novasina
The Art of Precision Measurement

General Catalogue AIR

2014

Air humidity and temperature measurement instruments

for

Heating

Ventilation

Air conditioning

Process control

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Doc. 004701.00

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HygroMate

Quality at an affordable price

A cost-optimized, precise hand-held instrument for measuring the relative humidity and temperature in rooms and ventilation systems. The large, backlit liquid crystal display permits optimal readout of the measurements at all times.

The optimal handheld instrument for the service technician, for those installing climate control systems and for process control. It is also well-suited to quality control applications in the foodstuff, pharmaceutical chemical, engineering and electronic industries.

Relative humidity	:	**0....95% rh** *(non-condensing)*
Temperature	:	-20...50°C *Sensor & measurement range* 0...50°C *Electronics, power & display*
Precision	:	**+/- 2% rh** *5...90% rh* **+/- 0.3°C** *0...40°C, otherwise +/-0.5°C*
Measurement hysteresis:		approx. 1....1.5%rh *(capacitive measurement cell)*
Resolution	:	0.1..0.2°C / 0.1…0.2 % rh
Communication	:	Large area LC display with LED back-lighting No digital/analogue interfaces
Display functions	:	**Min** / **Max** value storage, average computation **Hold** measurement value storage **Time** and **Date**, **Auto Off** function Temperature display, **°C or °F** Humidity display with **Mollier diagram** conversion functions : • *Relative humidity in **% rh*** • *Dew point temperature in **°C or °F*** • *Mixing proportion in **g/m3***

Mobile measurement of air temperature and humidity

Economical, fast, flexible, robust

Who does not instantly want to know how hot, cold and humid it is? The new *Hygro*Mate measurement instrument satisfies these wishes in almost any place in the simplest way. It is a professional instrument for daily use, incorporating well-proven capacitive humidity measurement technology. The *Hygro*Mate is a perfect addition to Novasina's palette of hand-held instruments. A real alternative where extremely high precisions are not necessarily required (for most standard environmental applications).

The innovative **Thumbwheel** sets new standards of user-friendliness. This complements the ergonomic, robust, anti-slip dual-colour case design and the additional sensor-protecting filter system. The instrument can be checked at any time and, if necessary, calibrated at one or two values using the well-known **Novasina SAL-SC check** salt standards.

The new low-power processor technology with integrated climate computer and **Auto OFF** functions guarantees a long battery life. The display is switchable from **International** to **US units.** Further functions, **Dew point** and **Water Content** in g/m3 help the expert to make the correct on-the-spot decisions.

Applications:
- **Heating, ventilation and air conditioning: monitoring and service**
- **Space checks in warehouses, libraries, food storage areas**
- **Air measurements in buildings (offices, auditoria, lecture halls)**
- **Pharmaceutical production, chemical, biological and foodstuff**

Measurement instrument *Hygro*Mate:
Dimensions : 145x85x37mm
Weight : ca. 400 g
Power : 4 x 1.5V alkaline batteries

Humidity measurement:
Capacitive humidity measurement cell
Range : 0...95% rh *non condensing*
Precision : +/- 2.0%rh 5...90% rh
Measurement hysteresis : ~ 1...1.5% rh
Speed : T90 < 10 sec.

Temperature measurement:
Precise NTC resistance
Range : -20....50°C
Precision : +/- 0.3°C (0...40°C) otherwise +/- 0.5°C

Attention: The electronics, power and display should only be used in the temperature range 0...50°C .

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

Values: 11%, 33%, 53%, 75%, 90% rh

A "CH" adapter (reduction ring) is required for use of the SAL-SC checks.

*Hygro*Mate measurement instrument

111 8903 ***Hygro*Mate**

*Hygro*Mate hand measurement instrument

The *Hygro*Mate hand-held measurement instrument is delivered with a set of alkaline batteries, a metal web protection filter and an English/German user manual in a protective cardboard package. A certificate documenting a factory 2-point calibration is included.

-> The instrument is thus ready to use.

The instrument consists of:

Integrated electronics in an ergonomically formed plastic casing on which is mounted a capacitive sensor system.
- Chrome plated sensor protection system with a fine mesh metal filter.
- 4 pcs 1.5V LR 6 AA alkaline batteries
- User manual (English/German)
- Factory certificate with 2 humidity calibration values.
- Protective cardboard package

Weight : 400 g

*Hygro*Mate accessories

111 8929 **Holder**

Table or wall holder

An ideal support when wall-mounting of the *Hygro*Mate is required. Can be used as a table support by simply bending out a metal flap.

