

NOVOS 3 x passive

Room operating unit temperature passive

thermokon[®]
HOME OF SENSOR TECHNOLOGY

Datasheet

Subject to technical alteration
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novos



*with design cover (left), standard design w/o design cover (right)

» APPLICATION

Room operating unit with recording room temperature (optional). The sensor creates the conditions for a pleasant indoor climate and well-being. Typical applications are schools, office buildings, hotels, cinemas or similar.

» TYPES AVAILABLE

Room operating unit with optional temperature – passive

NOVOS 3 P <Sensor>



NOVOS 3 TD <Sensor>



NOVOS 3 PTD <Sensor>



Optional: <Sensor> PT100/PT1000/Ni1000/Ni1000TK5000/NTC10K...other sensors on request,
<Potentiometer> optional active potentiometer (0-10V)

» PRODUCT TESTING AND CERTIFICATION



Declaration of conformity

The declaration of conformity of the products can be found on our website <https://www.thermokon.de/>

» 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

» MOUNTING ADVISE ROOM SENSORS

The Accuracy of the room sensors are influenced by the technical specifications as well as the positioning and the installation type.

During Assembly:

- Seal mounting box (if present).
- Installation type, air draught, heat source, radiation heat or direct sunlight can affect the measurement.
- Building material specific properties of the installation place (*brick-, concrete-, partition wall, cavity wall, ...*) can affect the measurement. (e.g.: *Concrete accepts room temperature variation slower than cavity walls*)

Assembly not recommendet in...

- Air draught (e.g.: close to windows / doors / fans ...)
- Near heating sources,
- Direct sunlight
- Niches / between furniture / ...

» TECHNICAL DATA

Measuring values	temperature			
Output passive (optional)	PT100 PT100 1/3 DIN PT1000 PT1000 1/3 DIN Ni1000 Ni1000TK5000, NTC10k			
Measuring range temperature	-35..+70 °C			
Accuracy temperature See „Information passive sensors“ (Link)	PT100 PT1000 ±0,3 K (typ. at 0°C, Kl.B)	Ni1000 ±0,4 K (typ. at 0 °C)	Ni1000TK5000 ±0,4 K (typ. at 0 °C)	NTC 10K ±0,22 K (typ. at 25 °C)
Set point (P)	potentiometer, 3-wire connection, default value 10 kΩ (for other values please request), nominal load 0,25 W, active output 0..10 V (optional) ¹			
Button (T)	for presence detection, with LED (TD), switching capacity max. 0,6 W (24 V=)			
LED (D)	for status feedback, color can be set via jumpers (from 7 colours)			
Sensor	2-wire, optional 4-wire			
Enclosure	PC V0, pure white, design cover (optional)			
Protection	IP20 according to DIN EN 60529			
Cable entry	rear entry, breaking points bottom, drill mark top			
Connection electrical	tool-free mountable spring terminal, max. 1,5 mm ²			
Ambient condition	-35..+70 °C, max. 85% non-condensing			
Mounting	surface mounted on flush-mounting box (Ø=60 mm) or to be mounted flat onto the surface using screws, base part can be mounted and wired separately			
Notes	other temperature sensors on request			

¹ Passive variant with active potentiometer (power supply 15..24 V=): The self-heating results in a deviation of the actually measured value. Therefore, it is necessary to compensate the actual deviation of the passive sensor in the BMS with an offset.

» NOTES ON DISPOSAL



As a component of a large-scale fixed installation, Thermokon products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

» CONNECTION PLAN

Room temperature sensor- passive

NOVOS 3 P <sensor>

|S- ——— passive sensor
 |S+ ——— passive sensor
 |P2 ——— S
 |GND — 0 V ⊥
 |P1/UB+— A

P1/UB+: pay attention to the nominal load of the passive potentiometer of 0,25 W

Button wiring (set via jumper)

Connection to GND (factory default)	Connection to UB+
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NOVOS 3 TD <sensor>

|S- ——— passive sensor
 |S+ ——— passive sensor
 |D ——— diode | 24 V =
 |T ——— button (to GND)
 |GND — 0 V ⊥

