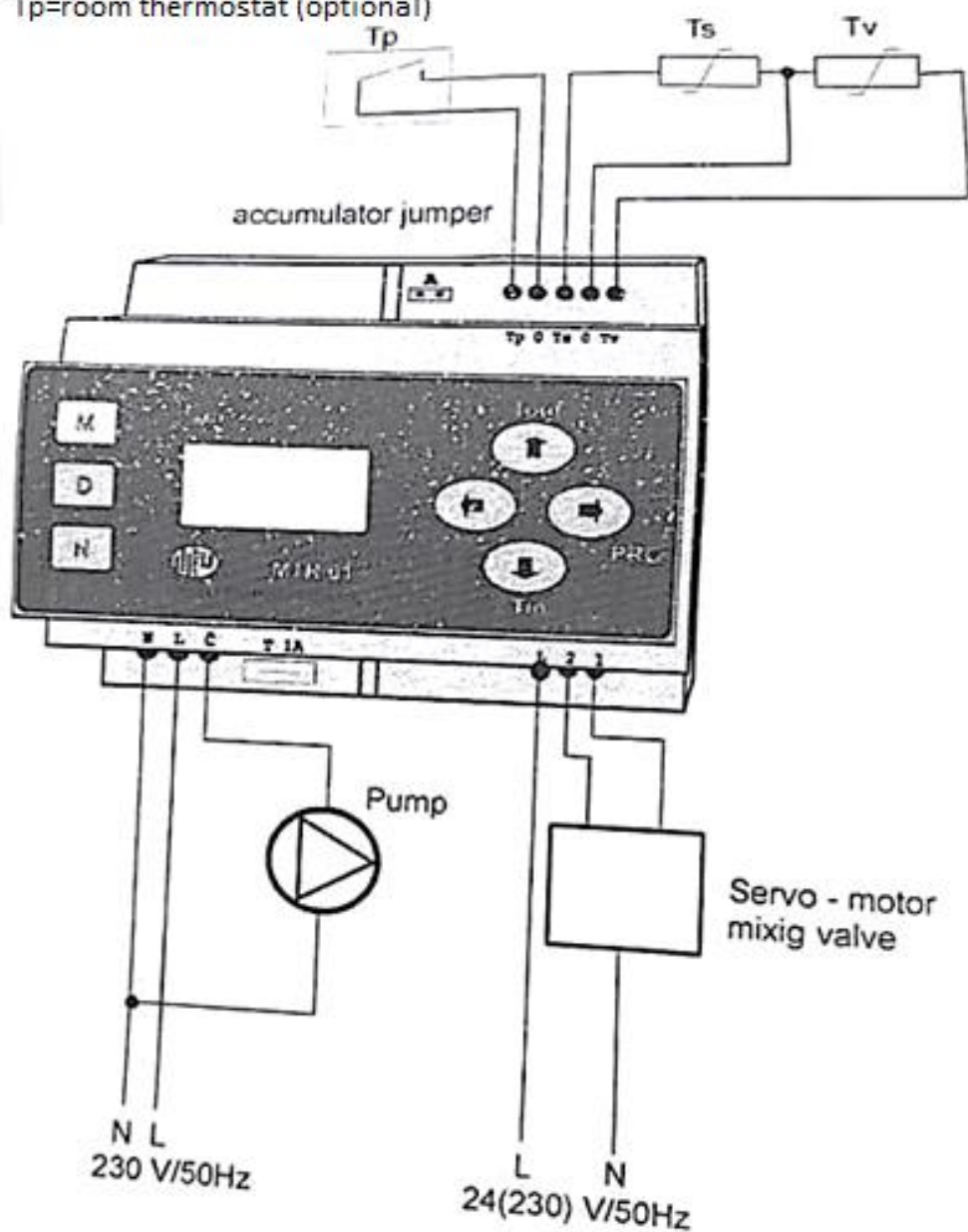# Ekviterm regulator of
heating circle MTR01

Instruction

To=outdoor temp.sensor
Ts=heating water temp.sensor
Tp=room thermostat (optional)

MTR01 PID regulator, designed to control a mixing valve with a servomotor and a pump in the heating circle. Regulator can be used in all types of warm-water systems (heater, floor heating) equipped with a mixing valve

