

PT100 / PT1000 Measuring Transducer

PT1

Characteristics:

- Universal 2- /3- /4 –wire technique
- Linearity error < 0,1%, -50°C to +500°C
- Temperature range -200°C to +850°C possible
- Analog measuring rate, reaction time < 0,5ms
- Internal sensor fed
- Current or voltage output
- (Optional) zero point and measuring range free adjustable
- Supply 24VDC
- Mountable on 35mm cap rail TS35
- Clear terminal labeling
- Narrow design
- Shape 17,5mm
- PB - Power-Bus compatible
- High reliability, 5 years warranty



Description:

The devices of the series PT1 measuring transducers have been developed for proportional converting of Pt100 or Pt1000 signals into temperature-linearized outputs of 0/4...20mA or 0...10V. The series PT1 has a 2-way galvanic separation between input/output and auxiliary power.

Because of its simple construction it is not necessary to configure this unit complicated. **The modules are delivered with a fixed in- and output configuration. This avoids problems during the startup.** Should it be necessary to level the zero point or the amplification to the used operator system, there is each a potentiometer for the fine adjustment at disposal.

Application:

MSR-technology, Process technology

Linearized signal converting proportional to temperature.

Order-No.:

Input:	PT1-	Output:	Temperature range in wording:
Pt100	1	0...10V	1 ... °C to ... °C
Pt1000	2	0...20mA	2
		4...20mA	3

Order example:

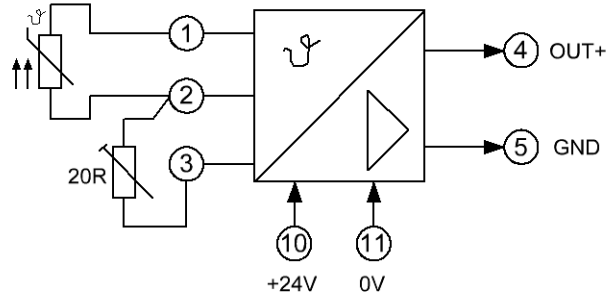
Transducer PT1:

Sensor: Pt100

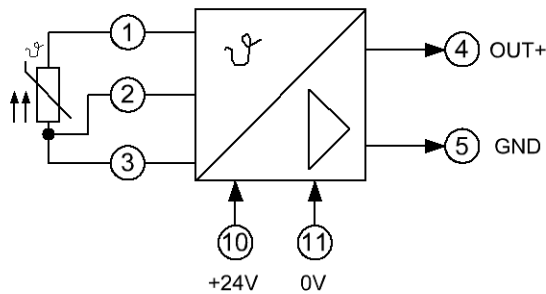
Temperature range: 0°C to 300°C / Output = 4...20mA

Order No.: PT1-1-3-0-300°C

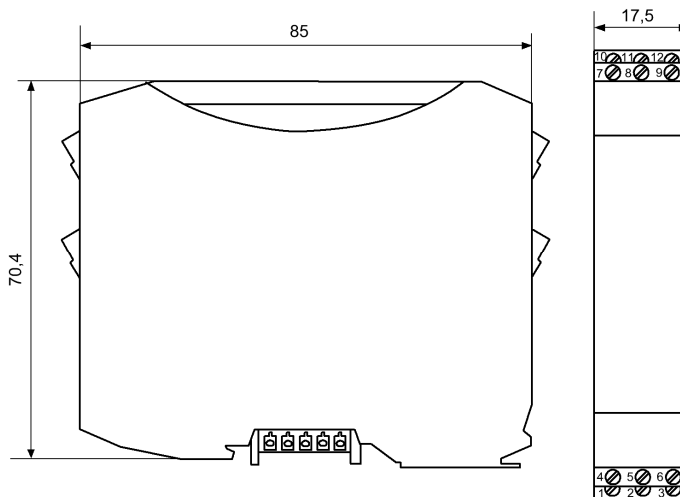
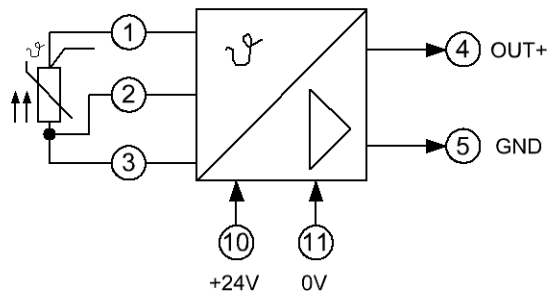
Anschluss für 2-Leiter Technik



Anschluss für 3-Leiter Technik



Anschluss für 4-Leiter Technik



Technical Data

Auxiliary power:

Supply voltage : 19, 2...30VDC
Current consumption : < 1,5VA

Inputs:

Temperature sensor : Pt100 or Pt1000
Measuring current : Ca. 0,8mA
Measuring range : Adjustable $\pm 20\%$ (optional)

Outputs:

Voltage output : 0...10V / max. 20mA
Current output : (4)...20mA / load resistor 500 Ω
Burden error : < 0, 1%
Output : Adjustable $\pm 20\%$ (optional)
Short-circuit proof

Accuracy:

Linearity error : < 0, 1%, -50°C...500°C, otherwise < 0, 5%
Temperature coefficient: < 0, 01 % / K

General data:

Operating temperature : 0...50°C
Storage temperature : -25...+85°C, condensation before putting into operation is not allowed
CE conformity : EN 61326-1, EN 61000-4-2/3*/4/5/6*, EN 61000-6-4
* during measurements small deviations are possible

Body:

Dimension : Cf. drawing, 17,5mm adjoin body, 17,5x114,5x104,5mm (with terminals)
Material : PA / V0
Protection category : IP20
Connection : M3-screw-type terminal 0, 14 - 2,5mm², flexible or inflexible
Fixing : Snap-on mounting for norm rail TS35
Weight : 67g

Note on safety:



Disconnect the power supply before attempting to open the unit.

During the operation of this module it is possible that parts of the module, even there is extra-low voltage, (for example shunt measurement) are under dangerous voltage! Therefore a non-observance of this caution may cause damage of property or physical injury.

Only trained qualified personnel should install or operate the unit. Before installation the qualified personnel should read the documentation and should familiarize themselves with the unit.

If there is visible damage to the body of the unit it should be immediately replaced and not put into operation.



Please ensure that there is a sufficient prevention against electrostatic discharge during installation of the unit.

Installation Information:

Pay attention and make sure the unit is far away from mounted sources that may disturb the device such as magnetic coils, transformers, frequency converters etc.

Wiring advice:

Use only shielded cables. The shield is to be connected extensively to ground. Do not mix power- and signal-wires/cables in the same cable tray.

Limited warranty:

The LEG Industrie-Elektronik GmbH warranted that the product does not have any material or processing defects in a period of 5 years after date of delivery.

It is up to the choice of LEG to repair or to exchange an inoperative unit.

Subsequent damages or any claim for indemnification above the functionality of the unit are excluded.

This limited warranty is only valid if ...

1. the product was installed and put into operation according to the LEG operation documentation;
2. the technical configuration of the power supply was abided;
3. the product was not used for unintended purposes;
4. there were no unauthorized modifications or manipulations, misuse or repairs without previous agreement from LEG .

Our Terms of Trade are based on the "General Conditions for the supply of products and services of the Electrical and Electronics Industry" including the "Complementary Clause: Extended Reservation of Property" of the ZVEI e.V. (German Association of Electrical Manufacturers).

Miscellaneous:

We expressly reserve the right, without previous notice, to correct errors contained in any data of this information brochure, and to make alterations to the program and technical modifications.