

# UNI TEMP

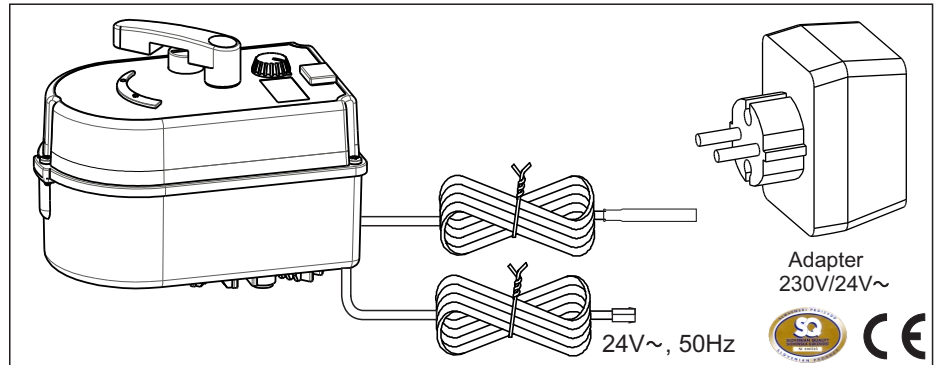
# FIRST®

UNI TEMP is a constant temperature controller. It is designed for mounting on mixing valve.

It is also equipped with mounting kit for assembly on mixing valves of other manufacturers. Controller has a fixed angle rotation of 90° and possibility of manual control.

With DIP switches inside actuator is possible to set the following parameters:

- Direction of rotation (direct CW / inverse CCW)
- Different temperature ranges depending on the application
- Reaction factor x1/x10



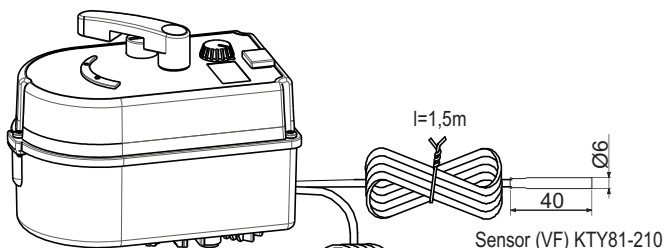
It is intended for:

- maintaining a constant temperature in boiler heating circuit (protection against condensation),
- use in under floor heating applications, industrial processes, heat accumulators,
- use in domestic hot water systems or swimming pools (individual systems, SPA, public swimming pools).

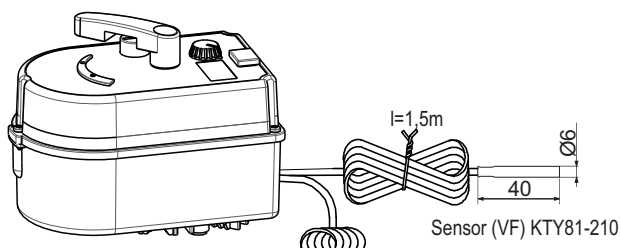
Technical data		
Electrical data	Supply voltage	With adapter: 230VAC, 50Hz Without adapter: 24VAC, 50Hz, ± 10% (Cut the cable connector)
	Power consumption	5VA
	Connection cable	2x0,75mm <sup>2</sup> , length 2m
	Sensor type	KTY 81-210 PVC (cable length 1.5m), insulation: -30°C to 105°C (adapter set enclosed)
	Functional data	Torque
Rotation time		73s/90°
Manual override		Manual or permanent with pushbutton (for maintenance purposes)
Position indication		Handle position on controller cover
Recommended mounting position		All positions except upside down
DIP switch settings		1. Direction of rotation (direct CW / inverse CCW) 2. Different temperature ranges depending on the application (0°C..100°C, 60°C..85°, 20°C..70°C, 25°C..45°C) 3. Reaction factor x1/x10
Safety		Protection class
	Degree of protection	IP44 (IEC 60529 (2001-02))
	Ambient temperature	0..+55°C
	Media temperature	According to valve's specifications
	Storage temperature	-20°...+80°C
	Maintenance	Maintenance-free
	Weight	Approx. 0,7kg (without valve)
Enclosed mounting kit	FIRŠT (ROTOMIX, ROTOMIX G), ESBE (VRG, VRB), ACASO (TERMOMIX), BARBERI, FEROTERM, PAW, EURONORM, ESBE, IMP, DANFOSS, BESSER, SELTRON, LOVATO, TUXHORN, STRAWA, CIMBERIO	

