

# TempMaxx

Flexible, electronic HVAC temperature transducer for external PT 100 / 1'000 / Ni 1'000 / NTC probes



### Connections PT /Ni / NTC probes :

Resistor temperature sensors DIN EN 60751

- **PT 100** (0,4 Ohm/K) -50 ... +400°C  
Connection : 2-, 3- or 4-wire technology  
Tolerance class : 1/3 B, A, B, 0.5
- **PT 1'000** (4,0 Ohm/K) -50 ... +400°C  
Connection : 2-, 3- or 4-wire technology  
Tolerance class : 1/3 B, A, B, 0.5

Resistor temperature elements DIN 43760

- **Ni 1'000** (5,5 Ohm/K) -50 ... +200°C  
Connection : 2-, 3- or 4-wire technology  
Tolerance class : 1/3 B, A, B, 0.5
- **NTC Beta Therm** (30 kOhm) -20...°80°C  
Connection : 2-wire technology  
Tolerance class : +/- 0.15K



### General information

The **TempMaxx** is an intelligent and very flexible instrument for the measurement of gaseous media (*fresh air*) as well as liquids. For that purpose all kind of temperature probes in 2-, 3- or 4-wire technology can be connected to the transmitter. Depending on application, measurement range and accuracy, different **PT 100 / 1'000, Ni 1'000** or **NTC** probes in various designs can be used.

These can be plunge sensors, surface-, air-, liquid-, outdoor-sensors etc..

The **TempMaxx** converts the resistor signal to a standardised voltage and current signal (*U & I*) and shows the value on a big, clear LCDisplay.

All probes can be adjusted individually and the analogue output signal can be scaled.

**Additional functions** such as **alarm** settings respectively definition of the working range and the possibility of a 2-point **control**, widen the field of applications. The necessitate digital output in the form of a **relay contact** is already integrated.

The easy settings by the intuitive instrument menu is another advantage of this versatile measurement device. All setting parameters can be protected by a password.

Thanks to the use of modern microprocessor technology and circuitry a **high measurement accuracy, long term stability and flexibility** is achieved.

The robust and ergonomic plastic housing provides ideal installation options.

**TempMaxx**, the instrument for accurate and flexible temperature measurement, monitoring and control. Made in Switzerland.

### Features

- High flexibility in connection of PT/ Ni / NTC probes
- High measurement accuracy and reproducibility
- Robust design
- Big, clear LCDisplay
- Calibration (1/2 points) for temperature and analogue outputs
- Intuitive menu structure
- Password protection system
- Easy mounting and start-up
- Alarm or 2-point control
- 2-,3-,4-wire connection by a Jumper

### Applications

Temperature measurement, control and monitoring

- Industrial climatic installations
- Clean room, laboratory applications
- Green houses and tunnels
- Agriculture
- Measurement in liquids
- Hospitals, sport facilities
- DDC-, PLC- or discrete control systems



## Technical data

Type	TempMaxx
Novasina article no.	<b>2600284</b>
Dimensions	183 x 110 x 50 mm
Measurement range temp. measurement PT/Ni 100	-50 ... +400°C      2-, 3- or 4-wire connection
Measurement range temp. measurement PT 1'000	-50 ... +400°C      2-, 3- or 4-wire connection
Measurement range temp. measurement Ni 1'000	-50 ... +200°C      2-, 3- or 4-wire connection
Measurement range temp. measurement Beta Therm	-20 ... +80°C      +/- 0.2 K      2-wire connection
Display resolution	0,1 °C / 0,1°F
Sensor break detection	YES (display) : at 2...10V and 4...20 mA = per 0 VAC / 0 mA
Repeatability temperature	depending on probe according to DIN EN 60751 AA, A, B, 1/3B, C
Operating temperature	electronics : -10...+50°C      sensor: according to spec. -50...+ 400°C
Power supply	18...35 VDC (24 VDC +/-25%) <i>without galvanic isolation</i> 50 ... 100 mA <i>depending on initial condition</i>
<b>Outputs</b>	<i>ranges can be scaled individually</i>
<b>Analogue</b> temperature	0 ... 10V, 2 ... 10V and 0 ... 20 mA, 4 ... 20 mA <i>U and I outputs are usable simultaneously</i>
<b>Digital</b> relay NO / NC	max. load 260 V / 2 A <i>ohmic only</i>
Accuracy	+/- 0,15 % FS <i>accuracy without sensor element over full measurement range</i>
Password protection	YES 4-digit code for all settings
<b>Special functions</b>	
Alarm function	<b>Alarm</b> : High, Low, Hysteresis, Delay, <b>NC</b> or <b>NO</b> (On/OFF)
2-point control function	<b>Controller</b> : <b>Setpoint</b> , <b>Hysteresis</b> , <b>Delay</b> , <b>NC</b> or <b>NO</b> (On/OFF)
<b>Norm tests / storage conditions</b>	
Electromagnetic compatibility	IEC 61000-6-2 / IEC 61000-6-4 / EN 61000-6-2 / EN 61000-6-4
IP-protection / CE-Norm	IP 41 / EN 61010-1
Storage temperature (device)	5 ... 60 °C <i>(not condensing)</i>
Storage air humidity (device)	5 ... 80% RH <i>(not condensing)</i>



### Temperature probes suitable for connection

Avg temp. sensor	PT 100/1'000
Climatic air probe	PT 100/1'000 / Ni 1'000 / NTC
Surface probe	PT 100/1'000 / Ni 1'000 / NTC
Immersion probe	PT 100/1'000 / Ni 1'000
Outdoor probe	PT 100/1'000 / Ni 1'000 / NTC
Hand probe	PT 100/1'000 / Ni 1'000 / NTC
Screwed probe	PT 100/1'000
Cable probe	PT 100/1'000 / Ni 1'000 / NTC
Core probe	PT 100/1'000 / Ni 1'000
Pipe mounted sensor	PT 100/1'000 / Ni 1'000

### Accessories + Spare parts

	Article no.
Housing bottom	<b>2523135</b>
Connector set TempMaxx 4 pcs	<b>2600303</b>
NTC sensor element only (air temp.)	<b>111 7688</b>
Surface probe PT 100	<b>local</b>
Immersion probe Ni 1'000	<b>local</b>
Avg temp. sensor PT 100 (air temp.)	<b>local</b>



TempMaxx dimensions

Example :

Immersion probe for liquids  
PT 100 / 1'000, Ni 1'000



Example :

Air/liquid surface temp. probe  
PT 100 / 1'000, Ni 1'000



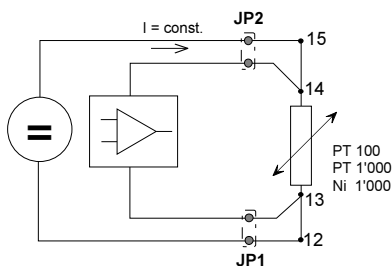
Example :

Outdoor temperature probe  
PT 100 / 1'000, Ni 1'000

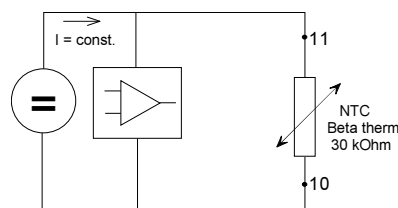


Example :

Average temperature sensor  
PT 100 / PT 1'000



2-, 3- or 4-wire connection



2-wire NTC connection

*Subject to change without notice!*