# novasina

# Catalogue Climate 2020

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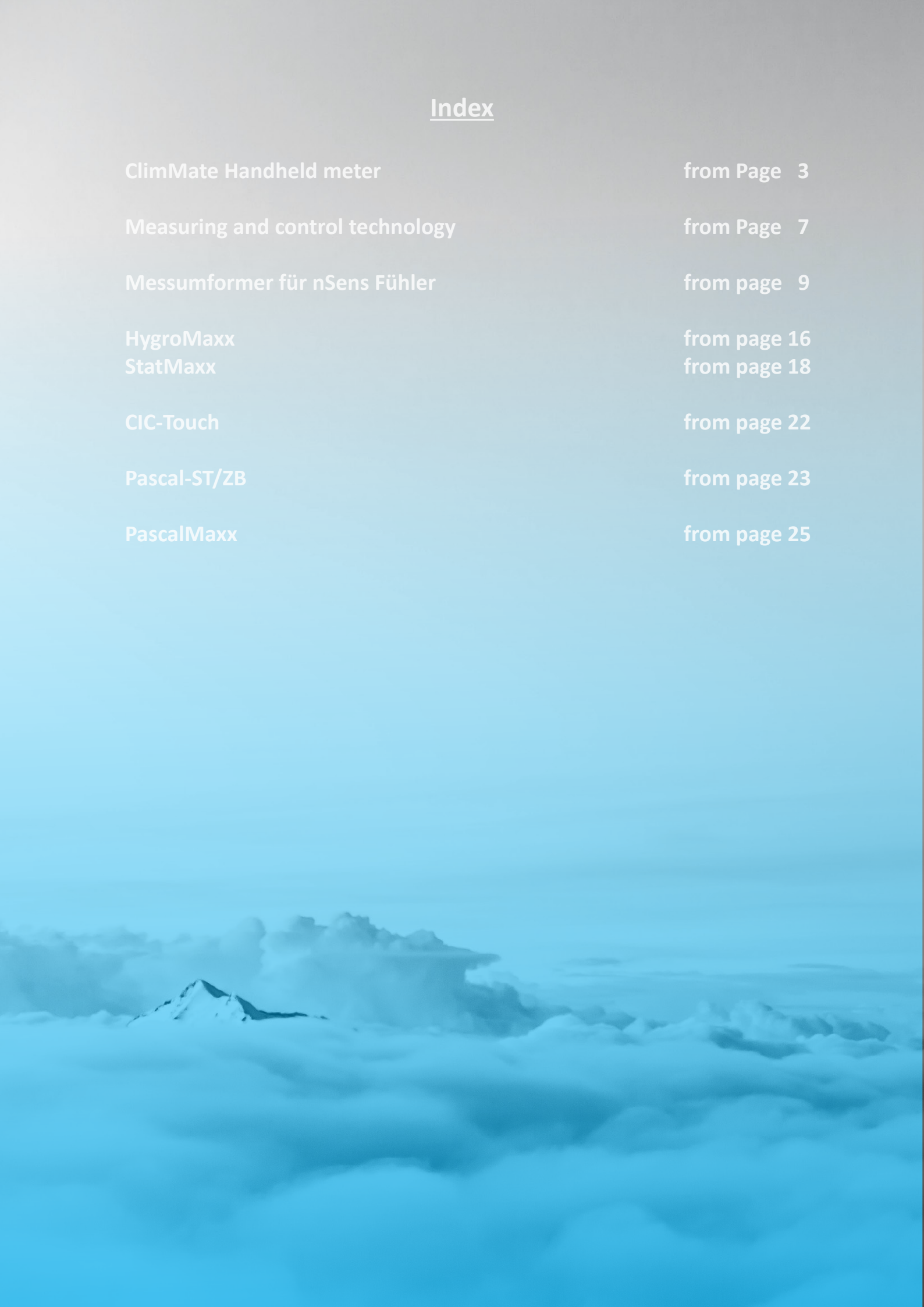


# ClimMate Handheld meter

**The hi-tech solution in pocket size with unique measurement technology...**

**…for calibration, adjustments and service in the food and pharmaceutical industry, logistics, etc.**

Display and recording of humidity, temperature,
Absolute Pressure, Air Velocity, CO2, Water Activity
and other climate metrics.

The modern operating and display unit features a large, colour LCD touch screen, simple operation and integrated logging function. The logger data can be easily transferred to the PC for further processing and evaluation using the supplied USB cable and software.

**Unique, electrolytic moisture measurement**

- especially suitable for environments with high and low air humidity
- reliable and drift-free measurements even in polluted air (ammonia, H2O2 etc.)
- high measuring accuracy and speed
- quickly exchangeable and calibrated


**Included in the complete set:**

- nSens-HT-ENS Humidity/Temperature probe
- 5-point calibration certificate
- 2 reusable humidity standards
- Display and control unit with LCD touch screen
- 1x Multifunctional operating and display unit ClimMate
- 1x Adapter SAL-SC for nSens probe
- 1x short instruction manual
- 1 x SmartGraph III software on CD
- 1x USB connection cable 1.8m

**ClimMate Set (Sal-SC 33+75%)**
260 1154
**ClimMate Set II (Sal-SC 75 + 97%)**
260 1636
**ClimMate Set III (without SAL-SC)**
260 1847

Complete set in case incl:

- Multifunctional measuring device ClimMate
- nSens-HT-ENS probe with factory certificate
- 2 Humidity standards
- USB connection cable 1.8m
- nSens cable extension 2m
- 4x Batteries Alkaline LR6 AA, 1,5V
- Transport case for instrument and sensors
- SmartGraph III Software

Technical data:

Dimension
Case: 450x360x105mm
ClimMate 170 x 62 x 34mm
Total weight: 2‘100 g

• Sens-HT incl. nLink-UMB
lenth 170mm x Ø 13mm
• Abslolute pressure sensor built-in
800….1‘100 mbar

## Optional sensor

**nSens-HT-ENS**
260 1171

Electrolytic measurement technology for highest demands.
Included as standard in the ClimMate set.

Digital humidity & temperature sensor with electrolytic humidity sensor & NTC temperature measurement.
With nCap-PS protective filter cap.

The adjustment points are stored directly in the sensor.
The sensor is pluggable and can be exchanged very quickly and easily.

Separate calibration/adjustment kit with software available.

Technical data:

Dimension: L101mm x Ø 13mm
Accuracy / Measuring range:
Humidity +/-0.5%
0.....100% rH
Temperature +/-0.1K
-20°…+80°C
Communication: digital via nBus

Factory calibration: at 6 humidity points and 1 temperature point incl. calibration certificate

**nSens-T-NBS**
260 1172

nSens temperature sensor incl. factory certificate

Digital temperature probe with NTC temperature measuring element.

The adjustment points are stored directly in the sensor.
The sensor is pluggable and can be exchanged very quickly and easily.

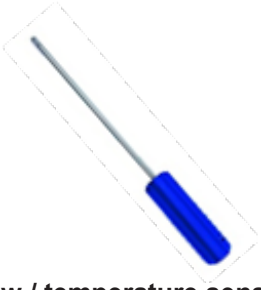
Separate calibration/adjustment kit with software available.

Technical data:

Dimension: L101mm x Ø 13mm
Accuracy: +/-0.1K
Measuring range: -20°…+80°C
Communication: digital via nBus

Factory calibration: at 2 temperature points incl. calibration certificate

Adjustment: using nSoft-CAL software



**Flow / temperature sensor 0.08...2m/sec**
260 1218

Digital air flow sensor based on the „hot-film anemometer“ principle with thin-film sensor. Robust against contamination. The flow direction has a significant influence on the measuring accuracy (vector).

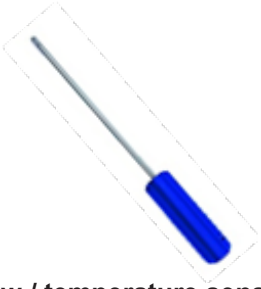
The sensor was optimized in special flow channels for lowest air velocities !

This sensor can only be used with the ClimMate.

Technical data:

Housing: 117 x 38 mm
Probe dimension: 200mm x 6mm
Weight: approx. 200 gr

permissible temp./humidity: 0...50°C / 0...95%rh
Measuring range : 0....2.0 m/s
M-accuracy : +/-0.08m/s
+1% of measured value
Resolution : 0.01m/s
Temperature : -20...70°C
Accuracy : +/-0.7°C / 0...+50°C



**Flow / temperature sensor 0...20 m/sec**
260 1220

Digital air flow sensor based on the „hot-film anemometer“ principle with thin-film sensor. Robust against contamination. The flow direction has a significant influence on the measuring accuracy (vector).

This sensor can only be used with the ClimMate.

