

FIRST®

CE

FEATURES

- Quick and simple assembly the actuator on the mixing valve by push/pull system, without screwing



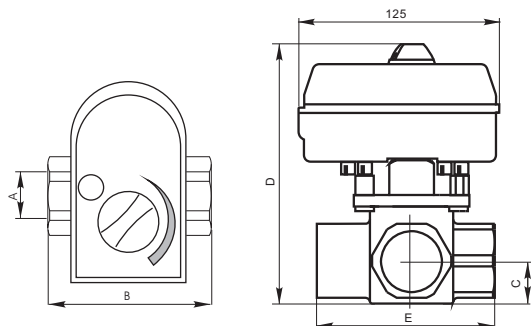
Drive unit

Housing Synthetic materials (PA66)

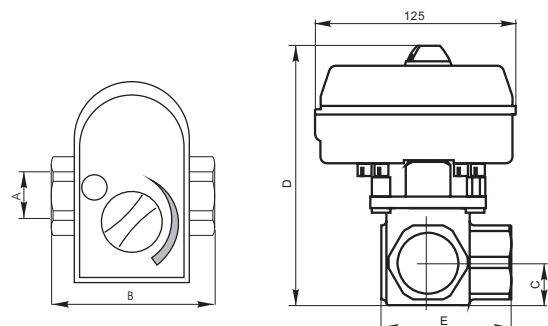
Bearing.....4x O-ring, EPDM

Mixing valves are used for controlling flow temperature in heating systems in which a certain leakage can be accepted and in which a defined control characteristic is not required.

WITH THREE WAY BRASS MIXING VALVE

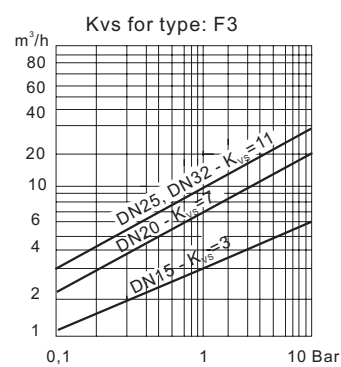
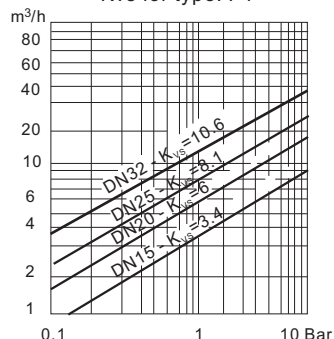
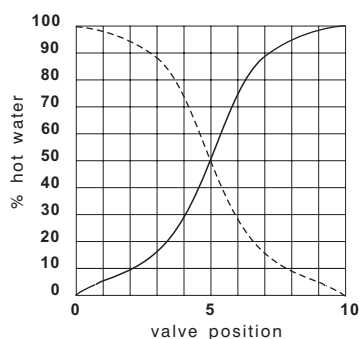


	CODE	DN	A	B	C	D	E	K _{VS}	
EUROMIX F4-2	10055	15	1/2"	72	18.5	139	72	3,4	1,34
EUROMIX F4-3	10056	20	3/4"	72	18.5	139	72	6	1,22
EUROMIX F4-4	10057	25	1"	90	24	146	90	8,1	1,97
EUROMIX F4-5	10058	32	1 1/4"	90	24	146	90	10,6	1,56



	CODE	DN	A	B	C	D	E	K _{VS}	
EUROMIX F3-2	10051	15	1/2"	72	18.5	139	54	3	1,29
EUROMIX F3-3	10052	20	3/4"	72	18.5	139	54	7	1,19
EUROMIX F3-4	10053	25	1"	90	24	146	69	11	1,10
EUROMIX F3-5	10054	32	1 1/4"	90	24	146	69	11	1,53

Kvs for type: F4

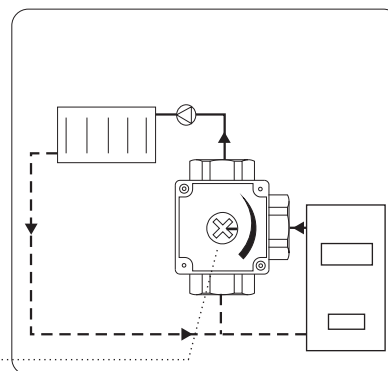
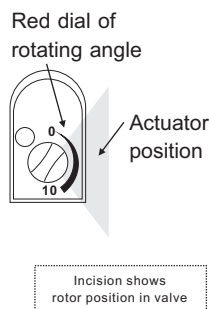
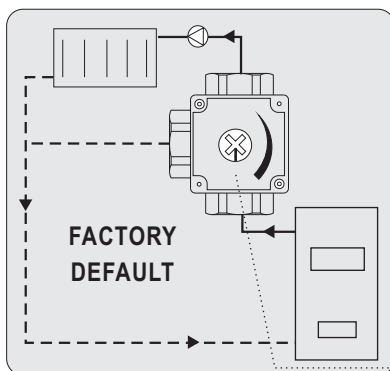
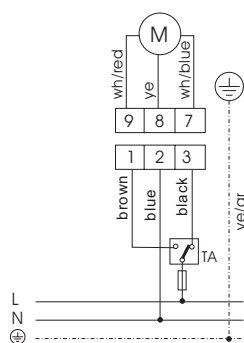


