CytroPac Cooler R988112065
Operation Manual

Water cooler installation and thermostat operation

Edition: 2020-06

1. Validity of this documentation

This documentation applies to the following product:
 • Water cooler of CytroPac, the material number is R988112065, with scope of delivery ②③④⑥⑧⑨

This documentation is intended for assemblers, operators, service engineers, system end-users, machine and system manufacturers.

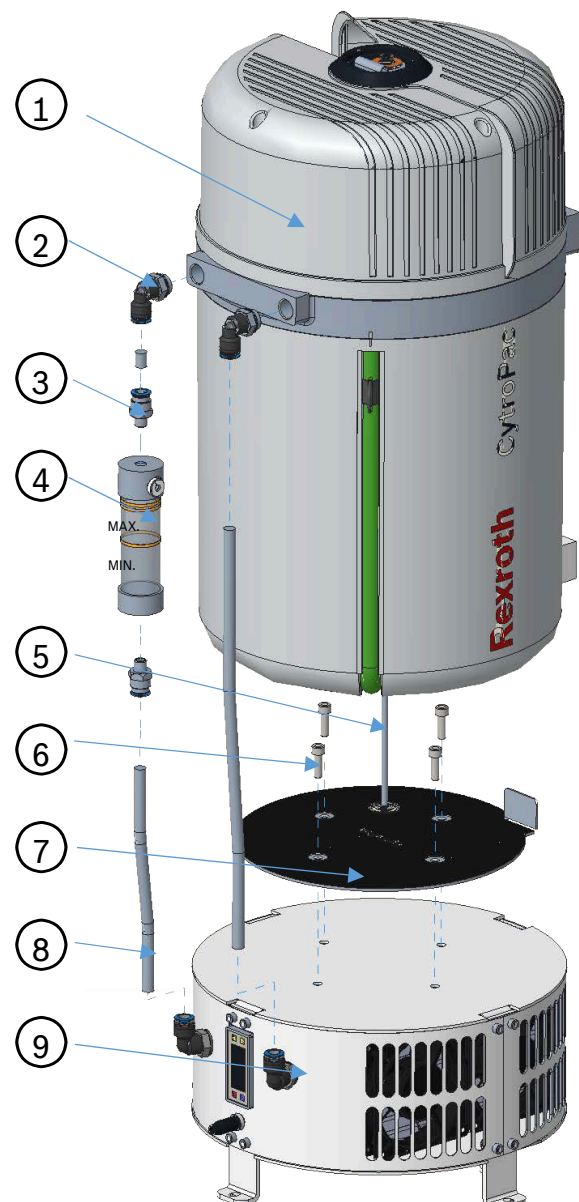## 2. Installing the cooler of CytroPac

To install the cooler you should proceed as follows:

▸ Place the cooler ⑨ on a level surface.

▸ Fixation of the installation plate ⑦ (mounting kit R901460890, optionally available with CytroPac) with 4-M8*15 ⑥, Tighten the hexagon socket head cap screw with a maximum of 13 Nm.

▸ Fixation of CytroPac ① with screw ⑤ (mounting kit R901460890, optionally available with CytroPac), refer to data sheet 51055.

▸ Connect the fittings ② to cooling plate of CytroPac, tighten the head cap screw with 10 Nm and a thread sealant.

▸ Connect the fittings ③ to reservoir ④, tighten the head cap screw with 6 Nm and a thread sealant.

▸ Connect the piping ⑧ for each fittings.

3. Filling the cooling water

Open the small plug, which is fixed on the top cover of reservoir, than fill the distilled water or ultra-pure water into cooling system. Power on water pump and fill again till the level of cooling water is reached requirement (between Min. and Max.), plug the reservoir after filling.
*Note: please re-fill again if the water below the Min. level during CytroPac operation.

4. Thermostat operation

4.1 Main function

Control the fans running according to the temperature set value and the difference value.

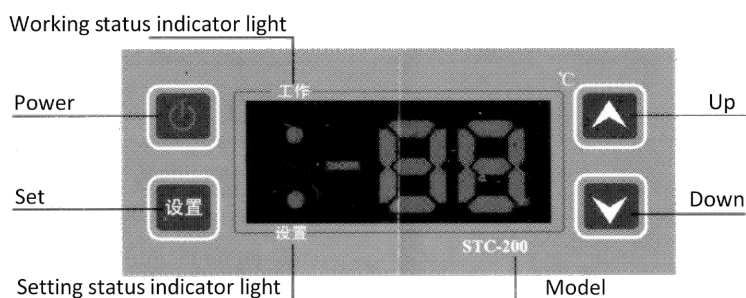### 4.2 Specification

Power supply: 24VDC
Power consumption: 5W
Temperature control range: - 40℃ ~ 70℃

Sensor: NTC
Resolution: 1℃
Accuracy: ±1℃

4.3 Panel instruction

4.4 Indicator light status instruction

Indicator light	Status	Function
Working status indicator light	light on	working
	flash	working delay
	light off	working stop
Setting status indicator light	light on	parameter setting status
	light off	Non-setting state

4.5 Menu instruction

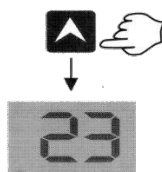| Code	Function	Set range	Default	Unit	Note
F0	Difference setting	1~15	3	℃	The temperature difference between start and stop
F1	Compressor delay	0~9	0	minute	Restart protection time
F2	Temperature lower limit	-40~69	20	℃	Minimum temperature
F3	Temperature upper limit	-39~70	38	℃	Maximum temperature
F4	Mode selection	1: Cooling 2: heating 3: Alarm	1		Function mode selection
F5	Temperature correction	-5~+5	0		Correction in case of deviation from the actual temperature

