

# psensor

Christian Külker

2024-02-11

## Contents

<b>1 Introduction</b> . . . . .	<b>1</b>
<b>2 Installation</b> . . . . .	<b>2</b>
<b>3 Configuration</b> . . . . .	<b>2</b>
<b>4 LM-Sensors</b> . . . . .	<b>2</b>
4.1 Comparison . . . . .	2
<b>5 Critique</b> . . . . .	<b>3</b>
<b>6 Links</b> . . . . .	<b>4</b>
<b>7 History</b> . . . . .	<b>4</b>
<b>8 Disclaimer of Warranty</b> . . . . .	<b>5</b>
<b>9 Limitation of Liability</b> . . . . .	<b>5</b>

## 1 Introduction

The psensor package is a graphical user interface for sensors that monitor the system from the desktop. It is not intended for automatic monitoring without configuration. And while it is possible to configure a log file, the primary purpose is to monitor a given system live. For example, to understand under what conditions it crashes: to see temperature or power curves.

## 2 Installation

On Debian 12 Bookworm, the package manager can be used to install the psensor package.

```
aptitude install psensor
```

## 3 Configuration

Since this is a GUI, the best way to configure it is to start the tool and click on `Psensor->Preferences` and/or `Psensor->Sensor Preferences`. Basically `Sensor Preferences` is a subdialog of the `Preferences` dialog. Even without much effort, this tool can be useful by enabling only one sensor, set a temperature in degrees Celsius and enable the desktop alarm.

An advanced option is to configure a script to be executed in case of an alarm.

## 4 LM-Sensors

While psensor basically uses lm-sensors to read system sensors, there are some minor differences. First, not all lm-sensors are present, second, sensors from other sources like `NVIDIA GPUs` and hard disk monitoring are also included. So in that sense it can actually be more useful.

### 4.1 Comparison

System	LM Sensors	psensor
fam15h_power-pci-00c4	power1: 46.59 W	
k10temp-pci-00c3	temp1: +30.4°C	+30°C
it8721-isa-0290	in0: 2.80 V	
	in1: 2.80 V	
	in2: 828.00 mV	
	+3.3V: 3.29 V	
	in4: 792.00 mV	
	in5: 2.53 V	
	in6: 204.00 mV	

System	LM Sensors	psensor
	3VSB: 72.00 mV	
	Vbat: 3.29 V	
	fan1: 1839 RPM	1839 RPM
	fan2: 844 RPM	844 RPM
	fan3: 0 RPM	0 RPM
	temp1: +46.0°C	+46°C
	temp2: +30.0°C	+30°C
	temp3: -128.0°C	-128°C
	intrusion0: OK	
GeForce GTX 7500 Ti		
temp		39°C
graphics		4%
video		0%
memory		5%
PCIe		0%
fan rpm		905RPM
fan level		32%
CPU usage		21%
free memory		74%
SAMSUNG SSD		33°C

## 5 Critique

- The graph is updated every 2 seconds, which is sufficient, but the x-axis and y-axis are not well labeled, as only the minimum and maximum values are displayed.
- The power readings, such as `power 1` from `lm-sensors`, are missing. Usually power readings are not critical. But sometimes they are. And to understand why a system shuts down, it is sometimes important to monitor the power.
- The manufacturer-provided thresholds available in `lm-sensors` are not propagated to `psensor`. And while it is easily possible to open `lm-sensors` to configure `psensor`, it is a missed opportunity. However, sometimes these values provided by firmware

engineers are incorrect, so the fact that psensor does not automatically set these values is correct.

See example output from lm-sensors:

```
am15h_power-pci-00c4
Adapter: PCI adapter
power1:      49.02 W (crit = 95.06 W)

k10temp-pci-00c3
Adapter: PCI adapter
temp1:      +28.4°C (high = +70.0°C)
             (crit = +90.0°C, hyst = +87.0°C)

it8721-isa-0290
Adapter: ISA adapter
in0:        2.80 V (min = +1.76 V, max = +0.36 V) ALARM
in1:        2.80 V (min = +0.38 V, max = +1.80 V) ALARM
in2:        828.00 mV (min = +0.82 V, max = +1.74 V)
+3.3V:      3.29 V (min = +1.99 V, max = +0.10 V) ALARM
in4:        792.00 mV (min = +0.01 V, max = +0.02 V) ALARM
in5:        2.53 V (min = +2.23 V, max = +0.82 V) ALARM
in6:        204.00 mV (min = +0.13 V, max = +0.82 V)
3VSB:       72.00 mV (min = +1.66 V, max = +2.35 V) ALARM
Vbat:       3.29 V
fan1:       1814 RPM (min = 142 RPM)
fan2:       834 RPM (min = 12 RPM)
fan3:       0 RPM (min = 37 RPM) ALARM
temp1:      +45.0°C (low = +64.0°C, high = +83.0°C) sensor = thermistor
temp2:      +30.0°C (low = +120.0°C, high = +12.0°C) ALARM sensor =
↳ thermistor
temp3:      -128.0°C (low = -38.0°C, high = -119.0°C) sensor = disabled
intrusion0: OK
```

## 6 Links

- Home page: <http://wpitchoune.net/psensor/>
- Source: <https://gitlab.com/jeanfi/psensor/tree/master>
- FAQ: <http://wpitchoune.net/psensor/faq.html>

## 7 History

---

Version	Date	Notes
0.1.1	2024-02-11	Add links
0.1.0	2024-02-10	Initial release

---

## 8 Disclaimer of Warranty

THERE IS NO WARRANTY FOR THIS INFORMATION, DOCUMENTS AND PROGRAMS, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE INFORMATION, DOCUMENT OR THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE INFORMATION, DOCUMENTS AND PROGRAMS IS WITH YOU. SHOULD THE INFORMATION, DOCUMENTS OR PROGRAMS PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

## 9 Limitation of Liability

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE INFORMATION, DOCUMENTS OR PROGRAMS AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE INFORMATION, DOCUMENTS OR PROGRAMS (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE INFORMATION, DOCUMENTS OR PROGRAMS TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.