COOLING THERMOSTAT Model PSY3 V1 KIOUR

DESCRIPTION

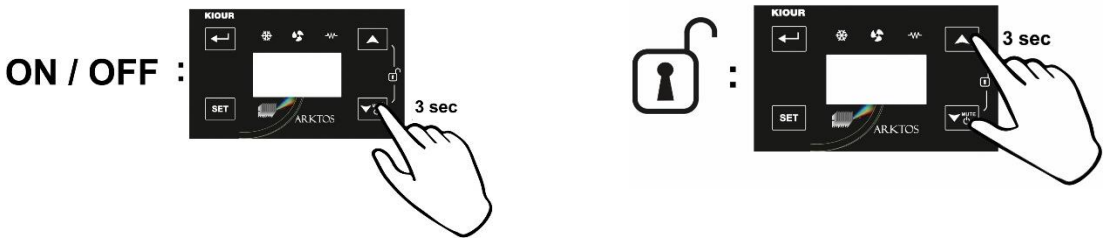
PSY3 is an air conditioning control thermostat. It controls a temperature and has **three relays**: compressor 30A, fan 10A, carter resistance 10A as well as a buzzer activation due to an alarm. The sensor is a **PTC** scale -50 ÷ + 110 °C (-58 ÷ + 230 °F). The controller has a serial input and can connect to the **KIOUR CAMIN** modbus network for full monitoring and data logging of the device.

STARTING UP 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.

SWITCHING ON/OFF THE DEVICE

By pressing more than 3sec the button [▼] we **switch ON or OFF** .



INDICATIONS AND BUTTON OPERATIONS OUTSIDE THE PARAMETER'S MENU

Indications	
❄	compressor ON
	fan ON
	resistance ON
	locked keyboard
⚠	alarm ON
	malfunction ON

button	Operations outside the parameter menu	
	pressed once	pressed mode than 3 sec
↵	enter parameter's menu	-
▼ 🔇	temperature scale °C/°F and mute the buzzer	device ON/OFF
▲	-	-
SET	-	-

PROGRAMMING THE PARAMETERS

By pressing [↵] we **enter or exit** the parameter's menu.

The first parameter "**SPo**" is displayed and with the [▲], [▼] we scroll into the parameters based on the parameter's table below.

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

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

TECHNICAL SPECIFICATIONS

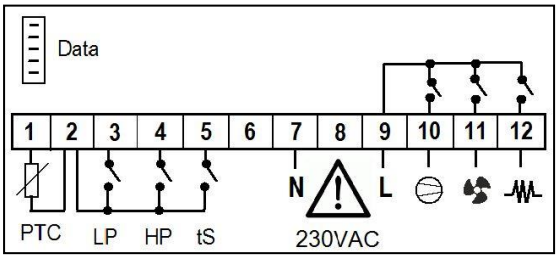
Power supply: 230VAC 50/60Hz / Maximum power consumption: 3W
It is recommended to use an external fuse - power supply safety switch (not included): 0.5A
Cabinet's temperature sensor PTC 1K 25ºC / Accuracy: 0.5°C
Alarm buzzer / Serial Input
Relay compressor 250VAC 30A resistive load / Relays fan and resistance 250VAC 10A
Operating temperature: -15÷+70°C / Storage temperature: -20÷+80°C
The device is mounted through panel hole 29x71mm and is restrained with two plastic side brackets / Connection with terminal blocks 18A
IP protection 65 (on the front) / Device cleaning: Only neutral detergents and water are used

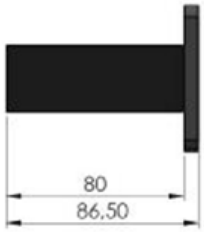
SERIAL INPUT

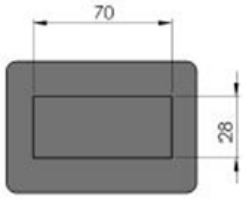
PSY3 can connect to the **key programmer** or to the data logger **Mini Logger** or to the **KIOUR CAMIN** network or to any **modbus network**.