! WARNING ! The motor is not equipped with a connecting cord with plug nor with a switch for disconnecting the device from the mains ! Therefore the connection should be performed through a suitable external switch ! It is also necessary to built-in a fuse in front of the drive to protect it from the current overloads ! The device should be protected from over voltage shocks ! Before each intervention the drive should be disconnected from power supply ! By installation must be observed to according to relevant local standards. The installation must be grounded.

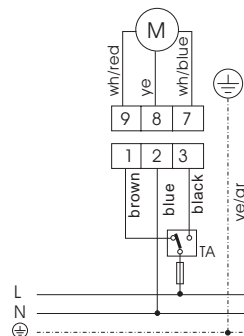
ELECTRIC CONNECTION (with three way brass mixing valve)

The motor is equipped with cord of connection to the mains. When connecting the drive it is not necessary to open it.

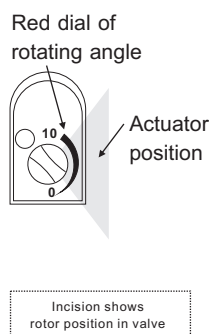
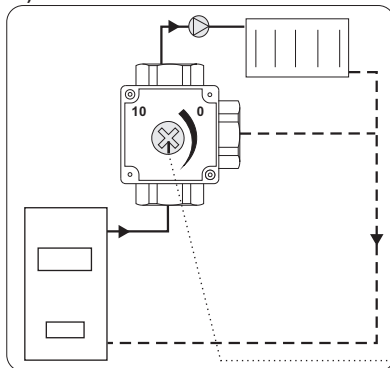
1. 2. Boiler on right



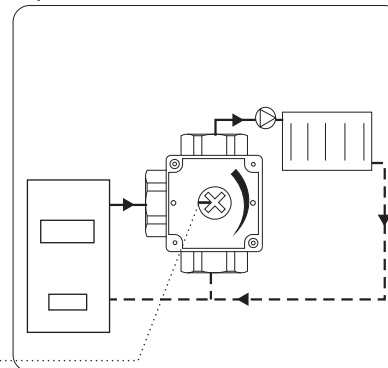
2. Boiler on left



C.) Inlet from bottom



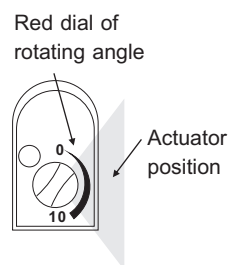
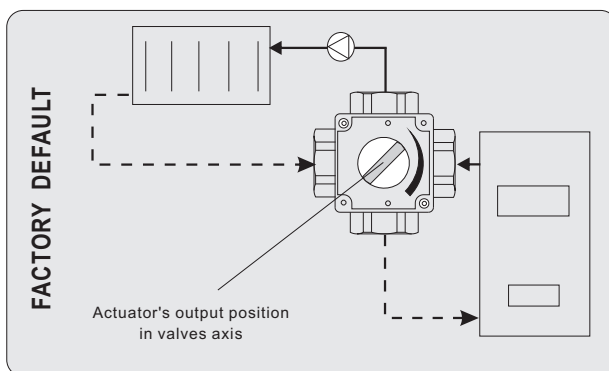
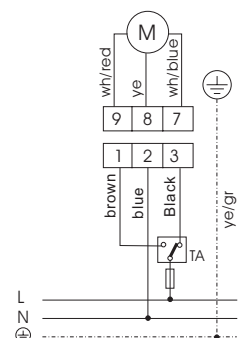
D.) Inlet from left



