

## DESCRIPTION

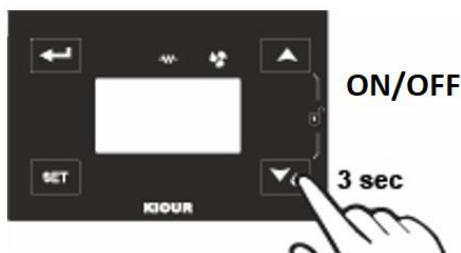
O RBR-ExR is a compact controller that controls heating elements (bain marie) using touch technology for the keyboard. It is ideal for heavy industrial environment with high current and humidity. It controls one PTC sensor in range of  $-50 \pm +150^{\circ}\text{C}$  ( $-58 \pm +302^{\circ}\text{F}$ ). It has 2 relays: one **external heater relay (30A)** and one **internal ON-OFF relay (10A)** for the cabinet's lamp. The external relay is held from a mounting frame on the controller. Also, it has an OFF state, in which all relays are OFF and OFF is displayed.

## INDICATIONS AND BUTTON OPERATIONS

Indications		button	Operations		
			pressed once	pressed more than 3sec	pressed together
	heater ON		SET POINT indication confirm new value	-	-
	fan ON		-	ON/OFF controller	unit of temperature $^{\circ}\text{C}$ displayed, if the keypad is unlocked.
	locked keyboard		-	-	
	sensor's malfunction	<b>SET</b>	cancel new parameter value	-	

## STARTING UP - SWITCHING ON/OFF THE DEVICE

At the startup of the device, the temperature controller performs a self-check for 7sec and the room's temperature is displayed. Do not touch the screen during self-check. By pressing the two buttons (, ) at the same time for 3 seconds the countdown starts and the temperature controller unlocks (images below). By pressing for 3sec we turn ON or turn OFF the controller (images below). The keyboard locks automatically after 50sec without activity.



By pressing more than 3sec the button we switch ON or OFF

## PROGRAMMING THE PARAMETERS

By pressing we enter the parameter's menu.

The first parameter "SPO" is displayed and with , we scroll into the parameters with the order they appear to parameters table below

By pressing **[SET]** the value of the parameter is displayed and with the , we change the value.

By pressing we **confirm** the new value and the name of the parameter is displayed.

By pressing **[SET]** we **cancel** the new value and the name of the parameter is displayed.

By pressing we **exit** the parameters menu.

## TECHNICAL SPECIFICATIONS

Power supply: 230VAC 50/60Hz / Maximum power consumption: 3W

It is recommended using a power supply safety fuse 0.5A (not included)

Cabinet's temperature sensor PTC 1K 25 $^{\circ}\text{C}$  / Accuracy: 0.5 $^{\circ}\text{C}$

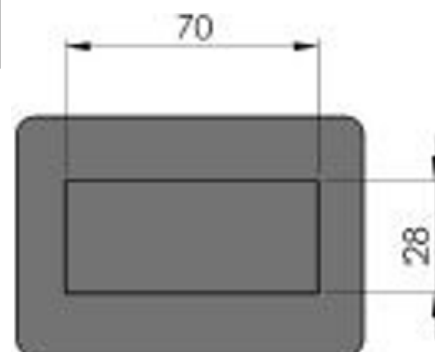
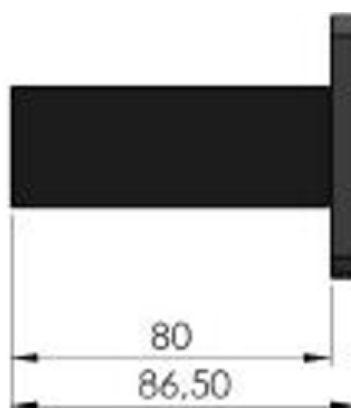
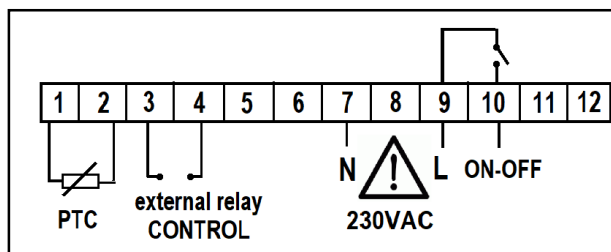
External relay for heater 250VAC 30A resistive load 2HP

Internal relay for the cabinet lamp or fan ON/OFF 250VAC 10A

Operating temperature:  $-15 \pm +70^{\circ}\text{C}$  / Storage temperature:  $-20 \pm +80^{\circ}\text{C}$

The device is mounted through panel hole 29x71mm and is restrained with two plastic side brackets / Connection with terminal blocks 18A