- **Key programmer:** controller's parameter values can be saved or retrieved from the programming key. Plug in the programming key to the controller and press at the same time [**SET**]+[▲]. The device connects to the key and the message "**Eo**" is displayed. By pressing [▲] the device downloads the parameters from the key and the message "**ro**" = read O.K. or "**rF**" = read Fail is displayed. By pressing [▼] the device uploads the parameters to the key and the message "**Yo**" = Write O.K. or "**YF**" = Write Fail is displayed. In case of failure (**rF** or **YF**) reenter the key to the serial input and repeat the procedure from the beginning. The key can connect to all **KIOUR** devices. If you try to read the parameters of a different device, message "**rF**" is displayed. At any time, we can perform the aforesaid operation. After 10sec the key is disconnected.
- **Data logger Mini Logger:** the controller is connected to the data logger via cable and by programming the parameter **Add = 1**. Automatically, based on selected minutes, the data logger writes to a microSD memory card the controller's temperatures, status and alarms.
- **CAMIN network:** the controller can connect to the **CAMIN** network via an interface **NET-INS-485**. **CAMIN** is an PC software application designed to collect information, watch and fully control a net of **KIOUR** devices while sending SMS and email in case of an alarm. The maximum length of the net can be 1000 meters.

CONNECTIONS - DIMENSIONS mm







PARAMETER TABLE

#		description	min	max	PSY3	M.M
1	**SPo**	SET POINT: temperature control	SLo	SHi	24.0	°C/°F
2	**Cod**	code to enter parameter's menu = "**22**" with **Cod=31 and exit the menu** → back to **factory settings**	0	255	0	-
3	**diF**	**differential** operating temperature of SPo	0.1	25.0	3.0	°C/°F
4	**CFA**	In case of **sensor's malfunction (LF1)**, the compressor operates as follows: 0 = 40% compressor's operation (20min ON, 5min OFF), 1 = 100% compressor's operation (ON continuously).	0	1	0	-
5	**Crt**	minimum **OFF time** of the compressor	0	7	2	min
6	**AJ1**	**zero adjustment of temperature sensor**	-9.9	+15.5	0.0	°C/°F
7	**rOP**	**resistance carter operation**, where: **rOP = 0,** the resistance is deactivated **rOP = 1**, the resistance is ON when the compressor relay is OFF and the resistance is OFF when the compressor relay is ON.	0	1	1	-
8	**tSd**	**time delay for refreshing the temperature indication** on screen	0	20	0	sec
9	**F_C**	**switch °C/°F** (0=°C, 1=°F) **ATTENTION**: changes between °C/°F do not apply on SPo	0	1	0	°C/°F
10	**brA**	baud rate (9600mbps)	-	-	1	-
11	**trE**	time response of the device to the **CAMIN network**	0	100	20	msec
12	**FFu**	Fan's relay operation (**1=**ON continuously, **0=**ON when the compressor is ON).	0	1	1	-
13	**UFu**	**serial input operating mode**, where 0 = operates with the network and the serial key,1 = connects with an external device for exporting alarms. **ATTENTION**: if the value in **"Add"** parameter is ≠ 0, then the "**Ufu**" is programmed automatically to 0.	0	1	0	-
14	**SLo**	**minimum** temperature limit of SPo	-50	SHi	+18.0	°C/°F
15	**SHi**	**maximum** temperature limit of SPo.	SLo	+150	+40.0	°C/°F
16	**Add**	**address of the device** in the CAMIN network, for connection with **Mini-Logger data logger** must be **Add = 1**	0	255	1	-

ALARM TABLE

1	**LF1**	temperature sensor malfunction
2	**ALP**	alarm low pressure
3	**AHP**	alarm high pressure
4	**AtS**	alarm thermal magnetic switch

The alarms are automatically deactivated when the cause of the alarm disappears.

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CE RoHS

NO POWER & SIGNAL CABLES TOGETHER

TÜV AUSTRIA HELLAS ISO 9001:2008 No. 01013192

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 been 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.