Technical data:

Housing: 117 x 38 mm
Probe dimension: 200mm x 6mm
Weight: approx. 200 gr
permissible temp./humidity: 0...50°C / 0...95%rh
Measuring range : 0....20 m/s
M-accuracy : +/- 0.2m/s
2% of measured value
Resolution : 0.01m/s
Temperature : -20...70°C
Accuracy : +/-0.7°C / 0...+50°C
Connection : M12 thread with 2 meter cable

**Digital CO2 sensor**
260 1222

Energy-saving and robust. Measuring principle NDIR two-beam method.
Calibrated at several points over the entire temperature range.

This sensor can only be used with the ClimMate.

Technical data:

| | |
|---|---|
| Dimensions : | 96 x 18.5 mm |
| Measuring range : | 0...5000 ppm |
| Accuracy : | <+/-50ppm +3% of the at 25°C & 1013mbar |
| temperature : | -40...+60°C |
| Plug : | M12 thread |

## Spare parts and accessories

**nSens Cabel-2m**
260 1201
**nSens Cabel-5m**
260 1136

With 2 quick couplings (plug and socket) for nSens-xx Bus.

with each:
- 1 plug to nSens-HT / nSens-T sensor
- 1 plug to nLink-UMB adapter

nSens cable 2m : cable 3*0.23mm2
nSens cable 5m : cable 3*0.5mm2

Technical data:

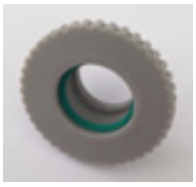
| | |
|---|---|
| Cable length: | 2 or 5m dimension |
| Cable connector: | 1x L52mmxØ15.8mm (page nSens probe) |
| | 1x L57mm x Ø16mm (page nLink-UMB) |
| Temperature range: | -20...+80°C |
| Properties: | see nSens cable |

**nSoft-CAL Software**
260 1094

Software for calibration and adjustment of nSens probes on the PC. Runs on Windows 98/2000/XP/Vista/Windows 7, 8 and 10.
incl. nLink-USB connection cable, 1,8m length

Set Includes :

- nSoft-CAL software on CD incl. driver
- User manual as PDF on CD
- nLink-USB Connection cable to PC for all nSens probes, length = 1,8m



**Adapter SAL-SC / nSens**
260 1143
**Adapter SAL-SC / variable 9-17mm**
260 1271

for all sensor types up to 17mm

Plastic adapter for humidity standards as reduction piece and radial seal on the circumference of the respective sensor.

Technical data:

| | |
|---|---|
| Dimension : | ID 13 mm (nSens) |
| | ID 9-17mm (variable) |
| Weight : | 5 g each |
| Material : | Thermoplastic plastic |

**USB power supply to ClimMate**

USB power supply to ClimMate

Power supply for external power supply with USB plug connection for ClimMate.
ClimMate battery isn't charged yet.

Technical data:

| | |
|---|---|
| Dimension : | 55x25x80 mm |
| Weight : | 50 g |
| Input : | 100...260V AC 50/60 Hz |
| Output : | +5V DC USB 1200mA / 6W |
| Housing : | Plastic ABS |

**protective bag**
111 8957

Protective bag for handheld

For storage and transport of the hand-held measuring instrument, the sensor and the SAL-SC Check humidity references.

Technical data:

| | |
|---|---|
| Dimensions: | 250 x 200 x 40mm |
| Weight: | 185 g (empty) |
| Material: | Textile upholstered, 2 side pockets to accommodate 2 x SAL-SC-Check |


**replacement instrument**
260 1206

Single instrument without accessories as spare part to the ClimMate set.

Robust housing made of ABS incl. batteries, certificate, operating instructions and soft bag for transport and storage !

Technical data:

| | |
|---|---|
| Instrument: | 170 x 62 x 34 mm |
| Weight: | approx. 205 gr |

TFT display 54 x 41 mm illuminated behind glass with touch surface

Built-in:
Absolute pressure sensor:
800....1100mBar
Integrated (incl. factory certificate)
Max. Altitude above sea level: 4'000m

Only single device in soft bag available!

**nLink-UMB**
260 1063

Conversion adapter from nSens sensor to Bus input of the ClimMate.

Attention : 1 nLink-UMB is connected to each nSens sensor. is required for connection.

Technical data:

| | |
|---|---|
| Dimension: | 20 x 60 mm |
| Weight: | approx. 30 g |
| Connector: | 5 pin screwed |

for UMB bus and 3 pin for nSens-HT

**Spare case**
260 1224

Empty case for handheld system „ClimMate" with div. Compartments for additional sensors and SAL-SC Humidity standards and extension cables.
Inserts in the case are already cut out.
and ready to pick up various sensors.
Attention : Case has no lock with key or combination lock!

Technical data:

| | |
|---|---|
| Dimensions: | Case 450x360x105mm |
| Empty weight : | 1'200 gr (empty) |
| Material : | Plastic Foam insert |

# Measuring and control technology
# relative humidity, temperature and other climatic parameters

**Electrolytic measurement technology: nSens-HT-ENS**
A new level of humidity and temperature measurement
- Fastest response in the measuring range 0 - 100 % rH / -20 to + 80°C
- drift-free measurement of high humidity (>70 % RH)
- highest accuracy and reproducibility (±0.5% rH)
- insensitive to volatile components (NH3, H2O2 etc.)
- Calibration data stored directly in the probe
- automatic sensor recognition

**Capacitive measurement technology: nSens-HT-CSS**
**Adjusted price/performance for comfort climate**
- Capacitive measurement technology for the measuring range 20 - 80 % rH
- Accuracy ±2.5%@25°C
- calibration data stored directly in the sensor
- automatic sensor recognition

**Temperature Sens-T:**
- Temperature sensor with NTC measuring element
- Measuring range -20 to +80°C
- Accuracy ±0.1K Flexible communication options

**Wireless: Wireless solutions with cloud connectivity**


**Digital: direct integration in Modbus RTU**

**Ethernet data logger: data transmission via**
**Decentralized storage in internal databases**


**Analog: mA/V Multisensor capable transmitter**

**nSens-HT-ENS**
260 1171

Electrolytic measurement technology for highest demands

Digital Humidity & Temperature Sensor with Electrolytic Humidity Sensor & NTC Temperature Measurement.

Includes 6 points factory certificate and
nCap-PS Protective filter cap.

The adjustment points are stored directly in the sensor.

Sensor is pluggable and can be exchanged very quickly and easily.

Technical data:

| | |
|---|---|
| Dimension: | L101mm x Ø 13mm |
| Accuracy / Measuring range: | |
| | Humidity +/-0.5% |
| | 0.....100% rH |
| Temperature | +/-0.1K |
| | -20°…+80°C |
| Communication: | digital via nBus |

Factory calibration: at 5 humidity points as well as 1 temperature point incl. Calibration certificate

**nSens-HT-ENH**
260 1771

Heated Humidity Sensor for
condensing environment

Digital humidity & temperature sensor with heated, electrolytic humidity sensor & NTC temperature measurement. Ideal for high humidity applications (95-100%).

Including 6 points factory certificate and
nCap-PS Protective filter cap.

Attention: Cannot be used with NovaZone Sensor.

Technical data:

| | |
|---|---|
| Dimension: | L101mm x Ø 13mm |
| Accuracy / Measuring range: | |
| | Humidity +/-1% |
| | 0.....100% rH |
| Temperature | +/-0.2K |
| | -20°…+80°C |
| Communication: | digital via nBus |

Factory calibration: at 6 humidity points as well as 1 temperature point incl. Calibration certificate

**nSens-HT-CSS**
260 1582
**nSens-HT-CSP (with protection filter)**
260 1659

Capacitive measurement technology for comfort air conditioning

Digital humidity & temperature sensor with capacitive humidity sensor.

CSS sensor with nCap-E (without filter)
CSP sensor with nCap-P (with protective filter)

The adjustment points are stored directly in the sensor.
The sensor is pluggable and can be exchanged very quickly and easily.

Separate calibration/adjustment kit with software available.

Technical data:

| | |
|---|---|
| Dimension: | L101mm x Ø 13mm |
| Accuracy / Measuring range: | |
| Humidity type | +/- 2% |
| | 10.....90% rH |
| Temperature type | +/-0.3K |
| | -20°…+80°C |

Communication: digital via nBus
Factory calibration: at 3 humidity points and 1 temperature point. Certificate must be ordered separately.

**nSens-T-NBS**
260 1172

nSens temperature sensor
incl. works certificate

Digital temperature probe with NTC temperature measuring element.

The adjustment points are stored directly in the sensor.
The sensor is pluggable and can be exchanged very quickly and easily.

Separate calibration/adjustment kit with software available.