4.6 Operation instruction

4.6.1 Key function

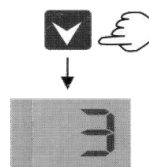| Key	Function
Press ⏻ more than 3 seconds	Turn off the thermostat
⏻	Turn on the thermostat
⌃	View temperature setting value; change parameter item and value
⌄	View setback value; change parameter item and value
设置	Enter parameter change and return to parent item during setting
Press 设置 more than 5 seconds	Enter the user setting state; the system saves the setting value and exits
Press 设置 + ⌃ more than 5 seconds	Enter the manager menu

4.6.2 Parameter view (non-setting status)

View temperature setting value

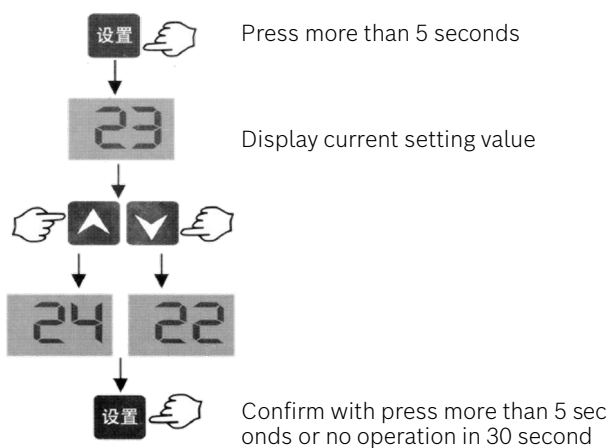**23**

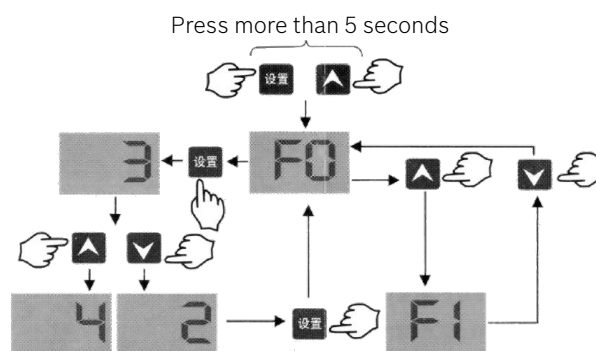Display the current setting value, 2 second back

View difference setting value

3

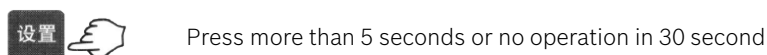Display the current setting value, 2 second back

4.6.3 Parameter setting

Set temperature value in user state

设置 — Press more than 5 seconds

23 — Display current setting value

24 22

设置 — Confirm with press more than 5 seconds or no operation in 30 second

Manager menu settings

Press more than 5 seconds

设置 ▲ → **F0** → ▲ ▼

3 ← 设置

4 2 → 设置 → **F1**

4.6.4 Exit menu
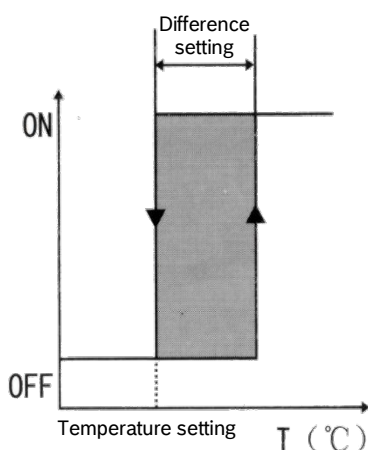
设置 — Press more than 5 seconds or no operation in 30 second

4.6.5 Parameter description

When the sensor temperature is high than the value of temperature setting + difference setting **F0** , the fans will be turn on.
When the sensor temperature is lower than the value of temperature setting, the fans will be turn off.

Difference setting

ON

OFF

Temperature setting   T（℃）

Example:
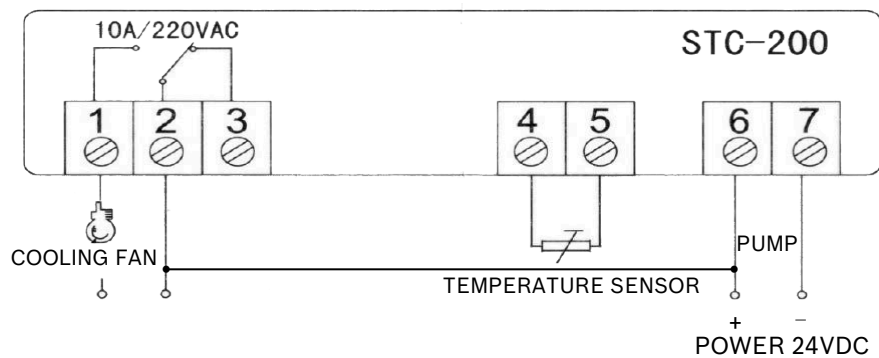
Cooling temperature setting value = 30℃, difference temperature value = 3℃,

when the temperature is higher than 33℃, the relay output will be connected and turn on the fans.

When the temperature is lower than 30℃, the relay output will be disconnected and turn off the fans.

Change the temperature set point 30℃ according to the "*set temperature value in user status*" in 6.3 parameter settings.

Change the difference temperature 3℃ according to the "*manager menu item setting diagram*" in 6.3 parameter settings.

4.7 Wiring diagram

4.8 Alarm code and description

Code	Description
Flashing display E1 and buzzer alarm	Temperature sensor is not connected or open circuit
Flashing display E2 and buzzer alarm	Temperature sensor is not connected or short circuit
Display HH and buzzer alarm	The temperature has exceeded the upper range value
Display LL and buzzer alarm	The temperature has exceeded the lower range value