Electrical installation:

UNI TEMP 24VAC



UNI TEMP 230VAC



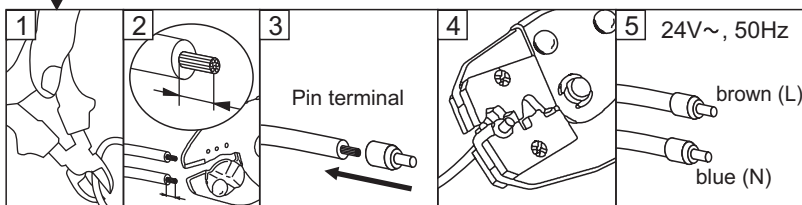
Cut the cable connector



24V~, 50Hz

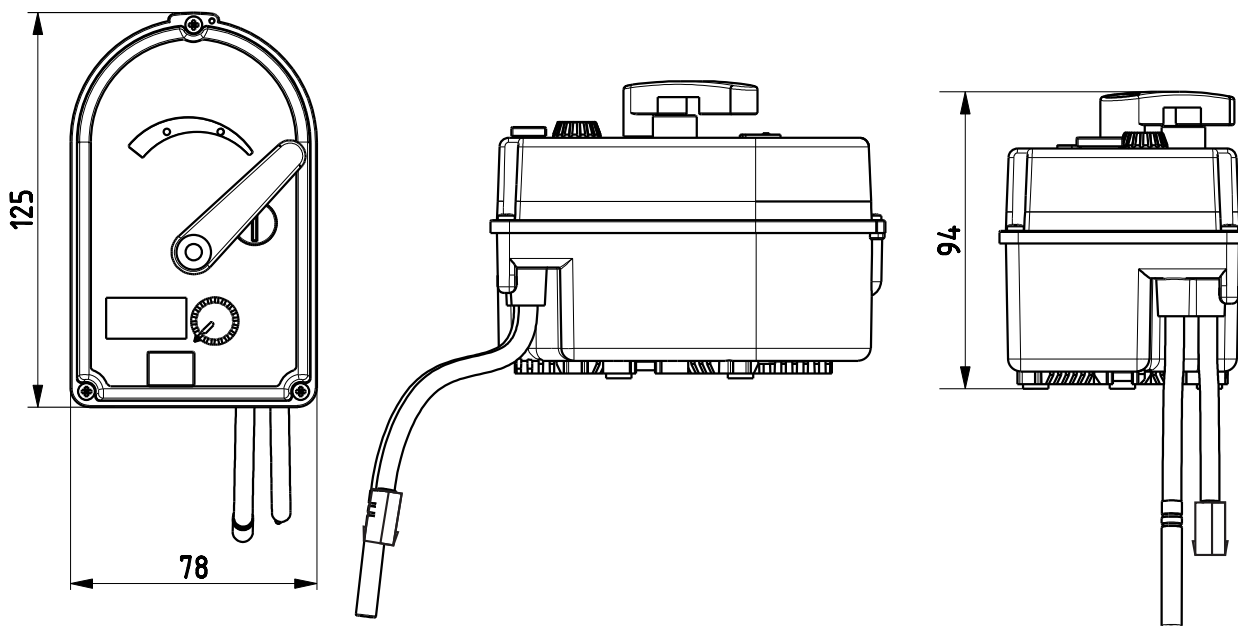


230VAC, 50Hz



The equipment must be connected to the electric power supply in a manner which coplies with the legal equirements applicable at the place of use.

