

S11 CT

FIRST CONTROLLERS FOR CONSTANT TEMPERATURE REGULATION

for 3-way mixing valves



EURONORM AXLE SYSTEM

ISO 5211



FIRST S11-CT controller for constant temperature regulation is designed for operating 3-way valves (DN 15 - DN 50).

- Two types of controllers are available: for 230 VAC with Europlug connection and with adapter 230 VAC / 24 VDC.
- The FIRST S11-CT controller have defined direction of rotation (90° rotating angle).
- Controllers have LED temperature display for left or right valve montage position and knob for adjusting desired temperature.
- Controllers have DIP switches for setting different functions of the controller.
- Led indicator for opening-closing valve.

OPERATION

S11-CT is an controller for constant temperature regulation with sensor and adjustable temperature setting. It is designed for operating 3-way rotary mixing valves. FIRST S11-CT controllers allow high regulating accuracy and easy installation with different mounting systems.

Controller are available in 230 VAC with Europlug cable, 230 VAC with adapter or 24 VDC without adapter and are supplied with 1,7 m attached connection cable. Controller can be manually operated with handle and button on the cover.

S11-CT controller are recommended for maintaining a constant temperature in boiler heating circuit (protection against condensation), use in under floor heating applications, industrial processes, heat accumulators and in domestic hot water systems or swimming pools (individual systems, SPA, public swimming pools). Controller S11-CT are recommended for mixing applications with FMV 130E, FMV 140E and FMV H-151E valves.

MAINTENANCE

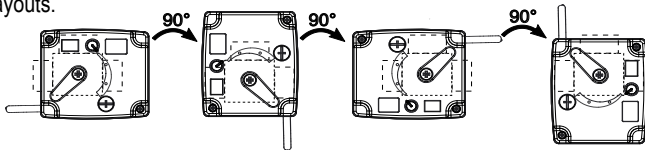
Controller requires no maintenance. The installation of suitable strainer is recommended.

TECHNICAL DATA: CONTROLLER

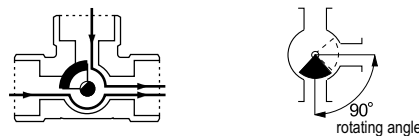
Supply voltage:	230 VAC 50/60 Hz with Europlug cable 230 VAC 50/60 Hz with adapter 24 VDC, 300 mA 24 VDC (without adapter)
Rotation time:	75s/90°
Power consumption:	for 230 VAC: 5 VA (2 W) operation, 2,5 VA (0,7 W) stand by for 24 VDC: 7 VA (2,5 W) operation, 2,5 VA (0,8 W) stand by
Max. Torque:	5 Nm / 10 Nm
Protection class:	II
Enclosure rating:	IP40 (cable connection)
Connection:	cable 1,7 m with Europlug connection fixed adapter with cable 1,7 m
Direction of rotation:	defined 90° angle
Manual operation:	handle and push button
Position indicator:	handle with position indicator
Ambient temperature:	0°C..+55°C
Storage temperature:	-10°C..+70°C
Humidity:	0%..80% R.H. (non condensed)
Sensor type:	PT1000, 1 m Ø 6x25 mm
Temperature ranges:	(0-95°C, 25-50°C)
Indication:	LED display with +/-0,5°C resol.
Led display:	for left and right valve position

INSTALLATION POSITION

Actuator can be rotated on the mixing valve body to fit different installation layouts.



MIXING APPLICATION



DIP SWITCHES FUNCTIONS

For setting different functions of the controller.

	DIP 1	Direction of rotation + calibration
	DIP 2	Different temp. areas according to your application
	DIP 3	Led display rotation
	DIP 4	Reaction factor x1/x2

SUITABLE VALVES

FMV 130E



FMV 140E



FMV H-151E



In accordance with PED, LVD, RoHS2, EMC



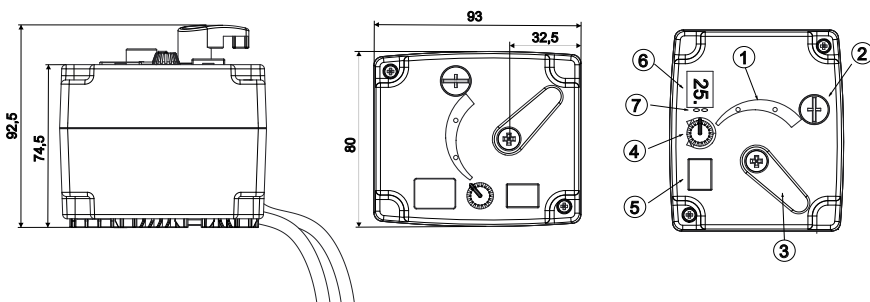
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S11-CT



