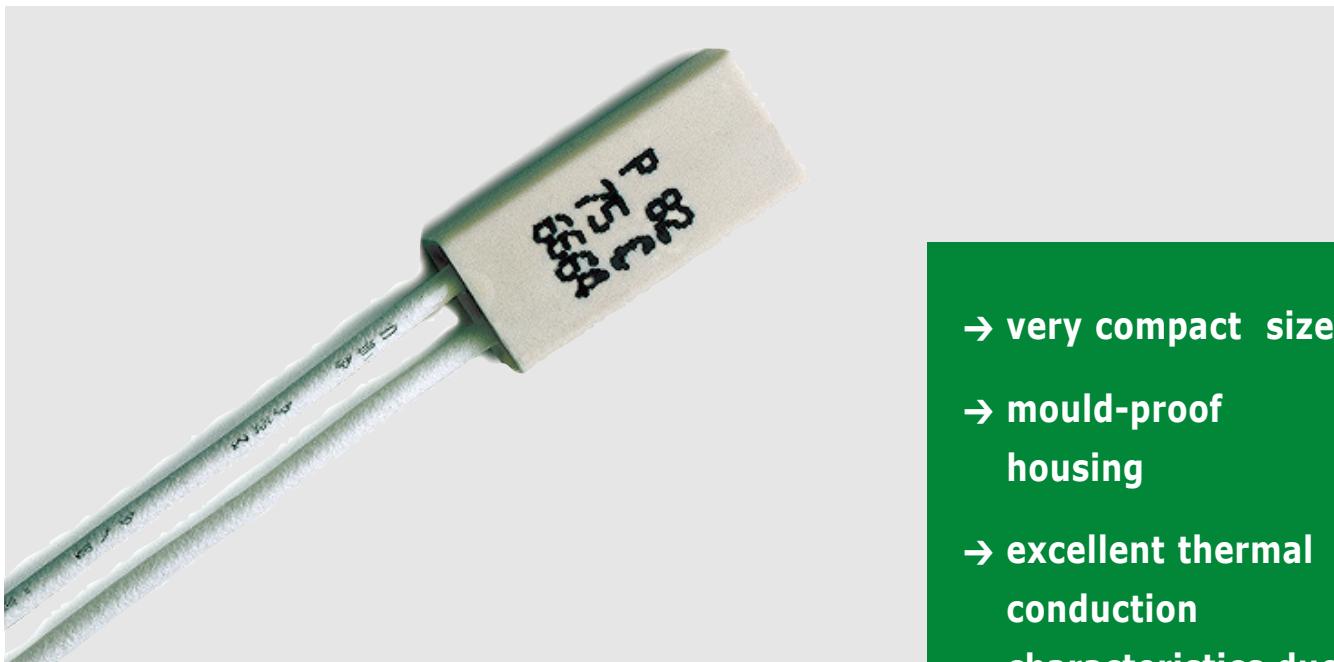


# Temperature detector P



## Area of Application

The temperature detector P is used wherever protection against overtemperature is required. Specific applications include: protection of primary windings in transformers, winding protection in small electric motors, and general temperature protection of small electric equipments.

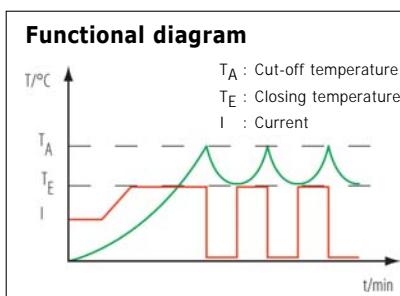
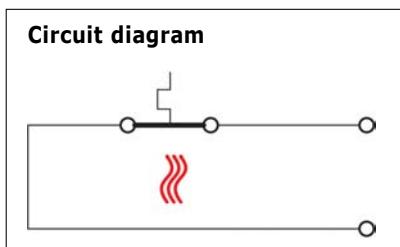
## Function

The temperature detector P operates independent from any current supply. Temperature detection is effected by means of a bimetal disk which was first dimensioned in accordance with the required cut-off temperature  $T_A$ . When this fixed cut-off temperature  $T_A$  is reached, this bimetal disk will snap over, breaking a contact

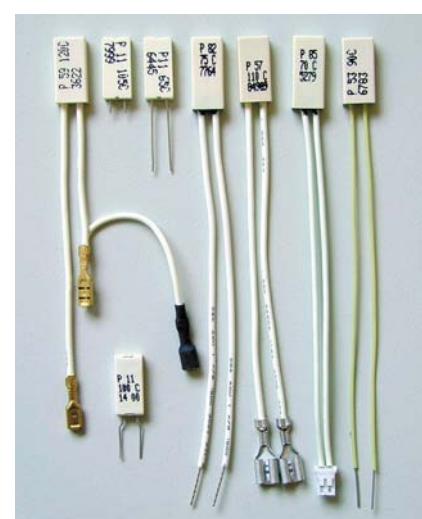
system and thereby interrupting the electric circuit of the device to be protected.

