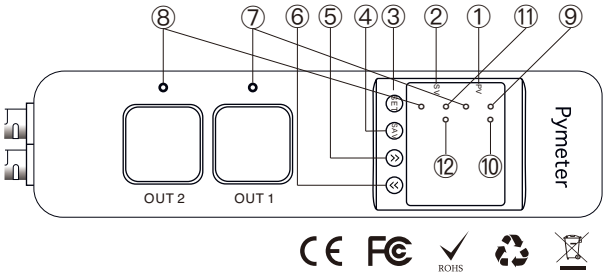
PY-20TT

Website: www.pymeter.com
Email: support@pymeter.com



1. Keys Instruction

① **PV:** under working mode, display sensor 1 Temperature; under setting mode, display menu code.
② **SV:** under working mode, display sensor 2 Temperature; under setting mode, display setting value.
③ **SET key:** press SET key for 3 seconds to enter setting.
④ **SAV key:** during the setting process, press SAV key to save and exit setting.
⑤ **INCREASE key:** under setting mode, press INCREASE key to increase value.
⑥ **DECREASE key:** under setting mode, press DECREASE key to decrease value.
⑦ **Indicator 1:** the lights are on when outlet 1 is turned on.
⑧ **Indicator 2:** the lights are on when outlet 2 is turned on.
⑨ **LED1-L:** the light is on if outlet 1 is set for **HEATING**.
⑩ **LED1-R:** the light is on if outlet 1 is set for **COOLING**.
⑪ **LED2-L:** the light is on if outlet 2 is set for **HEATING**.
⑫ **LED2-R:** the light is on if outlet 2 is set for **COOLING**.

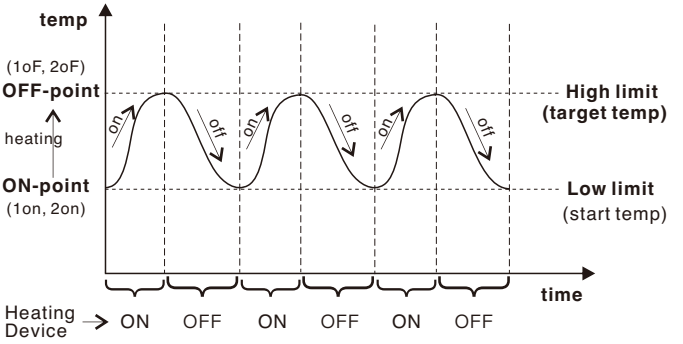
2. Setup Instruction

When the controller is power on or working, press SET key for over 3 seconds to enter setting mode, PV window displays the first menu code “CF”, while SV window displays according setting value. Press SET key to go to next menu, press INCREASE key or DECREASE key to set current parameter value.

To simple setup, just need to set values for CF, 1on, 1oF, 2on, 2oF. C and F are the temp units; 1on/2on are the ON-point temp(start/turn on temp); 1oF/2oF are the OFF-point temp(stop/turn off temp), they are also the target temps.

After setup done, press SAV key to save the settings and return to normal temperature display mode. During setting, if there is no operation for 30 seconds, the system will save the settings and return to normal temperature display mode.

3. Use for heating device



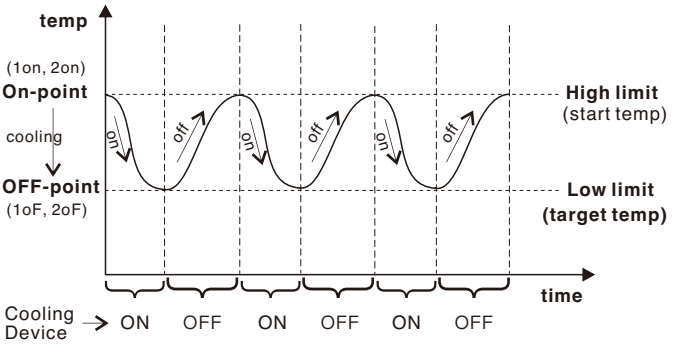
1. For heating device, turn ON at **Low** temp and turn OFF at **High** temp. MUST set ON-point Temp **<** (lower than) OFF-point Temp;

It will **NOT** work properly for heating if set ON-point Temp **> =** OFF-point Temp.

2. After plug in, if current temp is **lower** than target temp (OFF-point), outlets turn on for heating till temp reaches OFF-point.

3. After heating device is turn off, temp will auto **fall down** in the **cold** environment, outlets will not turn on until temp reaches ON-point.

4. Use for cooling device



1. For cooling device, turn ON at **High** temp and turn OFF at **Low** temp. MUST set ON-point Temp **>** (higher than) OFF-point Temp;

It will **NOT** work properly for cooling if set ON-point Temp **< =** OFF-point Temp.

2. After plug in, if current temp is **higher** than target temp (OFF-point), outlets turn on for cooling till temp reaches OFF-point.