Table or wall holder:

Dimensions : 80 x 102mm
Weight : 85 g
Material : Stainless steel type *X5CrNi1810*

111 8957 **Soft bag**

Protective bag for the *Hygro*Mate

We recommend that the *Hygro*Mate measurement instrument be stored, used and transported in this durable, practical, protective bag. It provides protection for the instrument and includes space for accessories such as SAL-SC checks etc.. It can be carried on the shoulder or attached to a belt using the loops provided.
Velcro strips are provided to prevent objects falling out of the bag.

The protective bag comprises:

Dimensions : 250 x 200 x 40mm
Weight : 185 g *(empty)*
Material : 2 Padded textile side pockets for 2 SAL-SC checks and their containers

111 8958 **Carrying case**

Protective case for the *Hygro*Mate

The *Hygro*Mate can also be stored and transported in a strong plastic case. This provides more protection than the above bag, but needs more space. Space for the appropriate accessories is also provided.

The protective case comprises:

Dimensions : 320 x 350 x 60mm
Weight : 240 g *(empty)*
Material : Polycarbonate

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**

Sensor-Checks SAL-SC *(rh standards)*

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SC are obtainable for the following values (at 25°C) :

11.3 % rh colour white	75.3 % rh colour purple
32.8 % rh colour blue	84.3 % rh colour white
52.9 % rh colour green	90.1 % rh colour white
57.6 % rh colour white	97.3 % rh colour yellow

Important: please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-SC can be used for verification.

Humidity values in the temperature range 15° .... 30°C:

11.3 ..... 11.3% rF / 15....30°C
33.3 ..... 32.4% rF / 15....30°C
55.9 ..... 51.4% rF / 15....30°C
60.7 ..... 56.0% rF / 15....30°C
75.6 ..... 75.1% rF / 15....30°C
85.9 ..... 83.6% rF / 15....30°C
90.9 ..... 89.9% rF / 15....30°C
97.9 ..... 97.0% rF / 15....30°C

The precision corresponds to the Greenspan Report 1977 typically +/- 0.3 % rh

Weight : 90 g

111 7847 **Check set** *(complete)*
111 7841 **Empty casing**

Set with 5 Sensor-Checks SAL-SC

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SAL-SC are obtainable for the following values (at 25°C) :
11.3 % rh colour white
32.8 % rh colour blue
52.9 % rh colour green
75.3 % rh colour purple
90.1 % rh colour white

Case with all 5 Sensor Checks from 11 to 90%rh:
Humidity values in the temperature range 15°... 30°C :

11.3 ..... 11.3% rF / 15....30°C
33.3 ..... 32.4% rF / 15....30°C
55.9 ..... 51.4% rF / 15....30°C
75.6 ..... 75.1% rF / 15....30°C
90.9 ..... 89.9% rF / 15....30°C

The precision corresponds to the Greenspan Report 1977
typically +/- 0.3 % rh

Weight : 900 g

110 7345 Adapter **CH**

SAL-SC Sensor check adapter CH

for sensors with diameter 13 mm

This adapter is needed for calibration of a system with sensor diameter 13 mm. It ensures an airtight fixation of a SAL-SC check to the sensor top (measurement cell area). It reduces the diameter of 20 mm to 13 mm and ensures an airtight seal.

-> The adapter should be first mounted on the sensor top and then putted the SAL-SC check on it. Both seals should be carefully checked, leaks will bias the calibration.

CH adapter to SAL-SC salts for sensors with diameter 13 mm:

Dimensions : 30 x 13 mm
Material : Polycarbonate, rubber

Weight : 5 g

111 8959 **Sintered filter**

Sintered filter for the *Hygro*Mate

For higher protection against particles, dust and mechanical stress

A robust metallic filter made of sintered stainless steel. Provides active protection for the sensor system against particles larger than 10um.

-> Other filter systems are available on request

Sintered filter system:

Dimensions : 34 x 13 mm
Material : Sintered stainless steel
Response time : T50 ca. 30 sec

Weight : 30 g

Spare parts for *Hygro*Mate

111 8960 **Metal web filter**

Metal web filter for the *Hygro*Mate

Replacement metal web filter

A robust metal web filter made of stainless steel. Prevents particles larger than 100 um from reaching the sensor system and provides active protection. The instrument is delivered with this filter installed.

Metal web filter system :

Dimensions : 34 x 12.5 mm
Material : Stainless steel, plastic
Response time : T50 ca. 10 sec.

Weight : 20 g

111 8961 **measurement cell**

Capacitive measurement cell

*Replacement measurement cell for the Hygro*Mate

A replacement capacitive humidity measurement cell only for the HygroMate instrument. It is important that a new 2 point calibration is performed with the SAL-SC checks 11% and 75% rh when the cell is replaced.

Attention: In no circumstances should the cell be touched with the bare hands.