Technical data:

| | |
|---|---|
| Dimension: | L101mm x Ø 13mm |
| Accuracy: | +/-0.1K |
| Measuring range: | -20°...+80°C |
| Communication: | digital via nBus |

Factory calibration: at 2 temperature points incl. calibration certificate

Adjustment: using nSoft-CAL software

**nSens-VAL-HT**
260 1126

Measured value - Simulator

Simulation plug for the output of fixed values for relative humidity and temperature.

The fixed values are set using the calibration software nSoft-CAL, which is available separately.

For loop checks as well as testing and validation of systems.

Technical data:

| | |
|---|---|
| Dimension: | L101mm x Ø 13mm |

Communication: digital via nBus
Fixed value settings via nSoft-CAL software.

SCS or Dakk's calibration certificate. Verification by an accredited testing laboratory, incl. certificate.

Calibration at 3 humidity points (RH) and 1 temperature point with indication of the measurement uncertainty (fixed measurement points).

Individual points can be requested.

**SCS certification 3 points**
260 1714

Factory certificates for nSens-HT-CSS must also be ordered if required.

nSens-HT-ENS contain the factory certificate at 6 points (111 2874) in the scope of delivery.

Probes can be recalibrated and adjusted at any time.

111 2873:
3* Humidity 11, 53, 90%rh &
1* Temp 25°C
Recommended for nSens-HT-CS*

111 2874
5* humidity 11, 33, 53, 75, 90%rh &
1* Temp 25°C

**Factory calibration ISO 9001 (3* humidity)**
111 2873
**Factory calibration ISO 9001 (5* humidity)**
111 2874

## Transmitter for nSens sensor

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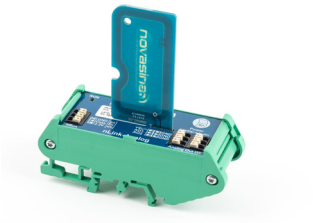

Measuring transducer for nSens sensors, for DIN rail mounting in switch cabinets. 2 analog outputs, freely configurable (mA/V) via USB or NFC.

Compatible with all nSens probes and 3-wire nSens cables (not included).

Technical data:

| | |
|---|---|
| Power supply: | 24V DC |
| Display: | not available |
| Analog outputs: | two scalable analog outputs |
| Application: | Mounting rail holder for installation in control cabinet |
| Operating temperature: | 0 to 50°C |
| Storage temperature: - | 10 to 60°C(non-condensing) |
| CE/EMC | Safety: IEC 6101010-1:2010<br>EMC: IEC 61000-6-2:2005,EN 61000- 6-2:2005<br>IEC 61000-6- 3:2006+A1:2010, EN 61000-6- 3:2007+A1:2011 |

**nLink AnalogEC**
260 1747

NEU

Transmitter for nSens sensor in housing with protection class IP67. 2 analog outputs, freely configurable (mA/V) via USB or NFC.

Compatible with all nSens sensors and nSens cables (not included).

Technical data:

| | |
|---|---|
| Power supply: | 24V DC |
| Display: | not available |
| Analog outputs: | two scalable analog outputs |
| Application: | Stand alone transmitter with connected probe |
| Housing material: | ABS |
| Protection class: | IP67 |
| Operating temperature: | 0 to 50°C |
| CE-/EMC: | Safety: IEC 61010-1:2010 |
| EMC: | IEC 61000-6-2:2005, EN 61000-6-2:2005 IEC 61000-6-3:2006+A1:2010, EN 61000-6 3:2007+A1:2011 |

**nLink AnalogIP**
260 1743

**QuantaDat Transmitter for analog signals (mA/V)**
260 1087
**QuantaDat-RL Transmitter for analog signals and relays**
260 1161

Multisensor capable transmitter in a robust plastic housing. Large LCD screen for display and configuration.

Input:
Up to 4 nSens sensors with cable lengths up to 100 meters (see nSens cable).

Output:
4x analog OUT (mA / V)
Freely configurable.
**Additional for relay version:**
2x switching contacts (24VDC / 3A)

Technical data:

| | |
|---|---|
| Dimension: | B150xH165xT54mm |
| Power supply: | 24V +/- 15% AC/DC |
| Power: | max. 3 W |
| Outputs: | 4 x analog U/I<br>0/2...10V, 0/4...20mA |

Other climate parameters:
- Mixing ratio
- partial water vapour pressure
- dew point temperature
- Specific enthalpy
- Absolute humidity

**nLink-Modbus (RTU/RS485)**
260 1095

Communication adapter for all nSens sensors on Modbus RTU, RS485.
Power supply 5-18VDC.
Attention: for each nSens sensor a 1 nLink Modbus is required for connection...

Input:
1 nSens sensor (ENS, CSS, T etc)

Output:
M12 connector RS485 (Modbus A&B, Voltage +-)

Technical data:

| | |
|---|---|
| Dimension: | 20*60mm |
| Power supply: | 5-18V DC |
| Outputs: | Modbus RTU |

Modbus allows the reading of all climate and diagnostic data of the connected nSens sensors.

Technical description / Modbus register on novasina.ch

Configuration of the adapter via Modbus or nCom485 set (260 1125).

NEU

**nLink-USB-CA3**
260 1818

1.8m long configuration cable for nLink-AnalogEC and nLink AnalogIP for Android or Windows PC. Software available for online download

Incl. USB adapter fo USB-Micro and USB Cable

**nCom 485 Cable**
260 1125

Configuration cable for nLink-AnalogEC and nLink-AnalogIP.

## complete set

**Set QuantaDat**
260 1314

This set includes:

- Display/Transmitter Unit QuantaDat (260 1087)
- nSens-HT-ENS probe (260 1171)
- nSens cable 5m incl. wall clip and flange
- works certificate

Three additional nSens sensors can also be connected and configured on the Quantadat.

Technical data:

| | |
|---|---|
| Dimensions: | B150xH165xT54mm |
| Power supply: | 24V +/- 15% AC/DC |
| Power: | max.3W |
| Outputs: | 4 x Analog U/I<br>0...10V / 2...10V<br>0...20mA / 4...20mA |
| Accuracy: | 0.....100% rH (+/-0.5%)<br>-20°...+80°C (+/-0.1K) |

Climate parameters:
Mixing ratio, water vapour partial pressure, dew point temperature, specific enthalpy, absolute humidity


**Set Modbus**
260 1315

This set includes:

- nLink Modbus (260 1095)
- nSens-HT-ENS probe (260 1171)
- works certificate

| | |
|---|---|
| Dimension: | 20*60mm |
| Power supply: | 5-12V DC |
| Outputs: | Modbus RTU |
| Accuracy: | 0.....100% rH (+/-0.5%)<br>-20°...+80°C (+/-0.1K) |
| Climate parameters: | - Mixing ratio<br>-Water vapor partial-Print<br>-dew point temperature<br>-Specific enthalpy<br>-Absolute Humidity |

## nSens cable

**nSens Kabel**

| | | |
|---|---|---|
| 260 1080 | **nSens-Cable** | **5m** |
| 260 1079 | **nSens-Cable** | **10m** *(sheltered)* |
| 260 1078 | **nSens-Cable** | **30m** *(sheltered)* |
| 260 1225 | **nSens-Cable** | **60m** *(sheltered)* |
| 260 1226 | **nSens-Cable** | **100m** *(sheltered)* |

Cable 3*0.5mm2, very resistant, halogen free and with quick connector for nSens-HT and nSens-T probe.

Sensor side with cable plug, transmitter side with 3 wire end sleeves for easier terminal entry.

Note:

Wall clip and duct flange available separately. (Art.No. 260 1083)

Technical data:

| | |
|---|---|
| Cable lengths: | 5 / 10 / 30 / 60 / 100m |
| Dimensions: | L52mm x Ø15.8mm |
| Temperature range: | -40°C to +90°C |

Cable plug:
More detailed information on dimensions can be found on the technical data sheet.

Properties:
More detailed information on resistance and standardization can be found on the technical data sheet.

**nSens cable extension**
260 1136 Cable extension 5m
260 1201 Cable extension 2m

Cable 3*0.5mm2, very resistant, halogen free and with 2 quick couplings.

with each:
- 1 plug for nSens-HT / nSens-T sensor
- 1 plug to nSens cable Cable plug

| | |
|---|---|
| Cable length: | 5m |
| Dimension: | 1x L52mm x Ø15.8mm |
| Cable connector: | (nSens sensorside)<br>1x L57mm x Ø16mm<br>(nSens cable side) |
| Temperature range: | -40°C to +90°C |
| Properties: | See nSens cable |

**nSens cable for Modbus**
260 1135 Bus cable 2 meter
260 1349 Bus cable 10 meters

To connect the nLink-Modbus adapter to the Modbus network

- Adapter side with M12 screw connector
- Network side with 4 open cable ends

Technical data:

| | |
|---|---|
| Cable length: | 2m / 10 m |
| Weight: | approx. 100 g |
| Connector: | M12 thread for nLink Modbus |

4 wire ends for connection to Modbus

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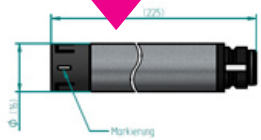


**nSens extension for duct mounting**
260 1651

Compatible with all nSens sensors and nSens cables

| | |
|---|---|
| Dimension: | L225mm Ø 16mm |
| Material: | anodised aluminium |
| Weight: | approx. 100 g |
| Plug: | nSens plug / socket |

## nSoft-CAL Calibration-Set

260 1094

Windows based software for calibration and adjustment of nSens probes on the PC. Runs on Windows 98/2000/XP/Vista/Windows 7 and 8.

