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## RT-826 TEMPERATURE REGULATOR



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F&F products are covered by a 24 months warranty from date of purchase

### PURPOSE

The temperature controller is used to control heating and ventilation equipment to maintain a constant temperature.

### REGULATOR FUNCTIONS

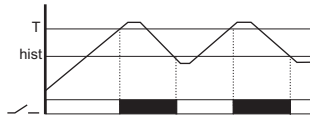
- \*Work mode: heating / cooling.
- \*Correction indications of  $\pm 9^\circ\text{C}$ .
- \*Alarm temperature exceeded  $5^\circ\text{C}$  from the setpoint.
- \*The projection of the current measured temperature.

### FUNCTIONING

Regulator, depending on the selected mode of operation, is designed to control heating or cooling appliances. The operating mode is indicated on the display value of current measured temperature. Closing the control contact (switch on-controlled devices) is indicated by a red LED  $\checkmark$ . Setting the desired temperature and hysteresis and mode of operation is done by using two buttons on the front of the controller. Exceeding the temperature by  $5^\circ\text{C}$  from the set pulse is indicated by the display.

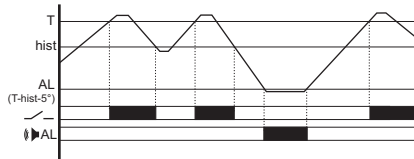
### -O- - HEATING mode

By the time you reach the desired temperature relay joint is closed (cooling switched). Achieving the desired temperature to open the joint (cooling off). Increasing the temperature of the hysteresis value will re-close the tightness. The drop in temperature measured at  $5^\circ\text{C}$  below the hysteresis value is indicated by a rapid pulse digits (measured value) on the display.



### -O6- - COOLING mode with alarm function [ $-5^\circ\text{C}$ ]

As a preliminary -O- mode. If the measured temperature falls by  $5^\circ\text{C}$  below the hysteresis value alarm will be heard. Optionally you can connect an external light signaling acting jointly with buzzer.

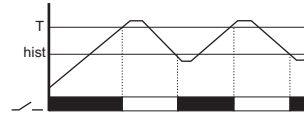


Optionally, the controller carries sound and visual signaling exceed the temperature measured at  $5^\circ\text{C}$  above the set (eg in case of failure of the controlled device, or "glue" the contacts of the regulator).

### WORKS MODES

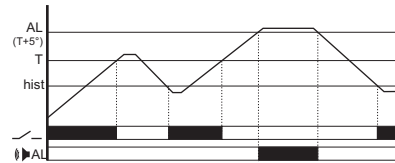
#### -H- - HEATING mode

By the time you reach the desired temperature relay joint is closed (heating device aswitched). Achieving the desired temperature to open the joint (the heating unit off). The drop in temperature causes the hysteresis value again close the tightness. Excess temperature, measured at  $5^\circ\text{C}$  above the set temperature is indicated by a rapid pulse digits (measured value) on the display.



#### -H6- - HEATING mode with alarm function [ $+5^\circ\text{C}$ ]

As the mode -H-. In cases where the temperature measured at  $5^\circ\text{C}$  above the set alarm will be heard. Optionally you can connect an external light signaling acting jointly with buzzer.



### PROGRAMMING

#### SETTING WORK MODE and HYSTERESIS

##### Work Mode

In the working mode at the same time, press briefly ( $<1\text{ sec.}$ ) + and - buttons. On the display will show - - - (level of selection mode and hysteresis settings.) By buttons + / - to select the setting mode (possible symbols: -H-, -H6-, -O-, -O6-). + And - buttons simultaneously press and hold until the pulsation of the symbol on the display ( $> 5\text{ sec.}$ ). Release the buttons. The display stops flashing. By buttons + / - to select the operating mode. After 5 secs. inactivity is followed by a return to automatic level adjustment mode selection and hysteresis (- - -). Buttons + and - simultaneously press a short time ( $<1\text{ sec.}$ ). The regulator returns to operating mode (temperature measured reports) and automatically will start work with the new settings.

