

Product information

► Electronic devices

Converter for Pt-sensors as KTY-alternative

Type: CONV SUB

Pt / KTY-Converter



Plug & Play solution for the encoder signal wire according to Siemens standard 6FX (green wire) with the SUB-D 25 pin connector. It is compatible with the following Siemens inverter systems and components:

- **Sinamics**
- **Simodrive**
- **Masterdrives**
- **SMC20**

- Basic information

The converter evaluates the resistance of a Pt sensor and provides the corresponding resistance of a KTY sensor. It can replace for the discontinued KTY84 sensor in all electrical equipment.

- Application

Connecting motors and generators with Pt sensors to control units expecting KTY sensors at the input

- General function

The converter evaluates the resistance of a Pt sensor and provides the corresponding resistance of a KTY sensor. There is no necessity to replace a full functional inverter or other control unit when a device with Pt output has to be connected. Newer Spare parts without KTY Sensors can easily connected to older control units.

- Advantage

No need to change a control unit when replacing a motor.

Connecting devices with different sensors to one control unit is possible.

Spare parts with Pt-sensors can be used in older systems.

Independence from KTY availability

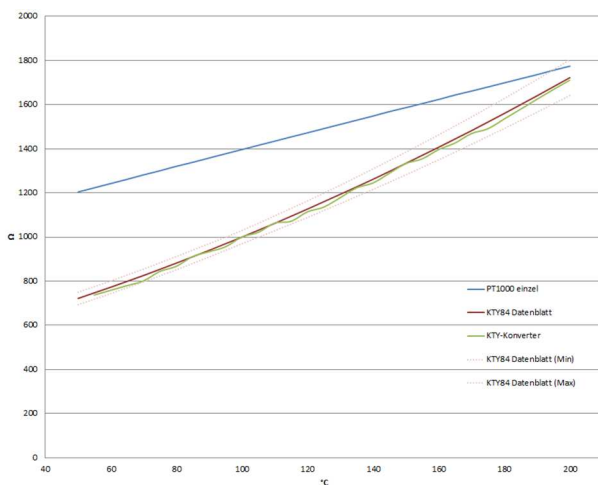
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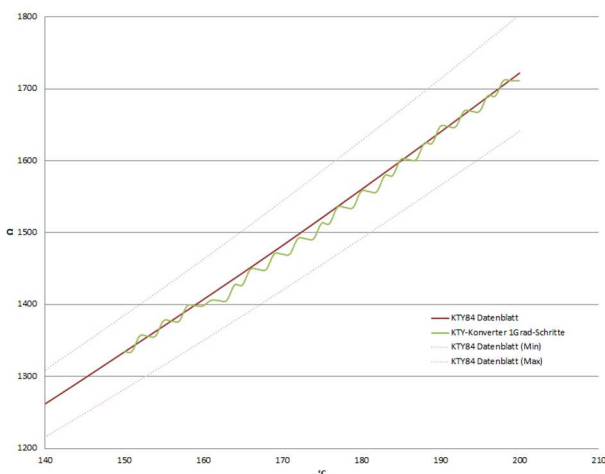
Comparison between Pt1000, KTY84-130 and Pt1000-converter



- Comparison between Pt1000, KTY84-130 and Pt1000-converter

- Pt1000 class B (blue)
- KTY84-130, values (red) from the original NXP datasheet, including the tolerance (red dots)
- Pt1000-converter (green) output

Comparison between KTY84-130 and Pt1000-Converter (1°C steps)



- Comparison between KTY84-130 and Pt1000-Converter

- Detailed view of Pt1000-converter signal, and the curve of the KTY84-130 sensor.
- The ripple of the Pt1000-converter signal (green) is caused by the resolution of the internal digital potentiometer.

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Electrical data:

Input: 1 sensor
Pt100 or Pt1000

Output: KTY84-xx

Power supply:
5V: 4,5 Vdc – 5,5 Vdc

Power supply tapped from pin 1(+) and pin 2(-) (internal 5Vdc system).

Power consumption: < 500mW
Ambient temperature: 0 ... 60°C
Storage temperature: -40°C ... +75°C
Temperature measurement range: 0°C ... +270°C

Sensor INPUT (Pt):

Typ. sensor current: <1mA
Pins: 13 (Temp +) / 25 (Temp -)

Sensor OUTPUT (KTY):

Max. sensor current: 10mA
Pins: 13 (Temp +) / 25 (Temp -)

Mechanical data:

Housing: Aluminum

Dimension: length x width x height
76mm x 60mm x 18 mm



Fixation: Hexagonal jack screws 4-40 UNC

Protection class: IP 20

Input: D-SUB 25 male

Output: D-SUB 25 female

RDT input and output of the converter on pin 13 (Temp+) and 25 (Temp-). All other contacts looped trough.

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-Order code

Name	Voltage	Sensor IN	Sensor OUT	Dimension	Part number
CONV-SUB-Pt1000-KTY84	5V DC	Pt1000	KTY 84-130	76*60*18 mm	005869

Other KTY sensors on demand.

Responsibility:

The statements concerning our products are based upon our current technical knowledge and application technological experience. Liability shall be accepted in the context of the individual contract according to our delivery- and sales conditions. The user is not released to check our information and recommendations before using the product. In the course of our product development, we reserve the right to make technical changes.