Set includes
- 1 nlink USB cable (1.8m) for all nSens sensors
- Software adjustment of the nSens sensors

Technical data:

Includes:
- nSoft-CAL software on CD incl. driver
- User manual as PDF on CD
- nLink-USB connection cable nSens to PC, length = 1.8m

## Humidity generators SAL-SC

| | |
|---|---|
| 260 0978 | **SAL-SC 6** |
| 111 0885 | **SAL-SC 11** |
| 111 0855 | **SAL-SC 33** |
| 111 0857 | **SAL-SC 53** |
| 260 0219 | **SAL-SC 58** |
| 111 0859 | **SAL-SC 75** |
| 251 8965 | **SAL-SC 84** |
| 111 0896 | **SAL-SC 90** |
| 251 8966 | **SAL-SC 97** |

Ready to use and reusable as often as required when stored correctly.

Shelf life 5 years (with correct storage)

Moisture standards based on saturated salt solutions in plastic cylinders, with moisture-permeable membrane.

Humidity values in the temperature range 15° .... 30°C:
6.9 ..... 6.2% rH / 15....30°C
11.3 ..... 11.3% rH / 15....30°C
33.3 ..... 32.4% rH / 15....30°C
55.9 ..... 51.4% rH / 15....30°C
60.7 ..... 56.0% rH / 15....30°C
75.6 ..... 75.1% rH / 15....30°C
85.9 ..... 83.6% rH / 15....30°C
90.9 ..... 89.9% rH / 15....30°C
97.9 ..... 97.0% rH / 15....30°C

According to the Greenspan Report 1977, the reproducibility amounts to typically +/- 0.3 % RH
Weight: 90g per piece


## Factory certificate SAL-SC

260 1774

Individually related to the serial number of the SAL-SC.

1 point factory certificate for all SAL-SC.
Must be ordered together with a SAL-SC product.

## Humidity generators SAL-SC with accreditation certificate

| | |
|---|---|
| 111 1044 | **SAL-SC 11** |
| 111 1037 | **SAL-SC 33** |
| 111 1040 | **SAL-SC 53** |
| 111 1035 | **SAL-SC 75** |
| 260 1272 | **SAL-SC 84** |
| 111 1032 | **SAL-SC 90** |
| 251 1275 | **SAL-SC 97** |

Moisture standards based on saturated salt solutions in plastic cylinders, with moisture-permeable membrane.

Including internationally traceable UKAS certificate.

Internationally certified laboratory

All Novasina humidity standards are also available with an internationally recognised certificate from a European accredited laboratory (UKAS England).
Weight: 90g per piece

## Humidity generators in the case set

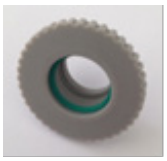
| | |
|---|---|
| 111 7847 | **Case set with SAL-SC** |
| 111 7841 | **Case without content** |

Humidity standards SAL-SC delivered as a set in a case incl. adapter for Novasina sensor systems
The case set contains:
- SAL-SC 11
- SAL-SC 33
- SAL-SC 53
- SAL-SC 75
- SAL-SC 90
- QA Certificate for SAL-SC
- 2 adapters for Novasina sensor systems

Technical data:

Humidity values in the temperature range 15° .... 30°C:
11.3 ..... 11.3% rH / 15....30°C
33.3 ..... 32.4% rH / 15....30°C
55.9 ..... 51.4% rH / 15....30°C
75.6 ..... 75.1% rH / 15....30°C
90.9 ..... 89.9% rH / 15....30°C
According to the Greenspan Report 1977, the reproducibility amounts to typically +/- 0.3 % RH

Weight: 700g



- for all sensor types up to 17mm

Plastic adapter for humidity standards as reduction piece and radial seal on the circumference of the respective sensor.

Technical data:

| | |
|---|---|
| Dimension : | ID 13 mm (nSens)<br>ID 9-17mm (variable) |
| Weight : | 5 g each |
| Material : | Thermoplastic plastic |

**Adapter SAL-SC**

260 1143 **Adapter SAL-SC/nSens**
260 1271 **Adapter variable 9-17mm**

Styrobox for temperature stabilization of a SAL-SC check during adjustment. Box consisting of 2 half shells, which are attached around the SAL-SC cylinder.

| | |
|---|---|
| Dimensions : | 100 x 65 x 50 mm |
| Weight : | 10 g |
| Material : | Foamed more thermal insulating Styrofoam PPE |

**Thermal insulation box for SAL-SC**

111 1302

## Ersatzteile und Zubehör

External power supply unit with exchangeable plug inserts EU/US/JP

Input: For voltage range from 90...264 VAC

Output: +24 VDC

Technical data:

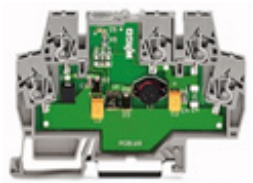
| | |
|---|---|
| Primary side: | Voltage range 90 ... 264VAC Connector type EU/ US/JP |
| Secondary side: | voltage 24V DC +/- 5% |

Open cable end prepared for connection

Weight: 90 gr

**External power supply**

252 4210



Voltage converter for nLink Modbus supply.

Terminal block/ DIN rail mounting for control cabinet.

| | |
|---|---|
| Primary side: | 24VDC |
| Secondary side: | voltage 10V DC / 0.5A with 6 mm height 56 mm (from mounting rail) Depth 91 mm |

**Voltage transformer 24V/10VDC**

260 1375

Silver oxide coated dust filter element

Recommended for nSens-HT-ENS

For optimum protection of the ENS sensor against dust contamination and chemical basic protection.

| | |
|---|---|
| Dimension: | Ø12.6mm x L36.1mm |
| Housing material: | PVDF black |
| Filter insert: | Polyethylene sintering material open-pored |

**nCap-PS protective filter cap**

260 1147

With dust protection filter insert

For optimum mechanical protection of the sensor and protection against dust contamination.

For particle sizes up to 10 qm

**nCap-P protective filter cap**

260 1146

**nCap-E protective filter cap**

260 1188

nCap-E protective cap

Protective cap without filter insert.

Mechanical protection only.

Recommended for nSens-T (temperature sensor) and nSens-HT-CSP/CSS in dust-free rooms.

---

**Wall and duct mounting kit**

260 1083

Set for mounting nSens sensors on walls or channels, incl. screws.

The duct flange seals up to a pressure of 3 bar off!

---

**Wall Mounting Kit**

260 1165

For wall distance up to center 20mm for different sensor types.

Wall mounting material is supplied.

---

**Case back for QuantaDat**

260 1173

As spare part

Includes all cables, compression fittings, cable fixing web and sealing membrane.

NEU


**nLink AnalogIP**
260 1808

Measuring transducer for nSens sensors, for DIN rail mounting in switch cabinets. 2 analog outputs, freely configurable (mA/V) via USB or NFC.

Compatible with all nSens probes and 3-wire nSens cables (not included).

Technical data:

| | |
|---|---|
| Power supply: | 24V DC |
| Premission voltage range: | 5 to 39V |
| Power consumption: | <0.5W |
| Display: | none |
| Input: | 1* PT100 / PT1000 (-200… +300°C)<br>2, 3 or 4 wire |
| Output: | 1 scalable analogue outputs current (0/4..20mA or voltage 0/2..10V)<br>Modbus RTU/RS485 |

NEU

**nLink AnalogEC**
260 1806

Single channel temperature transmitter for installation in electrical cabinets on mounting rails.
For one PT100 / PT1000 (2, 3 or 4 wire) sensor.
1 analog and 1 RS485 Output.

Configuration with USB configuration cable for Windows PC. Configuration possible without external power supply.

Technical data:

| | |
|---|---|
| Power supply: | 24V DC |
| Premission voltage range: | 5 to 39V |
| Power consumption: | <0.5W |
| Display: | none |
| Input: | 1* PT100 / PT1000 (-150… +300°C)<br>2, 3 or 4 wire |
| Output: | 1 scalable analogue outputs current (0/4..20mA or voltage 0/2..10V)<br>Modbus RTU/RS485 |

**PT100 sensor 2L**
**50... 200°C (V4A 6*50mm)**
260 0634

Universal cable sensor PT100 2 wire.
With 3 meters Silicon cable.