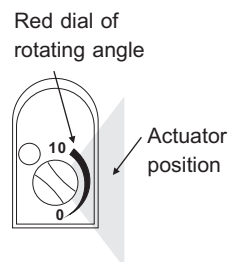
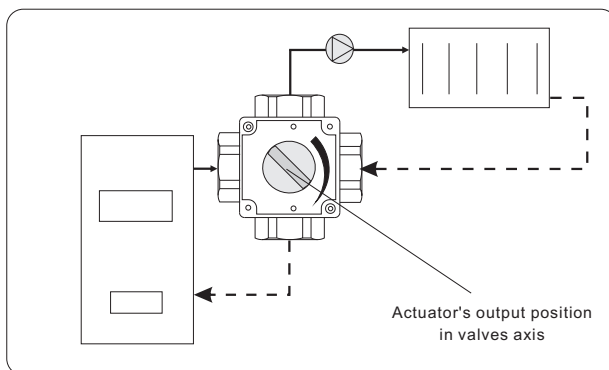
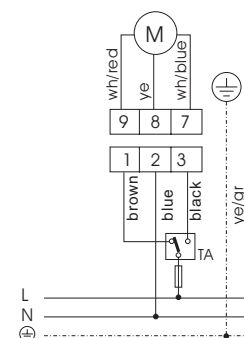
ELECTRIC CONNECTION (with four way brass mixing valve)

The motor is equipped with cord of connection to the mains. When connecting the drive it is not necessary to open it.

1. Boiler on right



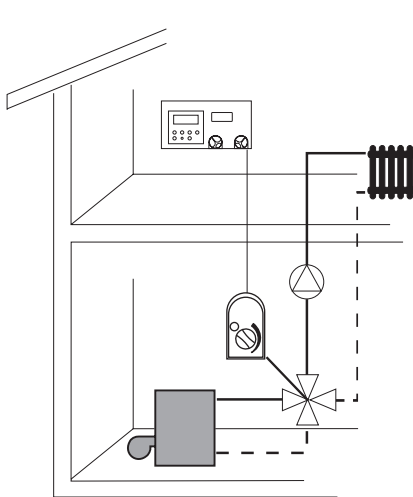
2. Boiler on left



! WARNING !

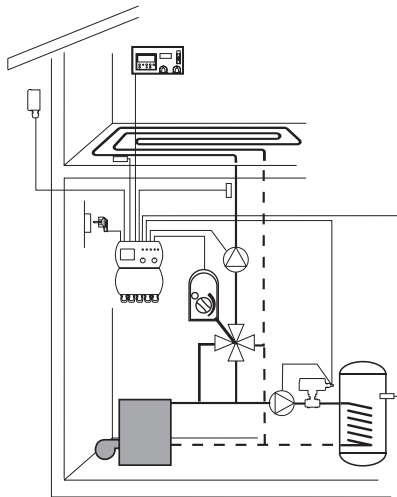
Electrical connection to the mains can be performed only by qualified person in compliance with local regulations.

EXAMPLES FOR USE OF THE DRIVE IN HEATING SYSTEMS



VALVE CONTROL OPEN/CLOSE:

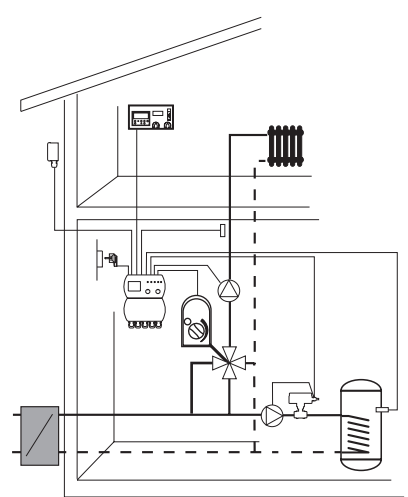
It is performed with the connection of the drive on room thermostat thought a switching contact. The above example shows our ELTHERM AT8 room thermostat. When the drive is connected to room thermostat thought operating contact only, use an external relay or a drive version built-in relay module.



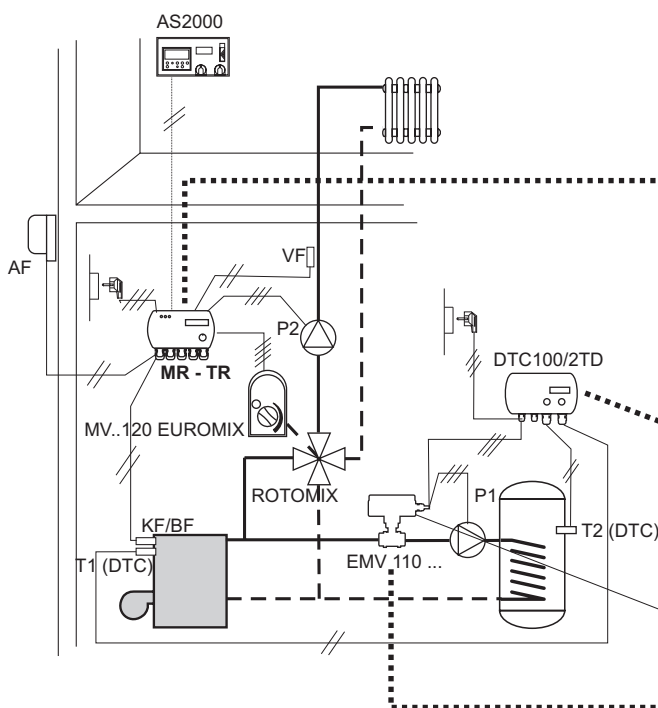
CONTROL OF VALVE POSITION:

The control is performed with the connection of the drive to 3-point regulation control unit which regulates the temperature of heating water with mixing valve in dependence from outer and/of room temperature (programme ROTOTERM). The left above example shows the regulation of floor heating with programmable regulation control unit ROTOTERMAT2000. The right example shows remote heating system. Heating is regulated with programmable control unit ROTOTERM R2000. There can be used also other ROTOTERM control units from our production range, witch are mounted on the wall.

In both cases the heating of sanitary water in water heater is separately regulated thought the probe of the heater. Output from the regulator is controlled by motor driven ball valve EMV110.. of our production range and it controls also the pump for water heater. Use of EMV prevents thermal circulation of water thought water heater.



Example of use with heating controller ROTOTERM MR-TR "plus"



ROTOTERM MR-TR "plus"

3-point regulator, which regulates the temperature of heating water with mixing valve.



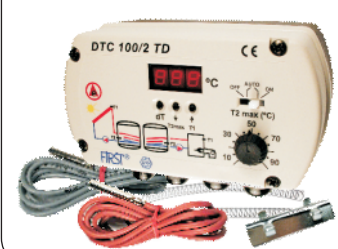
- Contents of the package*
- ROTOTERM MR-TR regulator
 - complete of sensors (outside sensor, mixed flow sensor and boiler sensor)
 - mounting kit
 - Indoor programming unit AS2000-D

EMV 110..602 Motorized ball valve



- built-in relay

DTC100/2TD Differential thermostat



MR-TR regulator



AS 2000 room unit



DTC100/2TD differential thermostat



Electromotor drive for brass mixing valve EUROMIX MV 120..



ROTOMIX 3 or 4 way brass mixing valve ROTOMIX F3 or F4



T - sensor

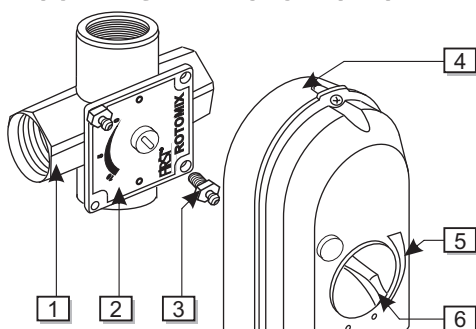


EMV 110..compact



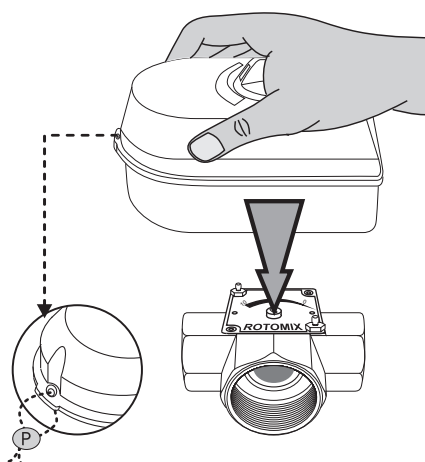
P1, P2
P1 - pump for sanitary water heating
P2 - pump for heating circle

MOUNTING THE ACTUATOR ON THREE OR FOUR WAY BRASS MIXING VALVE



LEGEND :

- 1 - valve
- 2 - valve indicating plate
- 3 - screw with supporting spacer
- 4 - rotary actuator
- 5 - valve position pointer
- 6 - knob for manual control



Push the actuator direct on the mixing valve, that it sit on supporting spacers and the mounting is finished.

If you want to remove drive because of any kind of the reason, you can simply pull it off the valve !

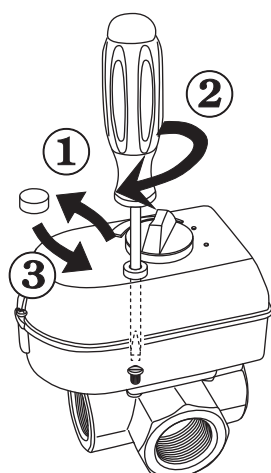
Possibility of sealing the housing of the actuator.