##### HYSTERESIS

In the working mode at the same time, press briefly ( $<1\text{ sec.}$ ) + and - buttons on the display will show - - - (level of selection mode and hysteresis settings.) By buttons + / - to select the setting hysteresis (symbol, k0i such as the previously set hysteresis) + And - buttons simultaneously press and hold until the pulsation of the symbol on the display ( $> 5\text{ sec.}$ ). Release the buttons. The display stops flashing. Press the + / - buttons to make setting the hysteresis value. After 5 sec. inactivity is followed by a return to automatic level adjustment mode selection and hysteresis (- - -). Buttons + and - simultaneously press a short time ( $<1\text{ sec.}$ ). The regulator returns to operating mode (temperature measured reports) and automatically will start work with the new settings.

**TEMPERATURE SETTING AND VIEWING**

**Preview**

In work mode, press briefly (<1 sec.) press + or -. The display shows the value of the set temperature. After 5 sec. regulator returns to operating mode (measured temperature readings).

**Setting**

In work mode, press briefly (<1 sec.) press + or -. The display shows the value of the set temperature. By buttons + / - to set the new value of temperature. After 5 sec. regulator returns to idle operating mode (measured temperature readings) and automatically will start work with the new settings.

**CORRECTION OF REFERENCE TEMPERATURE SETTING**

In the working mode at the same time press the + and - buttons and to hold until the appears -8 - on the display. Release the button. The display will show the previously set correction value, such as 0.2. By buttons + / - to set the new value of correction (range -5 +5 ° C). After 5 sec. regulator returns to idle operating mode (measured temperature readings) and automatically will start work with the new settings.

**ASSEMBLY**

1. Take OFF the power.
2. Regulator put on the rail in the switchgearbox.
3. Controlled receiver connect in line to joints 1-2 (separate joint of regulator).
4. Install the temperature probe at the measure temperature place and connected to the regulator. Note that the sensor was not close to the heating or ventilation. If necessary you can extend the probe cable 10m. For longer cable may experience failures in the relay.
5. Optionally, the terminal 7-8 (output AL) connected in line a visual signaling device (lamp).
6. Take ON the power.
7. Make settings of regulator program.

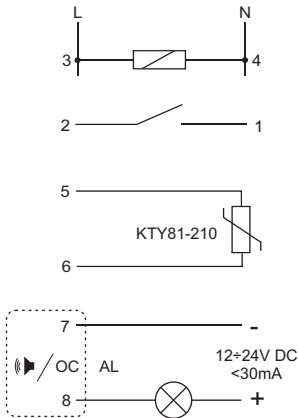
**TECHNICAL DATA**

supply	230V AC
current load	<16A
joint	1Z
range of regulation temperature.	-25+130 °C
hysteresis setting range	1+30 °C
setting precision	1 °C
precision	±1 °C
temperature sensor	KTY 81-210
sound signaling	
resonant frequency	2,4kHz
volume	80dB
visual signal output	open collector (OC)
voltage	12+24V DC
current	<30mA
display	3×sectional LED 5×9mm
signal switching contact	LED red
temperature probe	
-25+60 °C	RT
60+130 °C	RT823
power consumption	1,1W
working temperature	-25+50 °C
connections	screw terminals 2,5mm <sup>2</sup>
dimensions	2 modules (35mm)
fixing	on rail TH-35

**Dedicated temperature probe [F&F]**

mark	RT
temperature sensor	KTY81-210
sensor dimensions	Ø5; h=20mm
sensor isolation	heat shrink
cable	OMY 2x0,34mm <sup>2</sup> ; l=2,5m
mark	RT823
temperature sensor	KTY81-210
sensor dimensions	Ø8; h=40mm
sensor isolation	metal bushing
cable	refractory SIHF 2x05mm <sup>2</sup> ; l=2,5m

**WIRING DIAGRAM**



**INPUTS/OUTPUTS description**

- 1-2 normally open contact NO (normaly open)
- 3-4 supply 230V
- 5-6 temperature probe inputs
- 7-8 output AL alarm light signaling as open collector