**PT100 sensor 4L**
**-190 bis +260 °C**
260 1864: 2 meter cable
260 1865: 4 meter cable

Extended temperature range, with Teflon cable, PT100, 4 wire.

**Configurations-Set**
**nLink-USB-CA4**
260 1125: nLink-RS485-CA4 (complete set)
260 1843: CA-4 Adapter

Configuration cable for TempDat and nLink Modbus to Windows PC.
Software available for download (ACT-M).

# HygroMaxx

HVAC (heating, ventilation, air conditioning) measuring instrument with large display for relative humidity and temperature measurement. For room (S/M) or duct (R) applications.

Simple operation via keyboard and intuitive function menu. The unit is equipped with two analogue outputs for relative humidity and temperature. These can be freely scaled.
The HygroMaxx measuring instrument is available in different versions.

| | |
|---|---|
| Relative humidity: | 0....100% rH |
| Temperature: | -20...80°C (sensor) 0...50°C (transmitter) |
| Accuracy: rh: | +/- 3.0% rh at 5...95% rh and 0.....50°C +/- 1.5% rh at 10...90% rh and 15....30°C<br>(after 3 point calibration with Novasina SAL-SC)<br>Temp.: ± 0.5°K (0...50°C) / ± 0.8°C (-10...80°C) |
| Output signals: | 2 analog outputs U/I (switchable)<br>U: 0...10V ; 2...10V / I: 0...20mA ; 4...20mA<br>Free scaling of the output characteristic possible. |
| Display: | 2 lines Display for relative humidity and temperature |
| Functions: | Selectable units °C / °F, scaling OUT |
| Adjustment: | 3 humidity, 1 temperature point |
| Average query: | ¼, 1, 3 hours, password protection |
| Adjustment: | At any time with Novasina humidity standards SAL-SC over 3 points readjustable (temperature 1 offset point) |
| Measuring principle: | Digital, capacitive CMOS-Sens® technology |

**HygroMaxx**

For monitoring, control and regulation

Humidity/temperature transmitter for HVAC and process control with local LCD display.

The instrument is extremely easy to install and maintain thanks to its sophisticated design. Built-in menu functions facilitate commissioning and service or adjustment with Novasina SAL-SC humidity standards. This product line can also be adapted to special customer requirements (OEM versions).

**Measuring instrument HygroMaxx:**

| | |
|---|---|
| Dimensions: | 110 x 118 x 50mm |
| Power supply: | 24 V DC ± 20% |
| Sensor length S: | 13 x 75 mm |
| Sensor length R: | 13 x 250 mm |

Humidity measurement:
CMOS-Sens® technology, digital capacitive

| | |
|---|---|
| Measuring range: | 0...100 % rH |
| Reproducibility: | ± 1.0 % RH |
| Accuracy (standard): | ± 3.0 % rH |
| Accuracy (calibrated): | ± 1.5 % rH |

Temperature measurement:
Digital PN transition to silicon

| | |
|---|---|
| Measuring range: | -20....80°C |
| Reproducibility: | +/- 0.1 K |
| Accuracy: | +/- 0.5 K (10...30°C) |
| Accuracy: | +/- 0.8 K (-20...80°C) |

Sensor Checks SAL-SC:
Moisture standards based on saturated salt solutions in plastic cylinders, with moisture-permeable membrane.

| | |
|---|---|
| Values: | 11%, 33%, 53%, 58%, 75%.<br>84% 90%rh. |

**HygroMaxx S**
252 3054

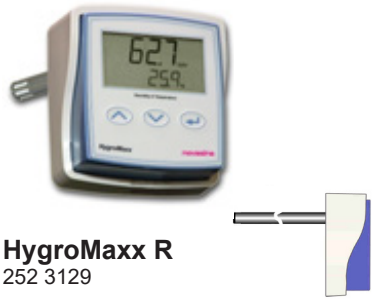
Humidity/ temperature measuring instrument for rooms

HVAC transmitter in an attractive, robust design. Two-piece plastic housing. Ideal for room climate measurements for monitoring and control.

Electrical cables can be inserted from the rear or underside.
The large LCD display makes it easy to read, even from a distance.
Various menu functions such as adjustment, scaling (Aout) and password protection.

Technical data:

| | |
|---|---|
| Dimensions: | 110 x 118 x 50mm |
| Sensor: | 13 x 75 mm |
| Weight: | 220 g |
| Power supply: | 24 VDC ± 20% |
| Outputs: | 2 x analog U/I<br>0...10V / 2...10V<br>0...20mA / 4...20mA |
| Measuring range: | 0...100%/-20°...+80°C (sensor only) |
| Units: | rF / °C or °F |
| Optional: | Factory calibration rF/T |



**HygroMaxx R**
252 3129

Humidity/ temperature measuring instrument for ducts
HVAC transmitter in an attractive, robust design.
Two-piece plastic housing. Ideal for measurements in ventilation ducts.
Electrical cables can be inserted from the rear or underside.
The large LCD display makes it easy to read, even from a distance.
Various menu functions such as adjustment, scaling (Aout) and password protection.

| | |
|---|---|
| Dimensions: | 110 x 118 x 50mm |
| Sensor: | 13 x 250 mm |
| Weight: | 280 g |
| Power supply: | 24 VDC ± 20% |
| Outputs: | 2 x analog U/I<br>0...10V / 2...10V<br>0...20mA / 4...20mA |
| Measuring range: | 0...100%/-20°...+80°C (sensor only) |
| Units: | rF / °C or °F |
| Optional: | Factory calibration rF/T |

**HygroMaxx M**
252 3130

Humidity/ temperature measuring instrument, remote sensor with 3 meter cable

HVAC transmitter in an attractive, robust design. Two-piece plastic housing.

Thanks to the remote SensMaxx 13 sensor with 3m cable (included in delivery), ideal for measurements for monitoring and control of industrial processes where high flexibility is required.
The large LCD display makes it easy to read, even from a distance. Various menu functions such as adjustment, scaling (Aout) and password protection.

Technical data:

| | |
|---|---|
| Dimensions: | 110 x 118 x 50mm |
| Weight: | 200 g |
| Power supply: | 24 VDC ± 20% |
| Outputs: | 2 x analog U/I<br>0...10V / 2...10V<br>0...20mA / 4...20mA |
| Measuring range: | 0...100%/-20°...+80°C (sensor only) |
| Units: | rF / °C or °F |
| Optional: | Factory calibration rF/T |
| Accessories: | Duct mounting kit<br>wall mounting kit<br>(not included in delivery) |

# StatMaxx

The StatMaxx series fulfils the function of a hygro/thermostat for control and regulation as well as monitoring of humidity and temperature in rooms. Thanks to simple operation via an intuitive menu system, the device can be quickly adapted to all requirements. It has an internal relay for one switching function. In conjunction with the Stat-PU power supply, devices with switching capacities of several KW can be switched.

For an effective monitoring system, the StatMaxx also has a digital UMB bus system and can be connected directly to a DataLog 30 data logger. The StatMaxx is available in 3 versions, for room and duct mounting and with remote sensor.

| | |
|---|---|
| Relative humidity: | 0....100% rH |
| Temperature: | -20...80°C (sensor) 0...50°C (transmitter) |
| Accuracy: | rh: +/- 3.0% rh at 5...95% rh and 0.....50°C +/- 1.5% rh at 10...90% rh and 15....30°C<br>(after 3 point calibration with Novasina SAL-SC)<br>Temp.: ± 0.5°K (0...50°C) / ± 0.8°C ( -20...80°C) |
| Output signals: | 1 digital with relay NO/NC max. 30VAC/2A<br>1 UMB bus interface (Universal Measurement Bus) |
| Display: | 2-line display RH and T, menu, error handling |
| Functions: | Units Temperature °C and °F,<br>Humidity %RH, adjustment at 3 humidity and temperature points (offset), alarm/control point incl. hysteresis and delay,<br>UMB bus configuration,<br>Average calculation at ¼, 1, 3 hours, password protection |
| Adjustment: | With Novasina SAL-SC standards at up to 3 humidity points, / Calibration Temperature with comparison measurement 1 point |
| Measuring principle: | rF: digital capacitive CMOS-Sens® technology<br>Temp: digital PN transition to CMOS chip |

**StatMaxx**

Humidity and temperature measuring instrument with hygrostat/thermostat function for simple monitoring, control and 2-point regulation in climate processes

Simple mounting on walls or devices and quick configuration options on site are further plus points. The device can be calibrated and adjusted at up to 3 humidity and 1 temperature points for checking and possible readjustment. For this purpose, reusable Novasina SAL-SC humidity standards can be used. The clear display provides information about the current measured value and the status of the device at any time. Various adjustable parameters are available for use with 2-point control. Further customer-specific versions are also available (OEM version).