NOVOS 3 TD <sensor>

|S- ——— passive sensor
 |S+ ——— passive sensor
 |D ——— diode | 24 V =
 |T ——— button (to UB+)
 |GND — 0 V ⊥
 |UB+ — button | 24 V =

NOVOS 3 PTD <sensor>

|S- ——— passive sensor
 |S+ ——— passive sensor
 |D ——— diode | 24 V =
 |T ——— button (to GND)
 |P2 — S
 |GND — 0 V ⊥
 |P1/UB+— Poti¹

¹ P1/UB+: passive potentiometer

NOVOS 3 PTD <sensor>

|S- ——— passive sensor
 |S+ ——— passive sensor
 |D ——— diode | 24 V =
 |T ——— button (to UB+)
 |P2 — S
 |GND — 0 V ⊥
 |P1/UB+— Poti¹



Always connect the device according to the wiring diagram in the device.

» CONFIGURATION (TYPE TD | PTD)

The jumper setting will select the color of the LED and the control of the button

Factory default	Button connection				
<p> J1— LED J2— LED J3— LED J4— button J5— button </p> <p>LED Colour: white</p> <p>Button connection: GND</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%; background-color: #cccccc;">to GND (factory default)</th> <th style="width: 50%; background-color: #cccccc;">to UB+</th> </tr> <tr> <td style="text-align: center;"> <p> J4— button</p> </td> <td style="text-align: center;"> <p> J4— button</p> <p> J5— button</p> </td> </tr> </table>	to GND (factory default)	to UB+	<p> J4— button</p>	<p> J4— button</p> <p> J5— button</p>
to GND (factory default)	to UB+				
<p> J4— button</p>	<p> J4— button</p> <p> J5— button</p>				

RGB LED

red	green	blue	yellow	magenta	tuquoise	white (factory default)

» MOUNTING ADVICES

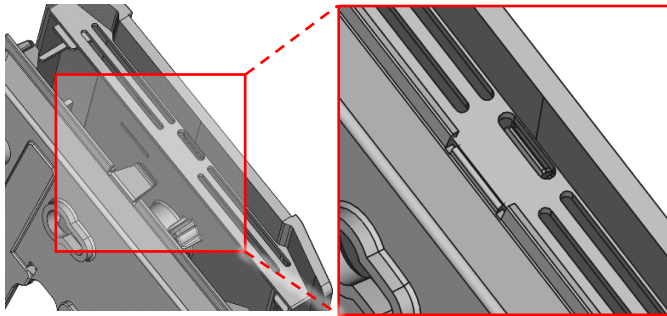
Please make sure that the device is de-energized if you want to install it!

The installation can be performed on the flat wall surface or on a flush-mounted box. A representative place should be selected. Sunshine and draft, e.g. in the installation tube should be avoided, so that the measurement result is not falsified. Seal the end of the installation tube.

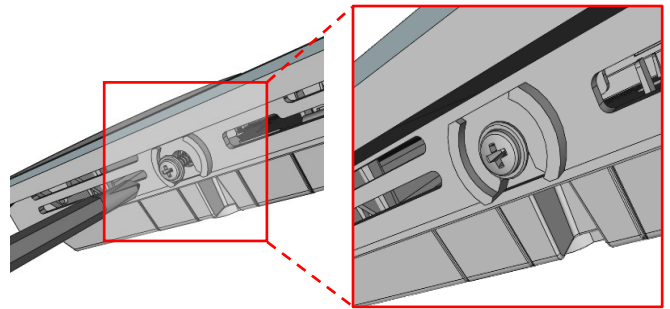
- For wiring, the upper part of the device must be removed from the base plate. Base plate and upper part are detachably connected to each other by means of locking lugs.
- The mounting of the base plate on the flat wall surface is done with rawplugs and screws.
- Finally, the device is attached to the base plate and fixed with the screw.