Dimensions:



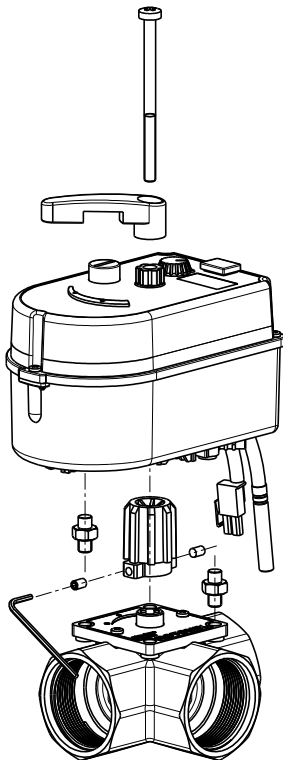
Order information:

Code	Article	Voltage	Time	Torque
21135	UNI TEMP 24VAC	24VAC, 50Hz	73s/90°	max. 15Nm
21136	UNI TEMP 230VAC	230VAC, 50Hz	73s/90°	max. 15Nm

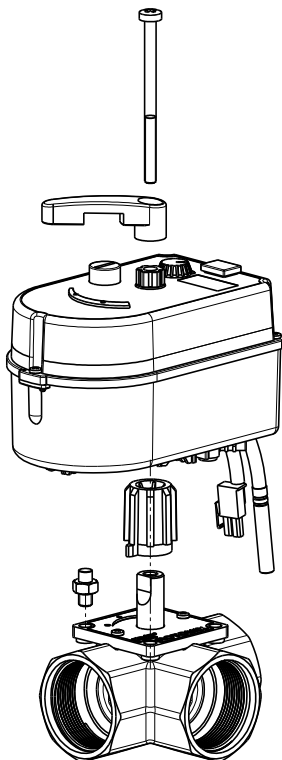
Enclosed mounting kit for following mixing valves: FIRŠT (ROTOMIX, ROTOMIX G), ESBE (VRG, VRB), ACASO (TERMOMIX), BARBERI, FEROTERM, PAW, EURONORM, ESBE, IMP, DANFOSS, BESSER, SELTRON, LOVATO, TUXHORN, STRAWA, CIMBERIO.

Mounting on the valve:

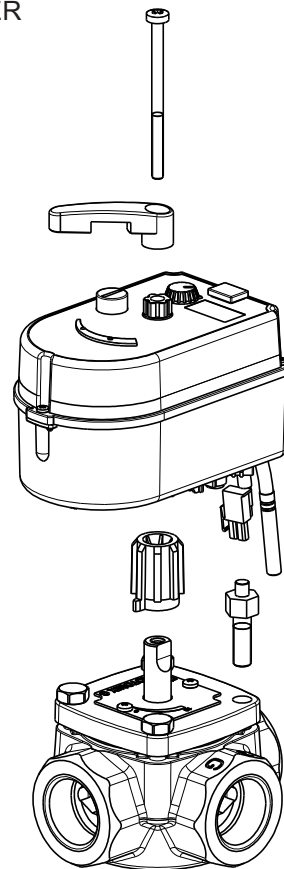
ROTOMIX F3  
ROTOMIX F4



ROTOMIX F3U  
ROTOMIX F4U

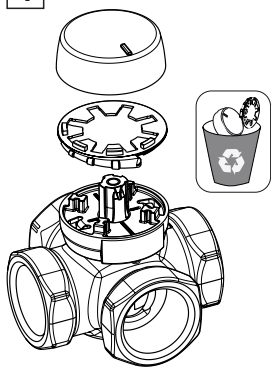


FIRŠT (ROTOMIX G), ESBE, ACASO (TERMOMIX), BARBERI, FEROTHERM, PAW, EURONORM, IMP, DANFOSS, BESSER

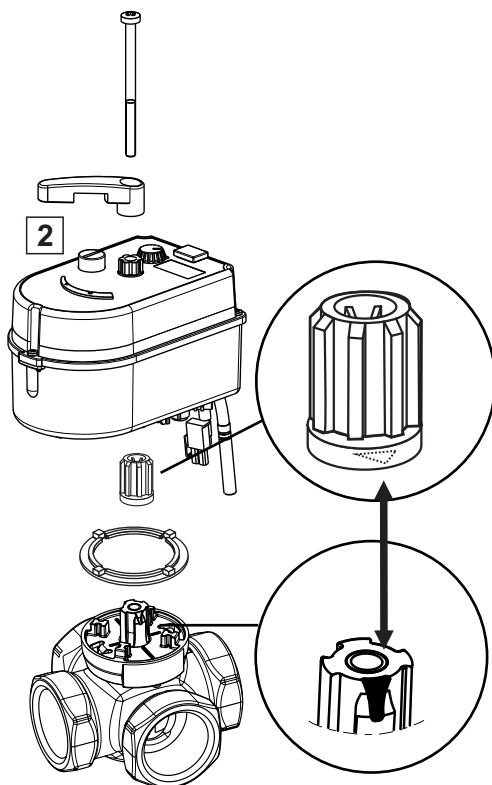


ESBE VRB, VRG

1



2

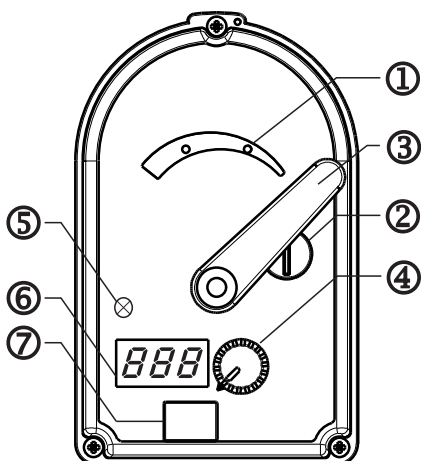


Mounting kit

<b>Code</b>	<b>Enclosed mounting kit</b>
58024	FIRŠT (ROTOMIX, ROTOMIX G), ESBE (VRG, VRB), ACASO (TERMOMIX), BARBERI, FEROTHERM, PAW, EURONORM, ESBE, IMP, DANFOSS, BESSER, SELTRON, LOVATO, TUXHORN, STRAWA, CIMBERIO.

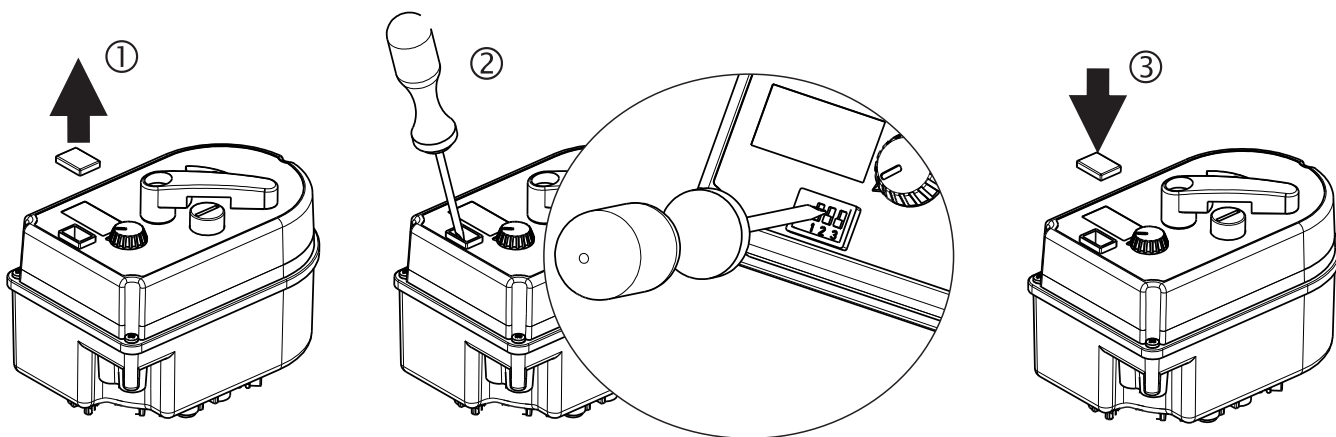
	<b>By special request</b>
58025	SELTRON, LOVATO, PAW
58026	LAZZARI, LANDIS
58027	HONEYWELL MS
58028	SIEMENS
58029	MUT
58030	W.I.L.B
58031	CENTRA
58032	MEIBES, WITA, OVENTROP, HOLTER HORA BR80 SMD/SMV
58033	TEHNOPLANT, EXCELSIOR, KRAMER, DE PALA

Settings:



- 1 Mechanical indication. Indicator can be set according to the valve assembly
- 2 Button for manual/auto control
- 3 Handle for manually controlling the drive, which also serves for the indication position of the valve
- 4 Button for adjusting the required temperature. When adjusting the temperature, the set value flashes on LCD screen.
- 5 LED indication of:
  - Flash: actuator calibration
  - ON: normal operation
- 6 LCD screen for displaying temperature
- 7 DIP switches cover

DIP switch settings



With DIP switches inside actuator is possible to set the following parameters:

- DIP 1 Direction of rotation (direct CW / inverse CCW)
- DIP 2,3 Different temperature ranges depending on the application (0°C..100°C, 60°C..85°, 20°C..70°C, 25°C..45°C)
- DIP 4 Reaction factor

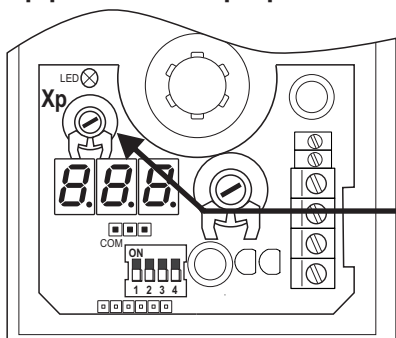
NOTE – when changing DIP1 position, controller calibration is carried out

Xp parameter a proportional control range of valve	DIP switch settings				
	ON	CW	Temperature range setting		x10
		CCW			x1
	1 2 3 4	1	2	3	4

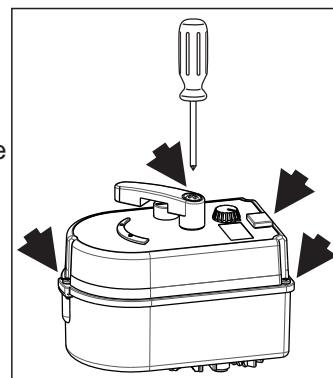
ON	Temperature range setting				
	DIP	0°C..100°C	60°C..85°	20°C..70°C	25°C..45°C
	2	OFF	OFF	ON	ON
1 2 3 4	3	OFF	ON	OFF	ON

Xp parameter - a proportional control range of valve (from 10K to 100K)



Trimmer Xp is located inside controller. To open the controller it is necessary to loosen the screws on the cover (3x), and handle screw (1x).