**Measuring instrument StatMaxx :**

| | |
|---|---|
| Dimensions: | 110 x 118 x 50mm |
| Supply voltage: | 24 V DC ± 20% |
| Sensor length S-type: | Diam. 13 x 58 mm |
| Sensor length R-type: | Diam. 13 x 250 mm |
| Sensor length M-type: | Diam. 13 x 250 mm |

Humidity measurement:
CMOS-Sens® technology, digital capacitive

| | |
|---|---|
| Measuring range: | 0...100 % rH |
| Repeat accuracy: | ± 1.0 % rH |
| Max. Measuring accuracy: | ± 3.0 % rH |
| Max. Measuring accuracy: | ± 1.5 % rF(calibrated) |

Temperature measurement:
Digital PN CMOS transition to chip

| | |
|---|---|
| Measuring range : | -20....80°C |
| Repeat accuracy : | +/- 0.1°K |
| Measuring accuracy : | +/- 0.5°K (0...50°C)<br>+/- 0.8°K (-20..80°C) |

Sensor Checks SAL-SC:
Moisture standards based on saturated salt solutions in plastic cylinders, with moisture-permeable membrane „Cellgard“.

Values: 11%, 33%, 53%, 58%, 75%, 84%, 90%rh.

**StatMaxx S**
260 0840

Based on the HygroMaxx S transmitter, the StatMaxx S measures the relative humidity and temperature in rooms, displays them and transmits them via UMB protocol to a DataLog 30. Up to 4 StatMaxx units can be connected to a logger (bus length max 150m).
In addition, simple 2 point control functions (%RH/Temp.) can be carried out using relays and the Stat-PU power supply.

Technical data:

| | |
|---|---|
| Dimensions: | 110 x 118 x 50mm |
| Sensor: | diameter 13 x 58 mm |
| Weight: | 220 g |
| Power supply: | 24 VDC ± 20% |
| Outputs: | UMB interface for 4 StatMaxx to DataLog 30<br>1 ON/Off Relay<br>30V / 2 A for alarm or Control (Setpoint) |
| Optional: | Factory adjustment RH/T<br>33, 75 % RH / 25°C |

**StatMaxx R**
260 0839

Based on the HygroMaxx R, the StatMaxx R measures the relative humidity and temperature in rooms, displays them and transmits them via the UMB protocol to a DataLog 30. Up to 4 StatMaxx units can be connected to a logger (bus length max 150m).
In addition, simple 2 point control functions (%RH/Temp.) can also be carried out using relays and the Stat-PU supply.

Optional:
Duct mounting kit not included in delivery

Technical data:

| | |
|---|---|
| Dimensions: | 110 x 118 x 50mm |
| Sensor: | diameter 13 x 250 mm |
| Weight: | 240 g |
| Power supply: | 24 VDC ± 20% |
| Outputs: | UMB interface for 4 StatMaxx to DataLog 30<br>1 ON/Off Relay<br>30V / 2 A for alarm or Control (Setpoint) |
| Optional: | Factory adjustment RH/T<br>33, 75 % RH / 25°C |

**StatMaxx M**
260 0841

Sensor with remote sensor for humidity and temperature measurement. The signal to DataLog 30 is transmitted via the proprietary UMB protocol. Up to 4 StatMaxx can be connected to the DataLog 30. The maximum bus length is 150m. In addition, 2-point control functions can be performed using the built-in relay and the Stat-PU power supply.

Optional:
Channel mounting kit (not included as standard)

Technical data:

| | |
|---|---|
| Dimensions: | 110 x 118 x 50mm |
| Sensor: | diameter 13 x 250 mm |
| Weight: | 240 g |
| Power supply: | 24 VDC ± 20% |
| Outputs: | UMB interface for 4 StatMaxx to DataLog 30<br>1 ON/Off Relay<br>30V / 2 A for alarm or Control (Setpoint) |
| Optional: | Factory adjustment RH/T<br>33, 75 % RH / 25°C |

**STAT-PU power unit**
260 0877

Power supply and circuit breaker for StatMaxx measuring instrument. This allows higher power ratings (up to 11kW/3 phases) to be switched.

Typical applications : electric heating, cooling, Humidification/dehumidification.

- Integrated 3-phase relay for 115...600V, up to 11 kW, and galvanic isolation
- Integrated 24VDC power supply for StatMaxx and circuit breakers.

Technical data:

| | |
|---|---|
| Dimensions: | 225x110x90 mm |
| Weight: | 700 g |
| Power supply: | |
| Input: | 115-230V AC / 4W<br>50/60 Hz |
| Output: | 24V DC / 2,5W relay |

3 switching contacts NO isol. max. 11kW
1 Auxiliary account.NO isol.<= 17VDC/5mA
115-600V AC / 16A

**Wall mounting kit 13mm**
252 4468

Wall mounting clip (2 pcs.) for easy mounting of HS sensors on walls by means of
M4 wood, plastic or metal screws. The clip can be used again and again.

Technical data:

| | |
|---|---|
| Material: | Polycarbonate |
| Quantity: | 2 pcs. |
| Weight: | 15 g |

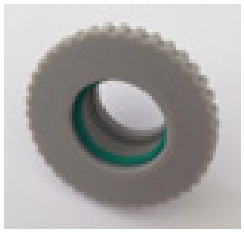
**duct mounting kit**
111 5343

Duct mounting flange (1 pc.) for StatMaxx R / M instrument. For simple and tight installation on ducts or through walls/ceilings incl. sealing O-ring. Mounting with 3 screws. The 13mm feed-through seals up to a maximum overpressure of 3 bar. The sensor can be removed at any time for readjustment.

-> Clamping range : 10 .... 14 mm

Technical data:

| | |
|---|---|
| Dimensions: | 60 x 20 mm |
| Weight: | 30 g |
| Clamping range: | 9...14 mm |



**Adapter SAL-SC**
260 1143

for 13mm sensors for SAL-SC Check

Plastic adapter for humidity standards as reduction piece and radial seal on the circumference of the respective sensor.

-> Please first adapter to sensor and then SAL-SC Check and check for leaks.

Technical data:

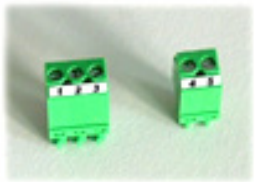
| | |
|---|---|
| Dimensions: | AD30 x ID 13 mm |
| Weight: | 5 g each |
| Material: | thermoplastic plastic |

**Thermal insulation box for SAL-SC**
111 1302

Styrobox for temperature stabilization of a SAL-SC check during adjustment. Box consisting of 2 half shells, which are attached around the SAL-SC cylinder.

Technical data:

| | |
|---|---|
| Dimensions: | 100 x 65 x 50 mm |
| Weight: | 10 g |
| Material: | Foamed more thermal insulating Styrofoam PPE |



**Replacement plug set to HygroMaxx R/S/M**
252 3134

Duct mounting flange (1 pc.) for StatMaxx R / M instrument. For simple and tight installation on ducts or through walls/ceilings incl. sealing O-ring. Mounting with 3 screws. The 13mm feed-through seals up to a maximum overpressure of 3 bar. The sensor can be removed at any time for readjustment.

-> Clamping range : 10 .... 14 mm

Technical data:

| | |
|---|---|
| Dimensions: | 60 x 20 mm |
| Weight: | 30 g |
| Clamping range: | 9...14 mm |

**Replacement plug set - StatMaxx**
260 0884

for 13mm sensors for SAL-SC Check

Plastic adapter for humidity standards as reduction piece and radial seal on the circumference of the respective sensor.

-> Please first adapter to sensor and then SAL-SC Check and check for leaks.

Technical data:

| | |
|---|---|
| Dimensions: | AD30 x ID 13 mm |
| Weight: | 5 g each |
| Material: | thermoplastic plastic |

**Spare room sensor for Hygro/StattMaxx**
252 3131

Replacement sensor for Hygro/StatMaxx S. If necessary, this can be replaced by loosening 2 screws in the cover and pulling out the RJ 11 connection.

Technical data:

| | |
|---|---|
| Dimensions: | Ø 13 x 75 mm |
| Cable: | 150mm with RJ 11 |
| Weight: | 15 g |
| Housing: | PVC version without membrane filter |

**Replacement channel sensor Hygro/StatMaxx**
252 3132

Replacement sensor for Hygro/StatMaxx R. This can be replaced if necessary by loosening 2 screws in the cover and pulling out the RJ 11 connection.