Housing open / close

Snap the upper part of the housing into the locking lug on the upper side

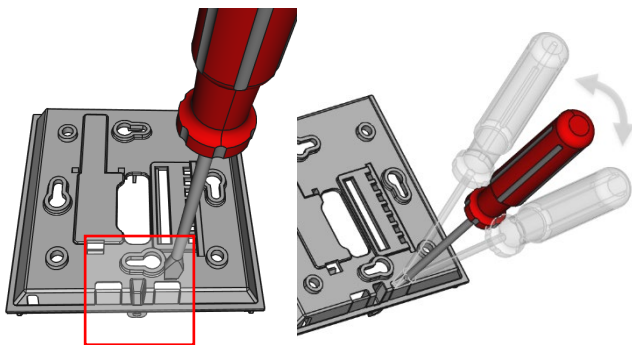


Fix the upper part of the housing on the underside with the screw included in the delivery.

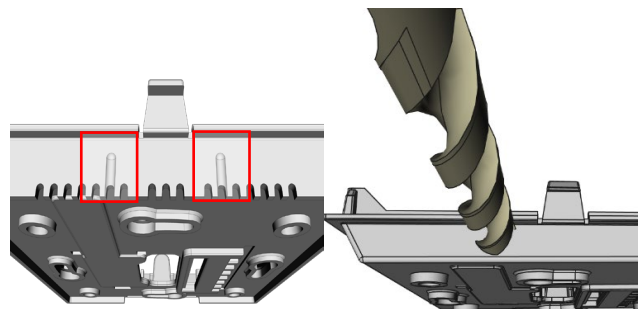


Cable entry

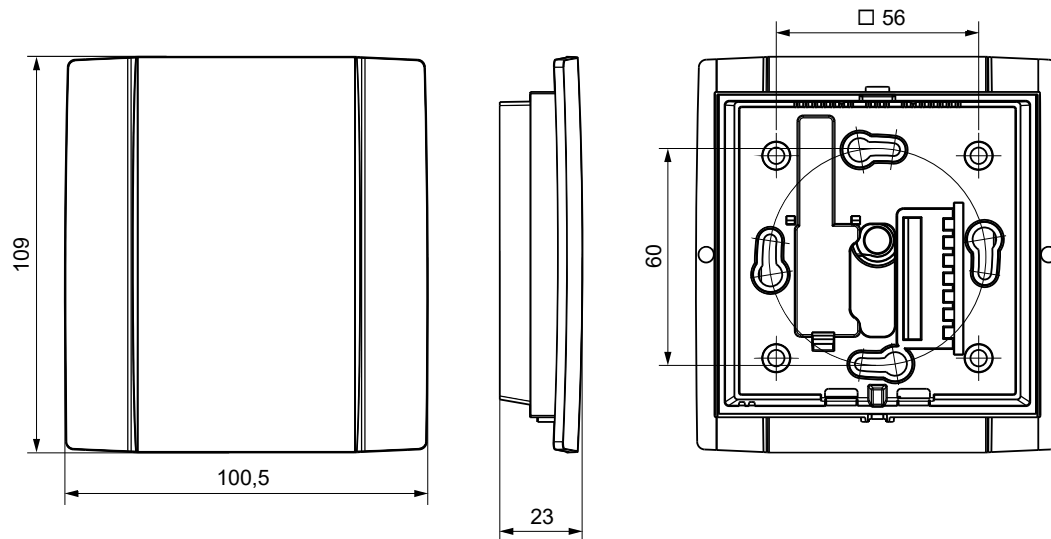
There are predetermined breaking points for 2 optional cable entries on the underside of the base plate



On the upper side of the base plate there are 2 grits as position for a drill hole max. Ø 6 mm



When using a drill, you should absolutely ensure that the base plate is firmly clamped. Before drilling, the pressure must be reduced and carefully drilled. A sudden break-through of the drill bit can be the result.

» DIMENSIONS (MM)**» ACCESSORIES (OPTIONAL)**

Rawplugs and screws (2 pcs. each)

PSU-UP24 – flush mount power supply 24 V (AC Input: 100..240 V ~ | DC Output 24 V = 0,5 A)

Mounting bracket (surface mounted) white

Mounting bracket (surface mounted) black

Item No. 102209

Item No. 645737

Item No. 795050

Item No. 795074