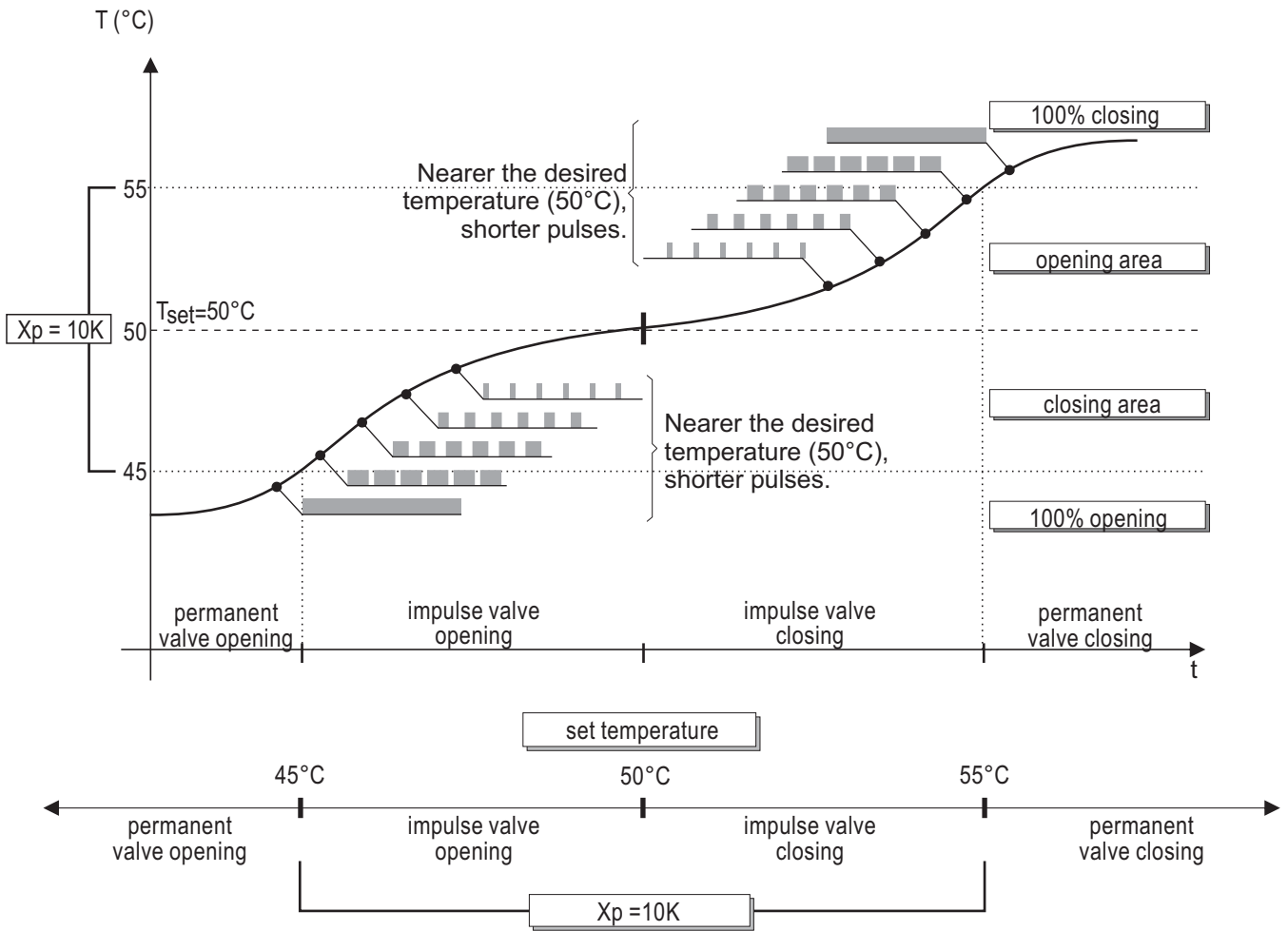
Xp parameter - a proportional control range of valve (from 10K to 100K)



**Controller behavior diagram as a function of temperature:**

Example:

- Desired temperature: 50°C
- Xp parameter – proportional control range of valve (10K)



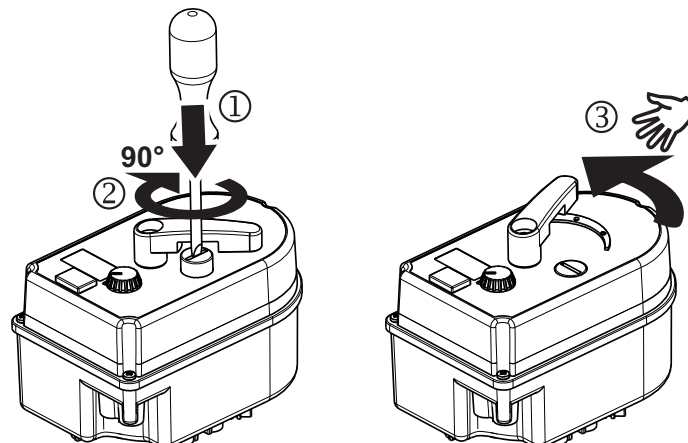
When the temperature is less than 45°C, controller gives continuous signal for opening mixing valve.

When the temperature is between 45°C and 50°C, controller pulsating opens mixing valve. Nearer the desired temperature (50°C), shorter pulses.

When the temperature is between 50°C and 55°C, controller pulsating closes mixing valve. Nearer the desired temperature (50°C), shorter pulses.