Tehniskie dati

power supply	230V+105-155, 50-60Hz
alowed overvoltage	Category II-acc to IEC 664
input power	1,8VA (regulator only)
pump output	230V 50Hz / 1A max
output relay	AC /DC24V ...230V
rated current	5mA... 1A (cos >0,6)
output Č protection	T1A
Output 1,2 protection	T1A
max.operating temperature	5 up to40 °c
max. humidity	80%
protectio	IP20
dimensions	90X106X60mm3
weight	400g
temperature sensors	NR355 20K Ω/25 °C
data backup	1 month (at 25C MAX)
accumulator used	NiCd 3,6V 65m Ah

Regulator installation

the box is designed for verctical positioning in a distribution board on DIN mounting rail. The regulator must be installed by a specialist appropriately qualified in electrotechnics and the installation must comply with all regulations in force. The regulator is interconnected with screw clamps, see figure on page.2. Power supply must be provided by a cable with a minimum profile 3x0,75mm, the value of securing elements Po can be max. 1A.

Installation of outdoor and heating water sensor

The heating water sensor is located on the output pipeline behind the mixer and the ciculating pump and it is attached by suplied elastic tape. The contact area must be clean (remove any paint). The sensor must be attached firmly to the surface. Use heat-conductive paste and prevent all heat sources from affecting the sensor. Minimal diameters of cabels 2x0,5mm, at lenght above 20m 2x1mm
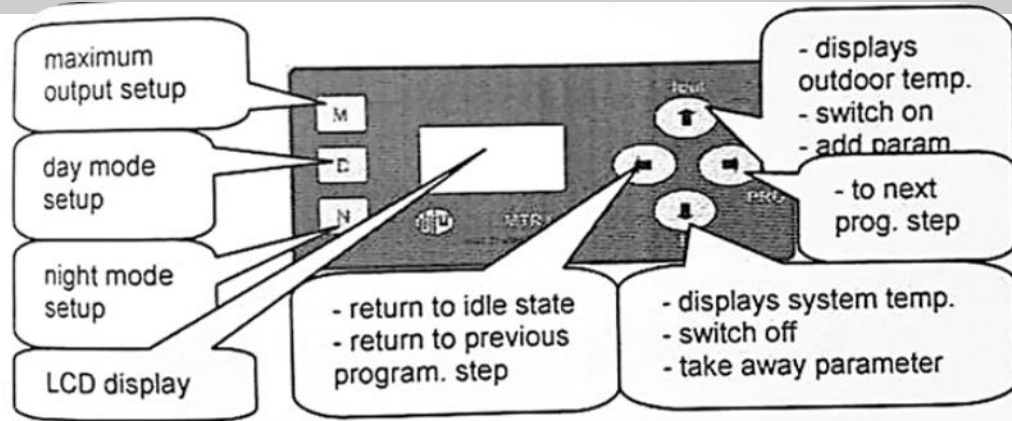
Servo-drive connection

Any servo-drive with the supply voltage of 24v.. 230 and the consumption of max 1a can be connected to the regulator.

Pump connection

Any circulating pump with the supply volatge of 230V AC and the consumption of max 1A can be connected to the regulator

Operating elements

Regulator setup procedure

Startup-when the regulator is connected to mains power supply, the display shows **00:00** (00 hours, 00minutes, date 1,1,2006) and the time starts to count (refreshes every minute)

Backup accumulator-the accumulator is connected through A jumper and provides the backup of preset values and actual time in case of power loss, event. in case the regulator has been temporarily disconnected (for approx. 1months) The mains power supply of the regulator should not be disconnected for a long time (e.g. for the whole summer period)

Regulation-now the regulator is serviceable. It works according to ekviterm curve 9 (heating water temperature of 90 at the outdoor temperature of -20) and with other parametre, see. ''factory configuration'' in chapter programming. All parametrs can be reprogrammed.

The regulator can be rest factory (intial) configuration: If the power supply is disconnected and then reconnected in approx. 10s. While reconnecting, it is necessary to press the button▼until the display shows text, then confirm the reset to initial values by ▶or start the regulator with previous setup by press. ◀