Replacement should only be done by a skilled person.

Capacitive humidity measurement cell:

Dimensions : 4 x 15 mm
Weight : 2g
Measurement : capacitive
stray field : +/-20% rh !!

A new 2 point calibration must be performed when this cell is replaced!

The cell should only be replaced by a Novasina agent!!

HygroGuard 30
ClimaLog 30 DataLog 30

This new data logger series excel with useful functions and high versatility. As stand-alone devices or integrated in PC-networks the ***Hygro*Guard 30**, ***Clima*Log 30** and ***Data*Log 30** can be used in various applications for climatic data measurement and recording. The high storage capacity of 3'2 Mio data points and the AA batteries with >1 year of operation life make this data logger system ideal for many applications. The data visualisation and device configuration is done by the Windows software **SmartGraph III** which is included in the delivery.

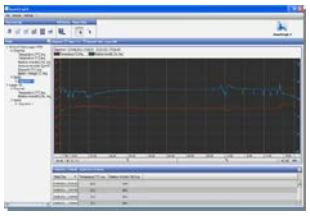
Novasina data logging product range:

***Hygro*Guard 30** with internal sensors for **humidity and temperature**

***Clima*Log 30** with internal sensors for **humidity, temperature and absolute pressure sensors**

***Data*Log 30** with no internal sensors **ready for 10 signals for monitoring systems**.

Data transmission is done via a UMB-Bus interface for the ..Maxx series or 2 x 4..20 mA. *(e.g. 4 x StatMaxx + 2 PascalMaxx)*



Features:

- High data storage capacity
- Large format and flexible display
- USB & **Ethernet interface (TCP/IP)**
- Connectable with external sensors via UMB bus for monitoring networks (only *Data*Log 30)
- Versatile and intuitive software for data analysis

	Model		
	***Hygro*Guard 30**	***Clima*Log 30**	***Data*Log 30**
MEASURED PARAMETERS			
Temperature	*X*	*X*	*external sensors*
Relative humidity	*X*	*X*	*external sensors*
Absolute humidity	*X (calculated)*	*X (calculated)*	*external sensors*
Dew point temp..	*X (calculated)*	*X (calculated)*	*external sensors*
Barometric air pressure		*X*	*external sensors*
Analogue inputs (voltage / current)			*2xAI + 8x Bus*
FUNCTIONS - DEVICE			
Power supply battery	*X*	*X*	*X*
Power supply USB	*X*	*X*	*X*
Measured data storage	*3'200'000*	*3'200'000*	*3'200'000*
Typ. battery life	*> 1 year*	*> 1 year*	*> 1 year*
LC-Display	*X*	*X*	*X*
One button operation	*X*	*X*	*X*
1-point calibration by operator	*X*	*X*	*X*
°C/°F switchable	*X*	*X*	*X*
Optical/acoustical alarm	*X*	*X*	*X*
Date / time	*X*	*X*	*X*
Records MIN/MAX/AVG	*X*	*X*	*X*
SmartGraph 3 evaluation software	*X*	*X*	*X*
UMB bus for external sensors			*X (8x signal)*
FUNCTIONS - SmartGraph III			
Graphical representation	*X*	*X*	*X*
Numerical data table	*X*	*X*	*X*
Print function	*X*	*X*	*X*
Export function (Excel etc.)	*X*	*X*	*X*
Printouts of all measurement sites	*X*	*X*	*X*
User administration	*X*	*X*	*X*
Administration of up to 255 a loggers	*X*	*X*	*X*
Windows API interface	*X*	*X*	*X*

Applications:

- **HVAC installations, clean rooms, calibration and QA laboratories**
- **Museums, archives, libraries, storage rooms**
- **Building Management Systems and monitoring systems**
- **Pharmaceutical- chemical-, biotechnology, food-industry**

Data logger systems:

Dimensions	: 166x78x32 mm
Weight	: 250 g
Power supply	: 4 x LRG AA Mignon batteries, USB - life time > 1 year
Housing/protection	: plastic ABS / IP40
Data storage	: 16 MB, 3'200'000 measured values
Interface	: USB, LAN (Ethernet)
Measurement rate	: 10/30s, 1/10/12/15/30 min., 1/3/6/12/24h
Storage rate	: 1/10/12/15/30min., 1/3/6/12/24h

Humidity measurement:

Capacitive measurement principle

Measuring range	: 10...95% RH *not condensing*
Accuracy	: +/- 2.0%rh
Resolution	: 0.5%rh

Temperature measurement:

NTC measurement principle

Measuring range	: -20....50°C
Accuracy	: +/- 0.3°C (0...40°C) otherwise +/- 0.5°C
Resolution	: 0.1°C

Air pressure measurement:

Measuring range	: 300…1300hPa abs.
Accuracy	: +/- 0.5hPa (700…1100hPa)
Resolution	: 0.1hPa

*Hygro*Guard 30 / *Cima*Log 30 / *Data*Log 30

260 0867 ***Hygro*Guard 30**

*Hygro*Guard 30 Data logger system

Battery powered data logger for recording of **humidity, temperature/dew point** with 16 MB data storage (3'200'000 values) with visualisation and configuration software and big LC-Display 90 x 64 mm.