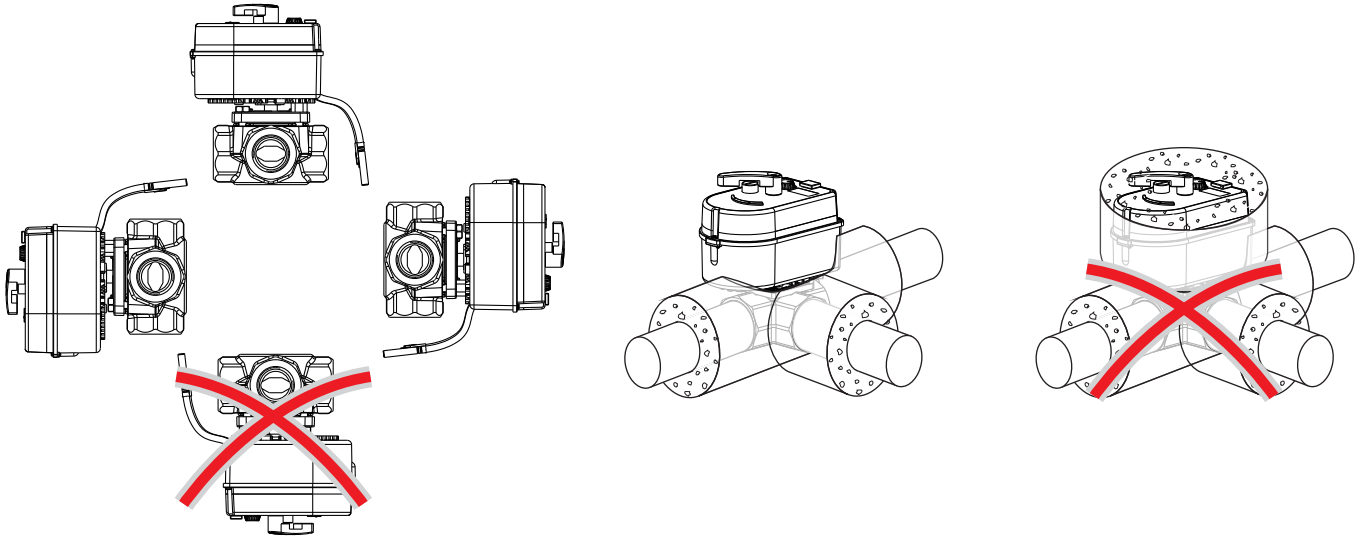
When the temperature is higher than 55°C, controller gives continuous signal for closing mixing valve.

**Manual control:**

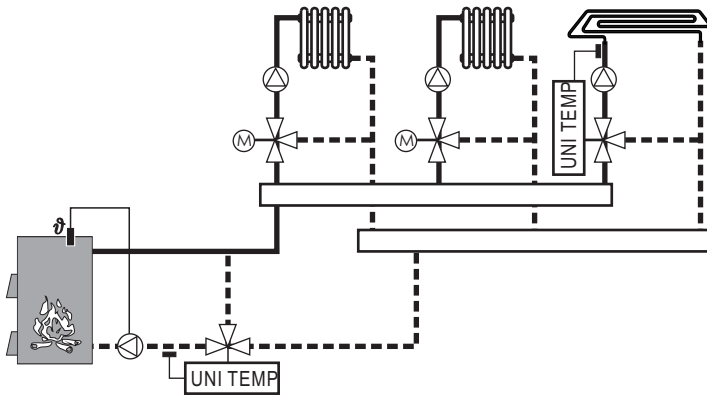


**Note:** when the button for manual operation is in <MAN> position, controller stays in temporary position irrespective of control signal.

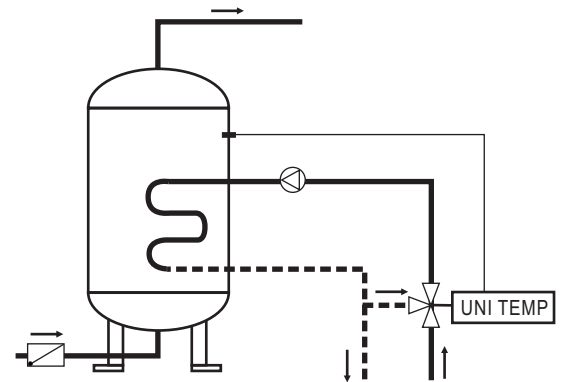
Recommended mounting position



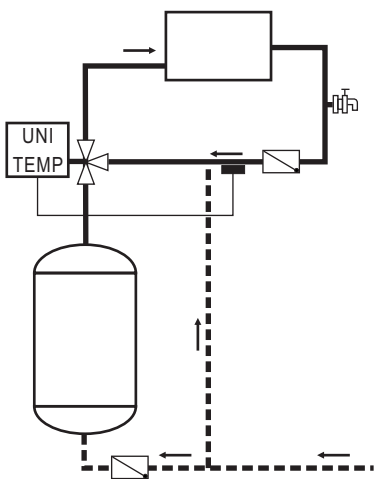
Examples:



