PR25 passive | PR25+ passive

Contact temperature sensor

thermokon®
HOME OF SENSOR TECHNOLOGY

Datasheet

Subject to technical alteration
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»APPLICATION

Contact temperature sensor for measuring temperature on pipes and arched surfaces. Designed for control and monitoring systems.

»TYPES AVAILABLE

Contact temperature sensor – passive

- PR25 <sensor>

Contact temperature sensor – passive optional with connection housing (Enclosure USE-S)

- PR25+ <sensor>

»SECURITY ADVICE – CAUTION

The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

»PRODUCT TESTING AND CERTIFICATION

Declaration of conformity
The declaration of conformity of the products are available on our website
https://www.thermokon.de/direct/en-gb/categories/pr25

»NOTES ON DISPOSAL

The crossed-out wheelie bin symbol indicates that the product or removable batteries must not be disposed of with household or commercial waste. Within the EU, you are legally obliged to dispose of the product separately and appropriately in accordance with the national laws of your country. Alternatively, please contact your supplier or Thermokon Sensortechnik GmbH. Further information can be found at: www.thermokon.com

» GENERAL REMARKS CONCERNING SENSORS

Especially with regard to passive sensors in 2-wire conductor versions, the wire resistance of the supply wire has to be considered. If necessary the wire resistance has to be compensated by the follow-up electronics. Due to self-heating, the wire current affects the measurement accuracy, so it should not exceed 1 mA.

When using lengthy connection wires (depending on the cross section used) the measuring result might be falsified due to a voltage drop at the common GND-wire (caused by the voltage current and the line resistance). In this case, 2 GND-wires must be wired to the sensor - one for supply voltage and one for the measuring current.

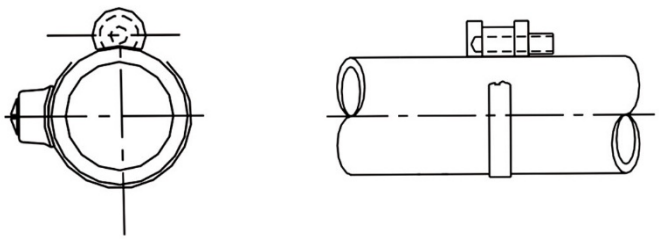
Sensing devices with a transducer should always be operated in the middle of the measuring range to avoid deviations at the measuring end points. The ambient temperature of the transducer electronics should be kept constant. The transducers must be operated at a constant supply voltage (±0,2 V). When switching the supply voltage on/off, onsite power surges must be avoided.

» TECHNICAL DATA

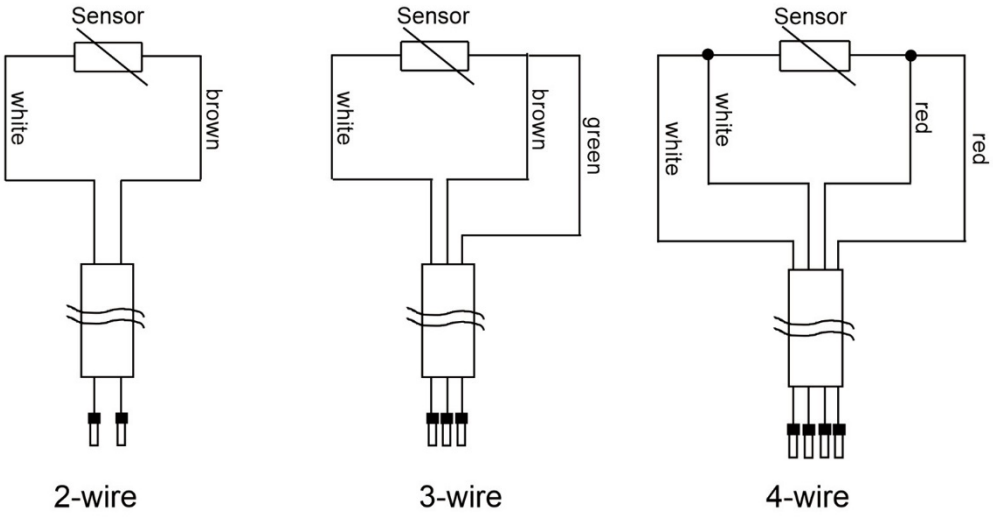
Measuring values	temperature
Output passive	PT100 | PT100 1/3 DIN | PT1000 | PT1000 1/3 DIN | Ni1000 | Ni1000TK5000, NTC10k | NTC 10k Precon | NTC5k | NTC20k | NTC1,8k
Measuring range temperature	-35..+100 °C optional: PT / Ni: -50..+180 °C (T180) NTC / KTY: -50..+150 °C (T150) LM235Z: -50..+120 °C (T120)
Operating temperature range **max. permissible working temperature*	-35..+100 °C, optional: -50..+180 | +150 | +120 °C, depending on used sensor
Accuracy temperature	depending on length of connection wire, depending on used sensor
Sensor	2-wire (standard), 3-wire or 4-wire
Enclosure *(optional)*	**PR25+ passiv** USE-S housing, PC, pure white, IP65 according to DIN EN 60529, cable entry Flextherm M20 for cable with Ø=4.5..9 mm
Protection	IP65 according to EN 60529, SI-Protection
Pocket	aluminium, Ø=11 mm, mounting length 28 mm
Ambient condition	max. 85% rH short term condensation
Notes	other sensors and cable lengths on request