## CONNECTIONS - DIMENSIONS



**PARAMETER TABLE**

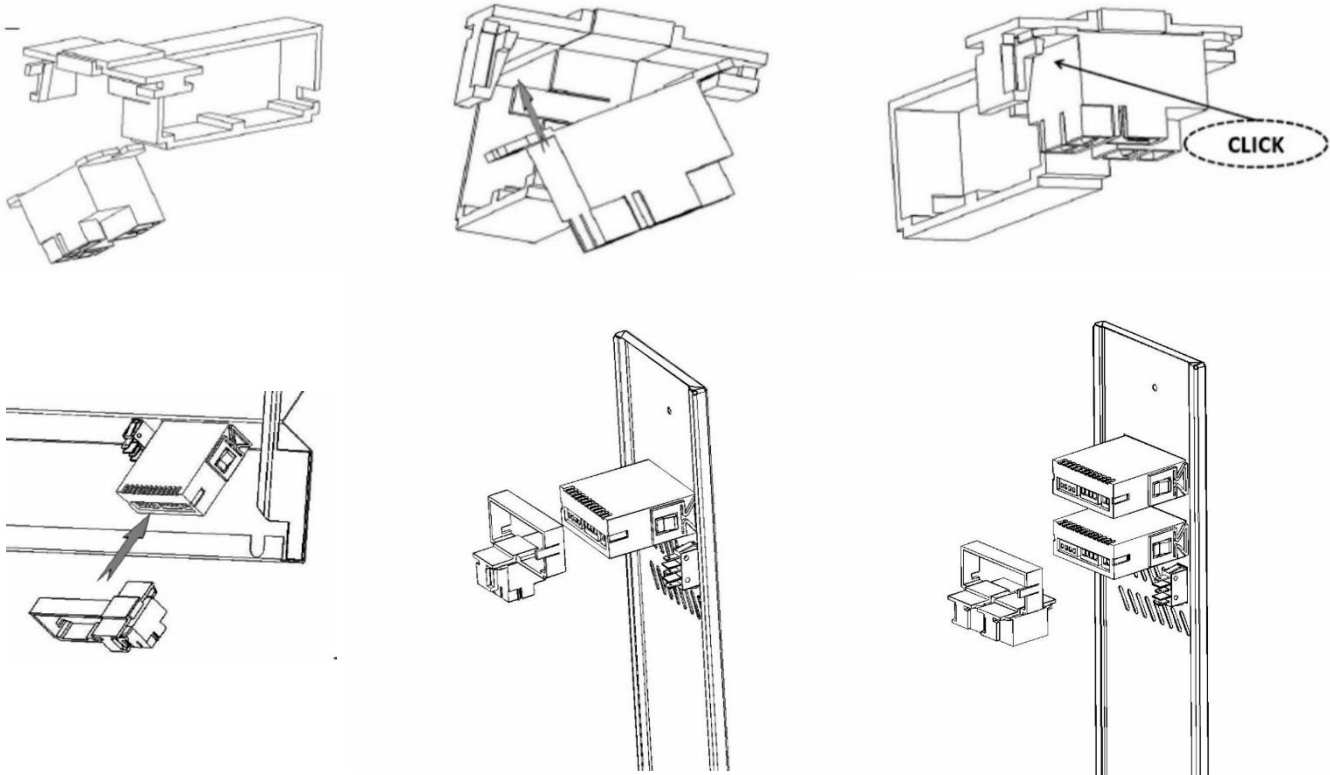
#		description	min	max	RBR-ExR	UOM
1	SPo	SET POINT: temperature control room	SLo	SHi	75.0	°C
2	Cod	code to enter parameter's menu = "22"	0	255	0	-
3	SLo	minimum temperature limit of SPo	-50.0	SHi	25.0	°C
4	SHi	maximum temperature limit of SPo	SLo	+150	90.0	°C
5	diF	differential operating of relay	0.1	25.0	5.0	°C
6	AJ1	zero adjustment	-9.0	0.0	0.0	°C
7	LAo	indication of fan on screen, where: LAo=0 fan's indication is ON, LAo=1 fan's indication is OFF	0	1	1	-

**ALARM TABLE**

1	LF1	cabinet sensor malfunction
<b>The alarms are automatically deactivated when the cause of the alarm disappears.</b>		

**HOLDER OF THE EXTERNAL RELAY**

The holder of the relay consists of a frame and a base restraint. Each frame can hold up to three relays, while each relay requires its own base restraint. The relay is secured over the frame with the help of the restraint and then the frame is secured over the controller's shell. The connections of the relay should be facing down to be protected from falling liquid, as in the following pictures.



Made in Greece.



**ATTENTION** according to safety standards, the device must be properly positioned and protected from any contact with electrical parts. All parts that provide protection must be fastened in such a way that they cannot be removed without the use of tools. **ATTENTION:** disconnect the power supply of the device before proceeding to any kind of maintenance. **ATTENTION:** do not place the device near heat sources, equipment containing strong magnets, in areas affected by direct sunlight or rain. **ATTENTION:** prevent electrostatic discharges at the side slots of the device and sharp objects from being inserted. **ATTENTION:** separate the signal's cables from the power supply's cables to prevent electromagnetic disorders. Signal cables must never be in the same pipe with the power supply cables. **Use the device only as described in this document, not to use itself as a security device. The device must be disposed of in accordance with local standards for the collection of electrical and electronic equipment. Read and keep these instructions.** The device is under two year's guarantee of good operation. The guarantee is valid only if the manual instructions have been applied. The control and service of the device must be done by an authorized technician. The guarantee covers only the replacement or the service of the device.

**KIOUR** preserves the right to adjust its products without further notice.