Technical data:

| | |
|---|---|
| Dimension: | Ø 12,7 x L 250 mm |
| Cable: | 150mm with RJ 11 |
| Weight: | 80 g |
| Housing: | stainless steel incl. filter for cell protection |
| Accessories: | Duct mounting kit (not included in delivery) |

**Replacement sensor removed HygroMaxx M**
252 3133

Replacement sensor for HygroMaxx M with 3 m cable. This can be exchanged if necessary incl. electric cable.

Technical data:

| | |
|---|---|
| Dimension: | Ø 12,7 x L 250 mm |
| Cable: | 3 m 5pol with screen |
| Weight: | 140 g |
| Housing: | stainless steel incl. filter for cell protection |
| Accessories: | Duct mounting kit wall mounting kit (not included in delivery) |

**Replacement sensor removed StatMaxx M**
260 0940

Ersatzsensor zu StatMaxx M mit 3 m Kabel. Dieser kann bei Bedarf inkl. Elektrokabel ausgetauscht werden.

Technical data:

| | |
|---|---|
| Dimension: | Ø 12,7 x L 250 mm |
| Cable: | 150mm with RJ 11 |
| Weight: | 80 g |
| Housing: | stainless steel incl. filter for cell protection |
| Accessories: | Duct mounting kit (not included in delivery) |

**Housing bottom closed Hygro/StatMaxx**
252 3135

As a replacement for damaged caseback.

Technical data:

| | |
|---|---|
| Dimensions: | 110 x118 x 35 mm |
| Weight: | 80 g |
| Housing: | PVC |

## Options

**External power supply unit EU/US/JP plug**
252 4210

External power supply primary side for a voltage range from 90 to 264 VAC with variable plug insert for EUR / US / JP .

On the secondary side it can be connected directly to all Hygro/StatMaxx types.

Technical data:

| | |
|---|---|
| Primary side: | |
| Voltage range: | 90 ... 264VAC EU/US/JP |
| Secondary: | |
| Voltage: | 24V DC +/- 5% |

Open cable end for connection primed
Weight: 90 gr


**factory adjustment**
252 4212

Including Novasina works certificate

Factory Certification and Adjustment to
3 humidity points (11%, 53%, 75% RH) and
1 temperature point (+25°C) incl. factory certificate.

-> Enables increased measuring accuracy.

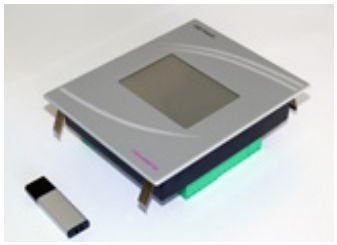
# CIC-Touch

The multiple display for room parameters such as humidity, temperature, differential pressure, particles, access control, etc. allows easy and fast reading of the conditions prevailing in the clean room. The signals are transmitted by external environmental sensors or switching relays. In addition to the effective measured value, which is displayed with the corresponding designation (e.g. temperature, humidity, etc.) and measuring location, the display background colour changes depending on the status. The colour green stands for a value within the limit values and red as soon as the range is exceeded or not reached.

The CIC-Touch display panel can be mounted easily and quickly flush and without screws in clean room walls. The unit is simply snapped into a wall recess and fixed in place with tension springs attached to the panel. Thanks to the small installation depth, the display fits into all common clean room walls. The smooth front meets cleanroom requirements and offers absolutely no dust or dirt traps and is very easy to clean.

Another highlight of the CIC-Touch is its versatile connectivity via analog/digital interfaces, switching contacts, Ethernet, Modbus, USB, RS-232, RS-485 and SD card. Thus, the display can also be optimally integrated into existing installations. Configuration is carried out via the intuitive operating and parameterisation menu.

For OEM applications, the CIC-Touch can also be pre-configured to customer specifications.



**Your advantages:**

- Flush mounting without dirt traps
- Easy to clean thanks to absolutely flatter Touch-Screen Surface
- Low installation depth and therefore suitable for all Cleanroom walls can be used
- Easy installation with tension springs
- Display of up to 4 parameters simultaneously
- Status display using background color
- Simple configuration via intuitive menu
- Various communication interfaces

**CIC-Touch Touchscreen display**
260 0941

Recommended environmental sensors to connect:

Humidity and temperature:
- QuantaDat / nSens / nLink-Modbus
- HygroMaxx S/R/M
- TempMaxx

Differential pressure:
- Pascal-ST/ZB
- PascalMaxx

This universal display can also be operated with sensors from other suppliers and is therefore also suitable for retrofitting.

Specifications:

| | |
|---|---|
| Display: | Graphic 3.5“ TFT Display 70x52mm |
| Front: | 150 x 120 mm (H2O2 order no.) |
| Mounting: | H 127 x W 107 x D 50mm. dim.: incl. connectors |
| Power supply: | 24 V AC/DC |
| Inputs: | 4 x digital inputs<br>4 x analog inputs |
| Outputs: | 2 x relay contacts 230V |
| Digital interfaces: | Ethernet, Modbus (RS-485) |
| USB: | Standard PC compatible |

# Pascal-ST/ZB Differential pressure measuring instruments

Differential pressure measuring instruments

Thanks to the latest sensor technology, optimized measuring electronics and automatic zero point adjustment, this instrument measures static differential pressure with high accuracy, repeatability and long-term stability.

Various functions such as calibration, password protection, measurement filter, signal output adjustment as well as alarm settings make this instrument very adaptable. Its applications are very versatile and it offers an ideal solution for demanding applications in the field of differential pressure monitoring and control.

Main features:

| | |
|---|---|
| Measuring ranges: | -25...+25 Pa / -100...+100 Pa (bidirectional) |
| Measuring accuracy: | 25 Pa series +/- 0.3% (total measuring range)<br>at 20°C 100 Pa series +/- 0.1% (total measuring range) |
| Hysteresis: | +/- 0.15 Pa (over entire measuring range) |
| Type offset drift: | +/- 0.15 Pa (with automatic zero point adjustment) |

## Pascal-ST/ZB

**Pascal-STV 25 ZB** (bidirectional)
260 1241

Measuring instrument for monitoring and controlling differential pressure in the deep measuring range from -25 to +25 Pa.

The measuring method is based on a piezoresistive silicon diaphragm. The continuously measured value is output to a scalable and adjustable analog output (voltage or current).

- Analog scalable output 0..10V / 4...20mA
- Additional LCD display on instrument

Technical data:

| | |
|---|---|
| Measuring range: | -25 ... +25 Pa |
| Analog output | |
| U : 0/2...10V | ($R_L$ > 10kOhm) |
| I : 0/4...20mA | ($R_L$ > 500Ohm) |
| Power supply 10.5 ... 35 VDC | |
| Dot Matrix LCD Display | |
| Power consumption max. 2.5 Watt | |
| Weight: | 320 gr |

**Pascal-STV 100 ZB** (bidirectional)
260 1242

Measuring instrument for monitoring and controlling differential pressure in the deep measuring range from -100 to +100 Pa.

The measuring method is based on a piezoresistive silicon diaphragm. The continuously measured value is output to a scalable and adjustable analog output (voltage or current).

- Analog scalable output 0..10V / 4...20mA
- Additional LCD display on instrument

Technical data:

| | |
|---|---|
| Measuring range: | -100 ... +100 Pa |
| Analog output | |
| U : 0/2...10V | ($R_L$ > 10kOhm) |
| I : 0/4...20mA | ($R_L$ > 500Ohm) |
| Power supply 10.5 ... 35 VDC | |
| Dot Matrix LCD Display | |
| Power consumption max. 2.5 Watt | |
| Weight: | 320 gr |

**Pascal-STD 25 ZB** (bidirectional)
260 1243

Measuring instrument for monitoring and controlling differential pressure in the deep measuring range from -25 to +25 Pa.

The measuring method is based on a piezoresistive silicon diaphragm. The continuously measured value is output to a scalable and adjustable analog output (voltage or current).

- Analog scalable output 0..10V / 4...20mA

Technical data:

| | |
|---|---|
| Measuring range: | -25 ... +25 Pa |
| Analog output | |
| U : 0/2...10V | ($R_L$ > 10kOhm) |
| I : 0/4...20mA | ($R_L$ > 500Ohm) |
| Power supply 10.5 ... 35 VDC | |
| Power consumption max. 2.5 Watt | |
| Weight: | 320 gr |

**Pascal-STD 100 ZB** (bidirectional)
260 1244

Measuring instrument for monitoring and controlling differential pressure in the deep measuring range from -100 to +100 Pa.

The measuring method is based on a piezoresistive silicon diaphragm. The continuously measured value is output to a scalable and adjustable analog output (voltage or current).