After cooling down and reaching the closing temperature  $T_E$ , the bimetal disk will automatically return into its original position and thus make the contact. The electric circuit is closed again.

- very compact size
- mould-proof housing
- excellent thermal conduction characteristics due to homogenous constructional size
- good temperature sensitivity
- fast response time



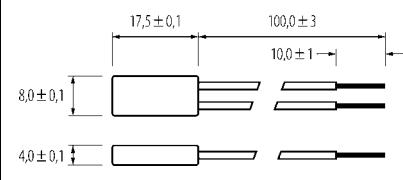
## Configuration examples



# Technical Specifications Temperature detector P

<b>Breaking capacity:</b>	250 V; 2,5 (1,6) A / 50 Hz
<b>Min. current:</b>	20 mA
<b>Switching temperature:</b>	40°C – 150°C, (±5 or ±10), in 5 Kelvin steps
<b>Max. breaking capacity:</b>	2,5 A cos $\Phi$ 1,00 / 250 V, 150°C, 10000 cycles 4,0 A cos $\Phi$ 0,45 / 250 V, 135°C, 2000 cycles
<b>Switching differential:</b>	10 K ... 60 K depending on the cut-off temperature
<b>Type of action:</b>	2.B (max. drift ± 5 K)
<b>max. ambient temperature:</b>	160°C / 200°C, 1 minute
<b>Approvals:</b>	VDE (EN 60730) UL 2111, conform to RoHS

## Dimensions P8



alternativ:

P5 housing type:

**L** 4,0 x **W** 8,0 x **H** 16,0

P1 housing type:

**L** 3,5 x **W** 7,0 x **H** 15,0

## Technical Data

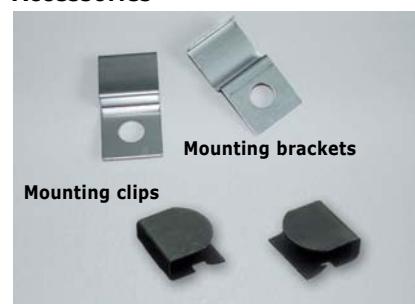
The housing of this switch consists of a single part bag housing which is closed at its end by resin (P8 housing type); this makes the switch mould-proof. This mould-proof switch may thus also be used in "tough" environments subject to the detrimental influences of humidity or dirt. Alternative housing types: unsealed version (P5) or plate bar version (P1). All housing types are voltage-free. Due to its constructional size the P switch is one of the most compact thermostats available. This ensures a very fast response rate.

Its rectangular homogenous constructional size provides excellent thermal conduction characteristics. The housing is resistant against temperatures (permanent temperature: 160°C), with a temporary increase in temperature up to 200°C max. being permissible for a short period only.

The standard version is equipped with 100 mm long (length of stripped isolation: 10 mm) insulated leads or wire connection (AWG 24).

Special leads or wire (larger diameter to AWG 22) or different lengths available on request.

## Accessories

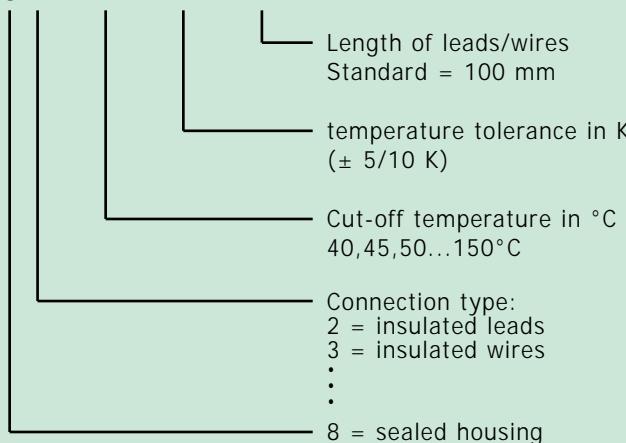


**Mounting brackets**

**Mounting clips**

## Type reference P switch (temperature detector with automatic reset function)

### P 8 X - XXX - XX - XXX



Example for type reference:

**P 8 2 - 125 - 05 - 100**

temperature detector

insulated lead (standard AWG 24)

125°C cut-off temperature

tolerance ±5 K

100 mm lead length  
(10 mm stripped length)