» MOUNTING ADVICES

Fixing is done by tightening strap. Use contact fluid for better heat transfer between sensor and measuring medium. To avoid permeation of condensate, mount the sensor on top of the tube, if possible.



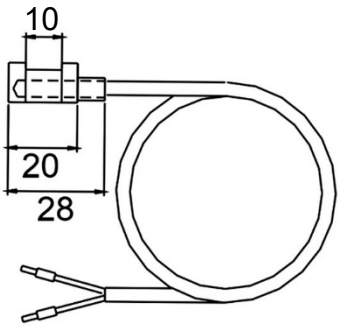
» CONNECTION PLAN



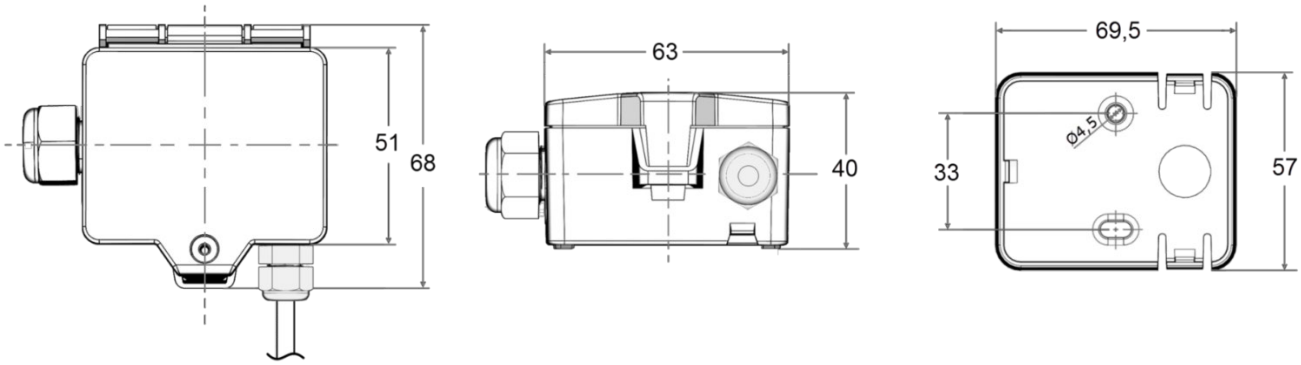
Caution
With electronic sensors e.g. AD592, SMT160, LM235, DS1820 use: brown= plus (+), white= minus (-) , green=out

» DIMENSIONS (MM)





Connection housing USE-S optional (Type PR25+ passive)



» ACCESSORIES (OPTIONAL)

Tension clamp for pipes Ø up to 110 mm with contact fluid	Item No. 658911
Tension clamp for pipes Ø up to 250 mm with contact fluid	Item No. 648103
Tightening strap PA for pipes Ø up to 100 mm with contact fluid	Item No. 668071
Conduit Adapter for M20x1,5	Item No. 834834