- Analog scalable output 0..10V / 4...20mA

Technical data:

| | |
|---|---|
| Measuring range: | -100 ... +100 Pa |
| Analog output | |
| U : 0/2...10V | ($R_L$ > 10kOhm) |
| I : 0/4...20mA | ($R_L$ > 500Ohm) |
| Power supply 10.5 ... 35 VDC | |
| Power consumption max. 2.5 Watt | |
| Weight: | 320 gr |

**Pascal-STVS 25 ZB**
**(bidirectional)**
260 1245

Measuring instrument for monitoring and alarming at differential pressure in the low measuring range from -25 to +25 Pa.

The measuring method is based on a piezoresistive silicon diaphragm. By exceeding or falling below the adjustable limit values, the 2 built-in relays are activated and the status is indicated by a coloured LED.

- 2 x relay alarm/switch output 48VDC/2A
- Additional LCD display on instrument

Technical data:

Measuring range: -25 ... +25 Pa
2 adjustable thresholds
Red/green LED indicators
2 relays (normally closed/ normally open)
Power supply 10.5 ... 35 VDC
Dot Matrix LCD Display

Power consumption max. 2.5 Watt
Relay contacts: 2 x 48V, 2 A

Weight: 320 gr

**Pascal-STVS 100 ZB**
**(bidirectional)**
260 1246

Measuring instrument for monitoring and alarming at differential pressure in the low measuring range from -100 to +100 Pa.

The measuring method is based on a piezoresistive silicon diaphragm. By exceeding or falling below the adjustable limit values, the 2 built-in relays are activated and the status is indicated by a coloured LED.

- 2 x relay alarm/switch output 48VDC/2A
- Additional LCD display on instrument

Technical data:

Measuring range: -100 ... +100 Pa
2 adjustable thresholds
Red/green LED indicators
2 relays (normally closed/ normally open)
Power supply 10.5 ... 35 VDC
Dot Matrix LCD Display

Power consumption max. 2.5 Watt
Relay contacts: 2 x 48V, 2 A

Weight: 320 gr

## Accessories

**PascalTool-Win**
111 6848

Configuration software for Windows

Configuration program PascalTool-Win for setting and changing parameters in Pascal STS, STVS, STD, STV / Z encoders.

Supplied on CD

Prerequisites:

Windows PC with CD drive, executable on Windows 98/NT/2000/ Vista/Windows 7

Suitable for Pascal STS, STVS, STD, STV / Z & ZB

**External power supply unit EU/US/JP plug**
252 4210

External power supply primary side for a voltage range from 90 to 264 VAC with variable plug insert for EUR / US / JP .

On the secondary side it can be connected directly to all Pascal STx types.

Technical data:

Primary side:
Voltage range: 90 ... 264VAC EU/US/JP

Secondary:
Voltage: 24V DC +/- 5%

Open cable end for connection primed

Weight: 90 gr

**Programming cable to PC (DB9)**
111 6849

Programming cable for connection to a PC, suitable for all Pascal-ST models.

Technical data:

Cable length: 1.5 m
Special clinker plug (Pascal side)
D-Sub 9 plug (PC-side)

Weight: 95 gr


CERTIFICATE OF FACTORY CALIBRATIO

**Factory calibration on 3 measuring points**
111 7603

Factory adjustment with corresponding factory certificate for all Pascal measuring instruments.

The calibration takes place at 3 measuring points, which must be specified by the customer.

Technical data:

Factory inspection and Adjustment of 2 measuring points.

The check is carried out by means of a calibrated and certified differential pressure measuring system.

**Certification at 10 measuring points**

SCS certificate according to DIN/ISO17025 for all Pascal measuring instruments.

The certification takes place at 10 measuring points distributed over the measuring range of the sensor.

**Custom configuration Pascal**
111 6074

Upon special request, all Pascal devices can be factory configured.

To do this, all required parameters must be submitted beforehand using a prefabricated and completed form.

Technical data:

Please fill out the Excel based form, so that an exact configuration of all Pascal measuring instruments can be carried out.

## PascalMaxx

Differential pressure measurement made easy!

Thanks to a high-quality diaphragm sensor, optimized measuring electronics and integrated, automatic zero point adjustment, this instrument measures very accurately, repeatable and stable even at higher differential pressures.

Various functions, which can be set via the front keypad, make this system versatile and adaptable.

Main features:

| | |
|---|---|
| Measuring ranges: | -50...+50 Pa / 0...+500 Pa / 0...+2000 Pa |
| Measuring accuracy: | +/- 50: +/- 0.5% (of the entire measuring range)<br>at +20°C 500 : +/-0.25% (of the entire measuring range)<br>2000 : +/- 0.5% (of the total measuring range) |
| Offset drift: | < 2 Pa / year (with automatic zero adjustment) |
| Configuration: | only possible via device keyboard! |

## PascalMaxx

**PascalMaxx 50 Z (bidirectional)**
260 0955

Measuring instrument for monitoring and controlling the differential pressure in HVAC applications. Measuring range from -50 to +50 Pa (bidirectional).

- Large LCD display on instrument
- Configuration via menu system incl. Alarm/Control
- scalable analog outputs 0..10V / 4..20mA
- Relay alarm/switching output 230V / 2A

Technical data:

| | |
|---|---|
| Measuring range: | -50 ... +50 Pa |
| 1 adjustable threshold value | |
| 1 analog output U/I | |
| Power supply: | 19.2 ... 28.8 VDC |
| Power consumption | max. 2 Watt |
| Relay contact: | 230V, 2 A |
| Weight: | approx. 200 gr |

**PascalMaxx 500 Z (unidirectional)**
260 0091

Measuring instrument for monitoring and controlling the differential pressure in HVAC applications. Measuring range from 0 to +500 Pa (unidirectional).

- Large LCD display on instrument
- Configuration via menu system incl. Alarm/Control
- scalable analog outputs 0..10V / 4..20mA
- Relay alarm/switching output 230V / 2A

Technische Daten:

| | |
|---|---|
| Messbereich: | 0 ... 500 Pa |
| 1 einstellbarer Schwellwert | |
| 1 analoger Ausgang U/I | |
| Speisung: | 19.2 ... 28.8 VDC |
| Leistungsaufnahme | max. 2.5 Watt |
| Relaiskontakt: | 230V, 2 A |
| Gewicht: | ca. 200 gr |

**PascalMaxx 2000 Z (unidirectional)**
260 0083

Measuring instrument for monitoring and controlling the differential pressure in HVAC applications. Measuring range from 0 to +2000 Pa (unidirectional).

- Large LCD display on instrument
- Configuration via menu system incl. Alarm/Control
- scalable analog outputs 0..10V / 4..20mA
- Relay alarm/switching output 230V / 2A

Technical data:

| | |
|---|---|
| Measuring range: | 0 ... 2000 Pa |
| 1 adjustable threshold value | |
| 1 analog output U/I | |
| Power supply: | 19.2 ... 28.8 VDC |
| Power consumption | max. 2.5 Watt |
| Relay contact: | 230V, 2 A |
| Weight: | approx. 200 gr |

## Accessories

**External power supply unit EU/US/JP plug**
252 4210

External power supply primary side for a voltage range from 90 to 264 VAC with variable plug insert for EUR / US / JP .

On the secondary side it can be connected directly to all PascalMaxx types.

Technical data:

| | |
|---|---|
| Primary side: | Voltage range 100 ... 240VAC connector type EU/US/JP |
| Secondary side: | Voltage 24V DC +/- 5% Open cable end for connection primed |
| Weight: | 90 gr |

**Factory calibration at 3 measuring points**
260 0091

Measuring instrument for monitoring and controlling the differential pressure in HVAC applications. Measuring range from 0 to +500 Pa (unidirectional).

- Relay alarm/switching output 230V / 2A
- Large LCD display on instrument
- Configuration via menu system incl. Alarm/Control
- scalable analog outputs 0..10V / 4..20mA

Technical data:

| | |
|---|---|
| Measuring range: | 0 ... 500 Pa |
| 1 adjustable threshold value | |
| 1 analog output U/I | |
| Power supply: | 19.2 ... 28.8 VDC |
| Power consumption | max. 2.5 Watt |
| Relay contact: | 230V, 2 A |
| Weight: | approx. 200 gr |

**Replacement plug set for PascalMaxx**
260 0096

Replacement connector set for PCB to PascalMaxx for power supply and analog outputs.

Technische Daten:

Ersatzstecker Set PascalMaxx:
Stecker: 2 Pol. Speisung
3 Pol. Relais
4 Pol. Analoger Ausgang
Gewicht: Total 20 g

**filter set**
260 0097

Protective filter for applications with high dirt loads.

The tubing can be attached to the connection nipples using the respective hose connector and the hose section with built-in filter.

Consisting of:

- 2 pcs. hose with filter
- 2 pcs. Ø4 / Ø4mm hose connector
- 2 pcs. Ø4 / Ø6mm hose connector