OPTION FOR ACTUATOR SCREWING ON VALVE

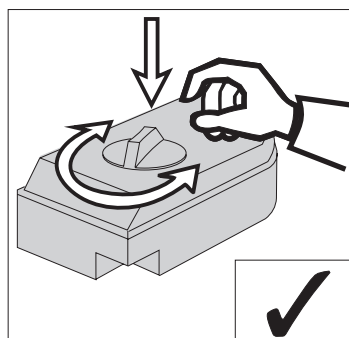
To fix the actuator on the valve it is NOT REQUIRED TO OPEN it!

The screw for the actuator screwing on the valve is inserted in drive bottom!

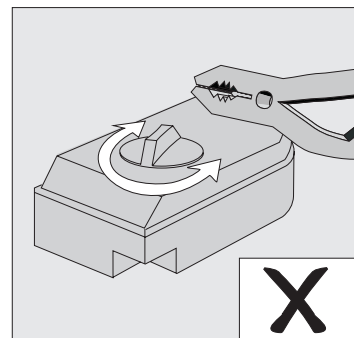
1. Remove protective tap.
2. Use flat screwdriver to screw the drive on the valve.
3. Replace protective tap into the opening.



MANUAL CONTROL



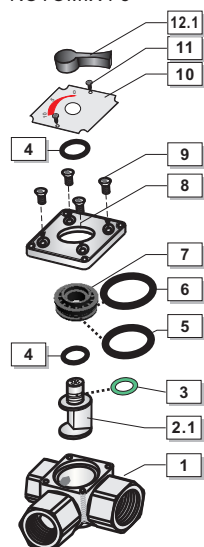
The rotary actuator is equipped with a knob for manual control (in case of current breakdown). Press the knob towards the valve and turn it to the left or right direction (depends whether you want to open or close it).



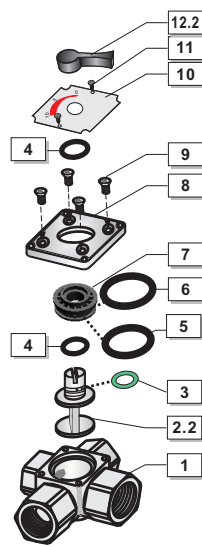
Do not try turning the knob with tongs, because you can damage the gear box! In case the knob can not be turned with hand, disassemble the mixing valve, clean and lubricate it.

MIXING VALVE'S PARTS

ROTOMIX F3



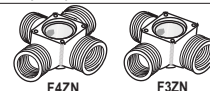
ROTOMIX F4



POS	NAME	PCS
1	Body	1
	Hot stamped CuZn39Pb3	
2.1	Rotor with stem	1
	Brass CuZn39Pb3	
2.2	Flap stem	1
	Brass CuZn39Pb3	
3	O-seat 8.73x1,78	1
	Viton FKM	
4	O-ring 11.6x2,4	2
	EPDM	
5	O-ring 23.3x2,4	1
	EPDM	
6	O-ring 27x2,5	1
	EPDM	
7	Insert	1
	RYTON R-4-200 BL	
8	Valves top	1
	alloy	
9	Screw M5x10 DIN 965	4
10	Position plate	1
	Al	
11	Screw 2.9x6,5 DIN 7981 BC	2
12.1	Handle of 3-way valve	1
	PA	
12.2	Handle of 4-way valve	1
	PA	

Special versions of valves: inner/outer threads

TYP	Inner/Outer(DN)	CODE
MV120 F3ZN/540	DN20 / DN25 - 3/4" / 1"	10059
MV120 F3ZN/540	DN25 / DN40 - 1" / 1 1/2"	10060
MV120 F4ZN/540	DN20 / DN25 - 3/4" / 1"	10061
MV120 F4ZN/540	DN25 / DN40 - 1" / 1 1/2"	



Actuator versions:

TYP	VOLTAGE	TIME	CODE
MV120..540	230VAC, 50/60Hz	210s/90°	10046
* MV120..510	230VAC, 50/60Hz	105s/90°	10047
* MV120..543	24VAC, 50/60Hz	210s/90°	10168
* MV120..513	24VAC, 50/60Hz	105s/90°	10179

* Only by special request

Spare O-ring
(position 4)
code: 500075

FIRST®

FIRŠT-ROTOTEHNIKA, s.p.,

Radegunda 54, 3330 Mozirje

tel: ++386 3 898 35 00, fax: ++386 3 898 35 35

info@first.si, <http://www.first.si>