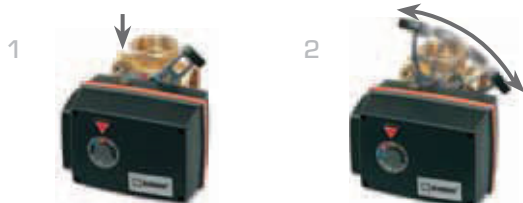
ACTUATOR SERIES 90 PROPORTIONAL

ESBE actuator Series 90 for operating ESBE mixing valves DN 15–150. This series is provided with adjustable cam discs to obtain an operating range 30°–355° which make the series very flexible.

OPERATION

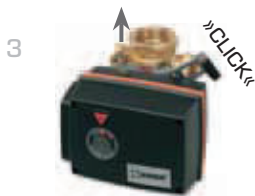
The ESBE series 90 actuator is a compact actuator for operating rotary mixing valves. The actuator is reversible and is provided with limit switches which are actuated by cam discs. For 1255 01 00 to 1255 03 00 the operating range is 90° alt. 180°, and for 1255 04 00 the operating range is 355°. The actuator is provided with a disconnection for manual operation and has an indication on the front showing valve position.

The actuator is also available in step motor driven versions for regulation with different proportional signals and running times. Supply voltage 24 V AC/DC. The actuators are factory set at 0–10 V and 15 s for 1255 03 00, 60 s for 1255 01 00 resp. 120 s for 1255 02 00. Any adjustments are made by removal of front cover.



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.



Proportional

SUITABLE MIXING VALVES

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

- Series VRG100*
- Series G
- Series VRG200*
- Series F
- Series VRG300*
- Series BIV
- Series VRB100*
- Series T, TM
- Series MG
- 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, T, TM, 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 35 00 _____ BRV

1605 16 00 _____ Centra ZR, DR, DRG, DRU (≤DN50)

1605 17 00 _____ Centra Kompakt DRK/ZRK

1605 19 00 _____ CTC, linear movement

1605 36 00 _____ BRV, Meibes, Oventrop, Watts

1605 13 00 _____ Sauter MH32...H42...

1605 25 00 _____ Siemens VBG31, VBI31, VBF21, VCI31

1605 14 00 _____ TA-VTR, TA-STM

1605 26 00 _____ Schneider Electric/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

TECHNICAL DATA

Ambient temperature: _____ max. +55°C

_____ min. –15°C

Power supply: _____ 24 ± 10% V AC/DC, 50/60 Hz

Power consumption: _____ 5 VA

Enclosure rating: _____ IP 54

Protection class: _____ II

Torque: _____ See table

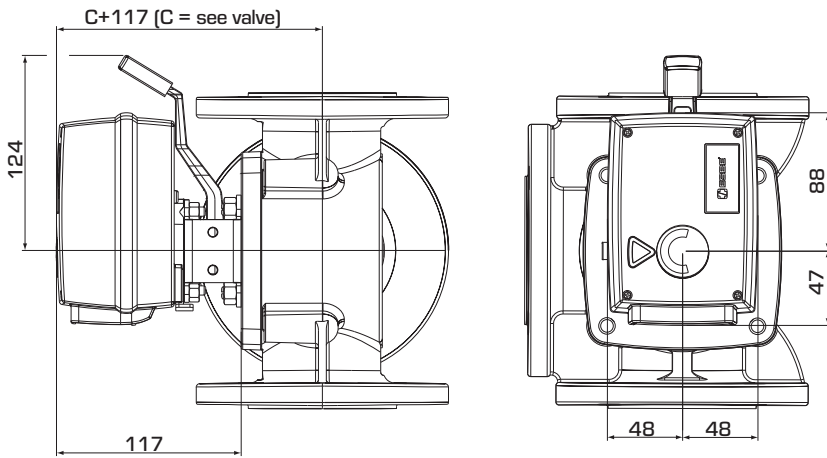
Rating auxiliary switch: _____ 6(3)A 250 VAC

Weight: _____ 0.8 kg

CE LVD 2006/95/EC
EMC 2004/108/EC
RoHS 2002/95/EC

ACTUATOR

SERIES 90 PROPORTIONAL



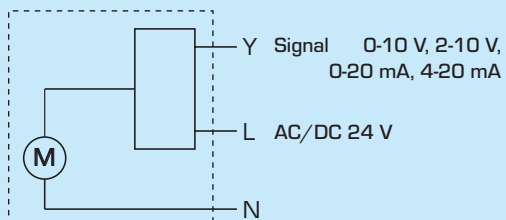
Installation dimensions for Actuator Series 90 with ESBE series MG, G, F, T/TM, H/HG and BIV mixing valves

SERIES 90, PROPORTIONAL 24 V AC/DC

Art. No.	Reference	Voltage [V]	Running time [s]	Torque [Nm]	Control signal	Remark
1255 03 00	91P	24	15/30/45	4	0-10 V, 2-10 V, 0-20 mA, 4-20 mA	Operating range 90°
1255 01 00	92P		60/90/120	15		Operating range 90°
1255 02 00	92P2		120/180/240	15		Operating range 180°
1255 04 00	92P4		120/240/360	15		Operating range 355°

WIRING

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



Actuator, Art. No.
1255 01 00, 1255 02 00,
1255 03 00, 1255 04 00