

## CONTROLLERS

# CONTROLLER SERIES CRC120

ESBE series CRC120 is a combined actuator and a weather compensating controller. Recommended for valves of DN65 up to DN100, especially suited for ESBE 3-way valves series F.

### OPERATION

The ESBE series CRC120 is designed to provide a high level of comfort thanks to the possibility to set a perfect characteristic heating curve and at the same time provide energy savings for the house owner. The controller consist of three parts:

- controller unit, with display included for easy mounting on wall etc, well suited for applications where the actual valve and actuator is located in a hard-to-reach position.
- actuator unit, to be mounted to the mixing valve controlling the heat supply.
- outdoor sensor, to be mounted on the north side of the building.

The regulation is based on outdoor sensor feedback and an adjustable characteristic heating curve. An offset / parallel adjustment of the characteristic heating curve may be activated by an external signal for example night settings. For applications with well insulated building and quick heating systems such as radiator circuit a temperature filter can be activated to delay an outdoor temperature change to avoid an imbalance between estimated and actual heating demand.

### MOUNTING

Power supply by 230 V AC adapter (complete with transformer, cable and wall socket plug).

Flow pipe sensor comes with 1,5m cable included (longer cable available as accessory). The sensor must be carefully insulated from ambient temperature.

Outdoor sensor with 20 m cable. The sensor shall be mounted on the north side of the building under the eaves in order to protect the sensor from direct sunlight and rain.

The actuator unit is recommended for mounting on ESBE valves series F ≤ DN100.

### OPTIONAL EQUIPMENT

Art. No.  
17053100 \_\_\_\_\_ CRA911 Flow pipe sensor, 5m cable  
98100690 \_\_\_\_\_ Auxiliary switch Series 90



CRC121/CRC125  
230 V AC

### SUITABLE MIXING VALVES

- Series F

### ADAPTOR 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 controller. Adaptor kits for ESBE mixing valve series VRG, VRH, VRB and VBF can be ordered separately.

Art. No.

16051300 (= supplied with controller)

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

16053300 \_\_\_\_\_ ESBE valve series VRG, VRH, VRB

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. -5°C

Sensors: \_\_\_\_\_ Temperature sensor type NTC

Temperature range,

Flow pipe sensor: \_\_\_\_\_ +5 to +95°C

Outdoor sensor: \_\_\_\_\_ -50 to +70°C

Enclosure rating - Actuator unit: \_\_\_\_\_ IP54

- Control box: \_\_\_\_\_ IP54

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

Power supply: \_\_\_\_\_ 230 ± 10% V AC, 50 Hz

Power consumption - 230 V AC: \_\_\_\_\_ 10 VA

Torque: \_\_\_\_\_ 15 Nm

Running time at max. speed: \_\_\_\_\_ 120s

ErP Temperature controls class: \_\_\_\_\_ III

Energy efficiency contribution: \_\_\_\_\_ 1,5%



LVD 2014/35/EU  
EMC 2014/30/EU  
RoHS3 2015/863/EU



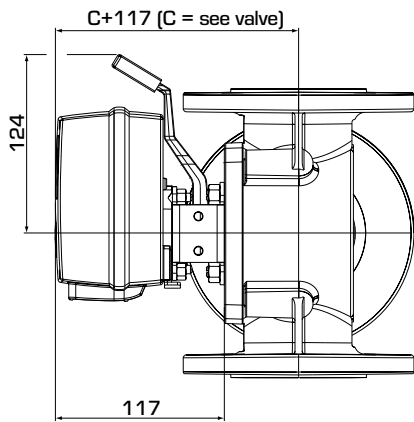
SI 2016 No. 1101  
SI 2016 No. 1091  
SI 2012 No. 3032

Wiring - Please see the Installation instruction

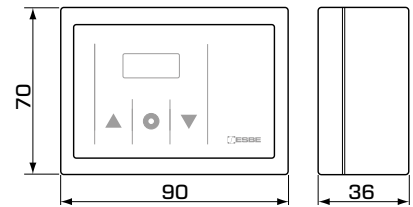
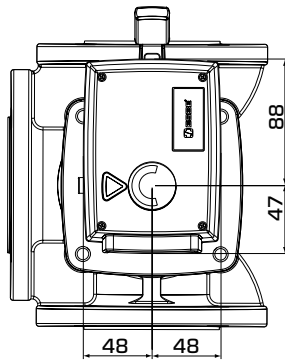
Notes: \*\*For Oventrop mixing valves until ~2015 (old design of the housing). \*\*\* ≤ DN50

CONTROLLERS

# CONTROLLER SERIES CRC120



Installation dimensions for Controller Series CRC120



Installation dimensions for Control box

## SERIES CRC120

Art. No.	Reference	Voltage [V AC]	Torque [Nm]	Weight [kg]	Note	Replaces
12842100	CRC121	230	15	1,8		
12842500	CRC125			1,8	Transformer with UK plug	

## INSTALLATION EXAMPLE