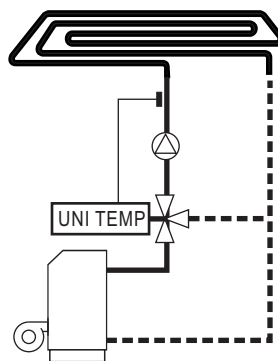
Solid fuel boiler - Maintain a constant temperature in heating circuit



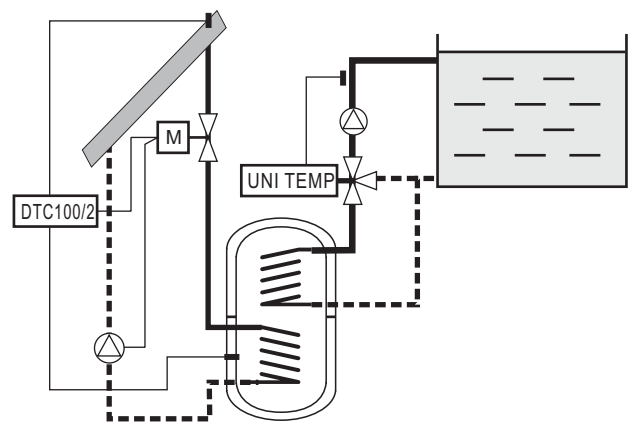
Maintain a constant temperature of heat reservoir



Maintain a constant temperature in sanitary water circuit

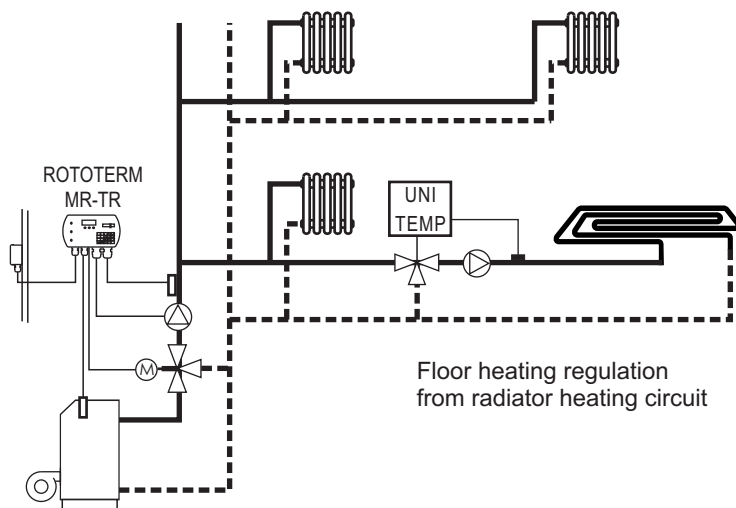


Floor heating - Maintain a constant temperature of heating circuit



Solar pool heating - Maintain a constant temperature of heating circuit

## Examples:



## Safety notes:

- The actuator has been designed for use in stationary heating, ventilation and air-conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Caution power supply voltage – 24VAC.
- It may only be installed by suitably trained personnel. All applicable legal or institutional installation regulations must be complied with.
- The device must be protected from moisture and is not recommended for use in external applications.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- The cable must not be removed from the device.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

## In compliance with standards

All our products fulfil the essential safety and protection requirements for CE conformity marking according to the following directives: EMC directive: 2004/108/EEC / LV directive: 2006/95/EEC / PAH directive 2005/69/EEC.

## In compliance with standards:

EN 60730-2-14; 1997 + A1:2001 + A11:2005 + A2:2008  
 EN60730-1:2000 + A12:2003 + A12:2004 + A14:2005 + A16:2007 + A2:2008  
 EN 55014-1:2006  
 EN 61000-3-2:2006  
 EN 61000-3-3:2006  
 EN 62233:2008  
 ZEK 01.2-08

We reserve the right to modify the instructions and the technical data of the product without prior notice.

**FIRST®**

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