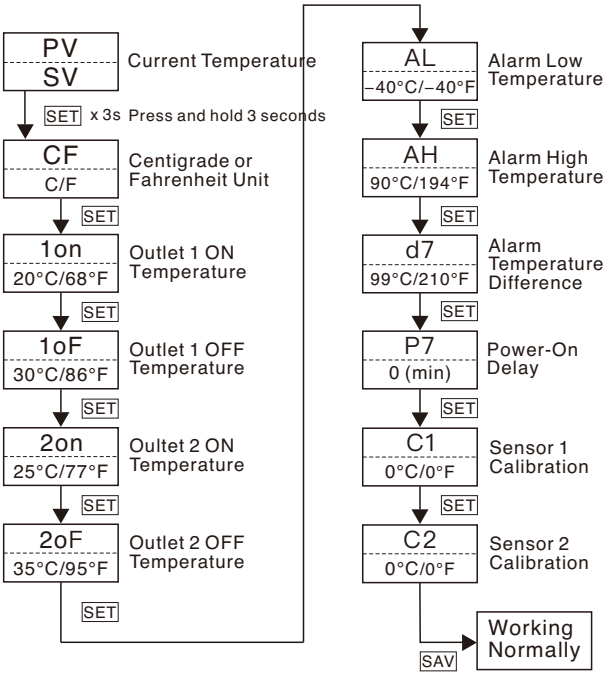
3. After cooling device is turn off, temp will auto **rise up** in the **hot** environment, outlets will not turn on until temp reaches ON-point.

Note:

1. None controller can keep temp always at target temp, to narrow down the temp range, please set ON-point closer to OFF-point(target temp).

2. Each outlet supports Heating/Cooling mode.

5. Setup Flow Chart



6. Main Features

- Designed with independent dual outlets;
- Dual Relays, able to control both Heating and Cooling devices at the same time, or control separately;
- Dual Waterproof Sensors, turn devices on and off at desired temperatures, very easy and flexible to use;
- Celsius or Fahrenheit Read-out;
- Dual LED Display, read temperature from 2 sensors;
- High and Low Temperature Alarm;
- Temperature Difference Alarm;
- Power-on Delay, protect output devices from excessive on/off toggling;
- Temperature Calibration;
- Settings are retained even when power off.

7.Specification

Temperature Range	-40~99°C / -40~210°F
Temperature Resolution	0.1 °C / 0.1°F
Temperature Accuracy	±1°C / ±1°F
Controller Dimension	210x55x40 mm
Input Power	85~250VAC, 50/60Hz
Output Power	85~250VAC, MAX 10A/16A
Buzzer Alarm	High and Low Temperature, Temperature Difference
Sensor Cable	NTC Sensorx2, 2m/6.56ft
Input Power Cord	1.35m / 4.5ft

8. MENU Instruction

Menu Code	Function	Setting Range	Default
CF	Centigrade/Fahrenheit	C / F	C
1on	Outlet 1 ON Temperature	-40°C~99°C / -40°F~210°F	20°C/ 68°F
1oF	Outlet 1 OFF Temperature	-40°C~99°C / -40°F~210°F	30°C/ 86°F
2on	Outlet 2 ON Temperature	-40°C~99°C / -40°F~210°F	25°C/ 77°F
2oF	Oultet 2 OFF Temperature	-40°C~99°C / -40°F~210°F	35°C/ 95°F
AL	Alarm Low Temperature	-40°C~99°C/ -40°F~210°F	-40°C/ -40°F
AH	Alarm High Temperature	-40°C~99°C/ -40°F~210°F	90°C/ 194°F
d7	Alarm Temperature Difference	1°C~99°C/ 1°F~210°F	99°C/ 210°F
P7	Power-On Delay	0-10mins	0 (min)
C1	Sensor 1 Calibration	-10°C~10°C/ -18°F~18°F	0°C/ 0°F
C2	Sensor 2 Calibration	-10°C~10°C/ -18°F~18°F	0°C/ 0°F

⚠**Attention: Don't compare it to common inaccurate thermometer or temp gun! Please Calibrate with ice-water mixture (0°C/32°F) if necessary!**

Remarks: Buzzer will alarm with sound “bi-bi-biii” until the temperature is back to normal range or any key is pressed; “EEE” is displayed on PV/SV window with “bi-bi-biii” alarm if sensor is fault.

Temperature Difference Alarm(d7): (Example) if set d7 to 5°C, when temperature difference between sensor 1 and sensor 2 is over 5°C, it will alarm with sound “bi-bi-biii”.

Power-On Delay(P7): (Example) if set P7 to 1 min, outlets won’t turn on until 1 min countdown since last power off.

How to Calibrate Temperature?
Soak the probes fully into the ice-water mixture, the actual temperature should be 0°C/32°F, if the reading temperature are not, offset(+-) the difference in Setting - C1/C2, save and exit.

9. Support and Warranty

Pymeter products are provided Lifetime Warranty and Technical Support.

Any question/issue, please feel free to contact us any time on www.pymeter.com or Email support@pymeter.com.

User Manual PDF

LiveChat Support