Description of the front panel of the controller

1. Position indicator: indicator can be set according to the mixing valve assembly
2. Button for manual / auto control
3. Handle for manually controlling the controller, which also serves for the indication position of the valve
4. Button for adjusting the required temperature
5. Accessible place for DIP switches for setting the parameters
6. LED screen for displaying current/set temperature
7. LED indication:
 - Between calibration:
 - Red constant flash interval: opening
 - Blue constant flash interval: closing
 - Operation:
 - Red on: opening
 - Blue on: closing
 - End position:
 - Red flash: open end position of the valve
 - Blue flash: close end position of the valve

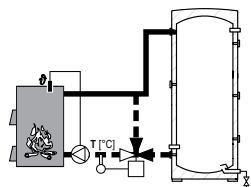
S11-CT

Code	Type	Voltage [V]	Rotation time	Connection	Max. torque [Nm]	Weight [kg]	Price (€)
12906	S11 CT-K 24VDC 5Nm	Adapter 230 VAC / 24 VDC	75s/90°	Cable	5 Nm	0,45 kg	
12950	S11 CT-K 230VAC 5Nm	230 VAC 50 / 60 Hz	75s/90°	Cable	5 Nm	0,46 kg	
12949	S11 CT-K 24VDC 10Nm	Adapter 230 VAC / 24 VDC	75s/90°	Cable	10 Nm	0,48 kg	
12951	S11 CT-K 230VAC 10Nm	230 VAC 50 / 60 Hz	75s/90°	Cable	10 Nm	0,49 kg	

Installation examples

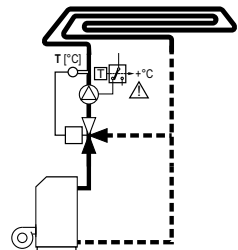
S11-CT controller with FMV 130E valves.

Example 1:



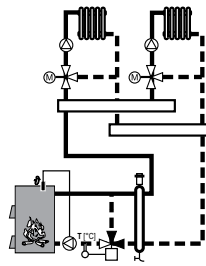
Maintains a constant temperature (protection) of the return flow of water boilers using solid or liquid fuels in combination with a hopper.

Example 2:



Maintains a constant temperature of heating water.

Example 3:



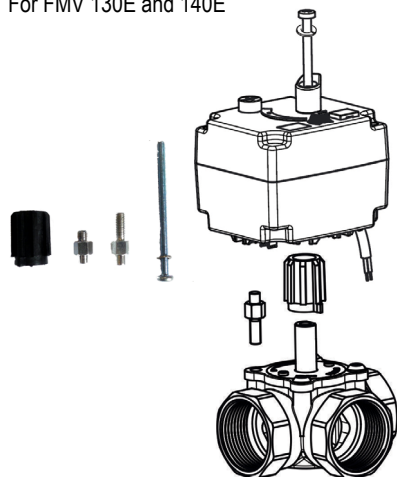
Maintains a constant temperature of the boiler (protection against condensation) and direct connection to the heating system.

Features and options

- **Power supply:**
 - Adapter 230 VAC 50/60 Hz / 24 VDC
 - Europlug 230 VAC 50/60 Hz
- **Connection:** cable 1,7 m (Europlug cable and adapter)
- **Sensor type:** PT1000, cable length 1 m, sensor length 25 mm, 6 mm diameter,
- **Sensor mounting kit:** code 58105
- **Mounting kits** for assembling on mixing valves of other manufacturers

Adapter kits

Enclosed mounting kit, code 58104:
For FMV 130E and 140E



Optional mounting kit, code 58024:
FIRST (ROTOMIX, ROTOMIX G),
ESBE (VRG, VRB), LKACASO (TERM-
OMIX), BARBERI, FEROTERM, PAW,
EURONORM, ESBE, IMP, DANFOSS,
BESSER, SELTRON, LOVATO, TUX-
HORN, STRAWA, CIMBERIO



Mounting kits for sensor, code 58105

Figure: A - mounting as contact sensor

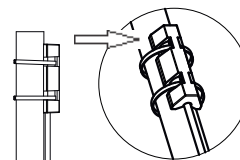


Figure: B - mounting as immersion sensor