Delivery includes:
- HygroGuard 30 device incl. 4 batteries
- 2m USB data transfer cable
- SmartGraph III software (on included CD)
- Operation manual (on the CD)
- Novasina factory calibration certificate

Dimensions: 166x78x32 mm
Weight: 250 g

Power supply: **4 x** LRG **AA Mignon** batteries (life time > 1 year)

Housing/protection: plastic ABS / IP40

Storage: 3'200'000 measured val.

Interface: USB, LAN (Ethernet)

Meas. rate: 10/30s,1/10/12/15/ 30min., 1/3/6/12/24h

Storage rate: 1/10/12/15/30min., 1/3/6/12/24h

260 0866 ***Cima*Log 30**

*Cima*Log 30 Data logger system

Battery powered data logger for recording of **humidity, temperature/dew point and absolute pressure** with 16 MB data storage (3'200'000 values) with visualisation and configuration software and big LC-Display 90 x 64 mm.

Delivery includes:
- ClimaLog 30 device incl. 4 batteries
- 2m USB data transfer cable
- SmartGraph III software (on included CD)
- Operation manual (on the CD)
- Novasina factory calibration certificate

Dimensions: 166x78x32 mm
Weight: 250 g

Power supply: **4 x** LRG **AA Mignon** batteries (life time > 1 year)

Housing/protection: plastic ABS / IP40

Storage: 3'200'000 measured val.

Interface: USB, LAN (Ethernet)

Meas. rate: 10/30s,1/10/12/15/ 30min., 1/3/6/12/24h

Storage rate: 1/10/12/15/30min., 1/3/6/12/24h

260 0868 ***Data*Log 30**

DataLog 30 Data logger system

Battery powered data logger for recording max. 10 channels (UMB interface and 2 analogue input U/I). With 16 MB data storage (3'200'000 values) with visualisation and configuration software and big LC-Display 90 x 64 mm.

Recommended external RH/T sensors from Novasina are the *Stat*Maxx "UMB" or HygroMaxx / TempMaxx / PascalMaxx models *(see accessories below)*

Delivery includes:
- DataLog 30 device incl. 4 batteries
- 2m USB data transfer cable
- SmartGraph III software (on included CD)
- Operation manual (on the CD)
- Novasina factory calibration certificate

Dimensions: 166x78x32 mm
Weight: 250 g

Power supply: **4 x** LRG **AA Mignon** batteries (life time > 1 year)

Housing/protection: plastic ABS / IP40

Storage: 3'200'000 measured val.

Interface: USB, LAN (Ethernet) and UMB *(universal measurement bus)*

Total : max. 10 channels
8 channels via UMB
2 channels
0…10V/4…20mA

Meas. rate: 10/30s,1/10/12/15/ 30min., 1/3/6/12/24h

Storage rate: 1/10/12/15/30min., 1/3/6/12/24h

Accessories

for *Hygro*Guard 30 / *Cima*Log 30

260 0871
***Hygro*Guard 30**
DKD certificate

*Hygro*Guard 30 DKD calibration certificate

Calibration certificate according to the official DKD accredited procedure.

Calibration at 3 RH points and 1 temperature point.

DKD calibration including official certificate

Rel.humidity : 20%, 50%, 80%rh at 20°C
Temperature : 20°C

260 0870
ClimaLog30 DKD certificate

*Clima*Log 30 DKD calibration certificate

Calibration certificate according to the official DKD accredited procedure.

Calibration at 3 RH points, 1 temperature point and 5 absolute pressure points.

DKD calibration including official certificate

Calibration points:
Rel.humidity : 20%, 50%, 80%rh at 20°C
Temperature : 20°C
Abs. pressure : 5 points
in range 750 …1100 mbar

260 0872
USB power supply

USB power supply

Power supply with USB socket to power H*ygro*Guard 30 *Clima*Log 30 or *Data*Log 30 with an external power supply. In such cases the internal AA batteries are only for backup and in case of a power failure.

2m USB cable already included in data logger package!

Dimensions: 55x25x80 mm
Weight: 50 g

Input power : **100…260V AC** 50/60 Hz
Output power : +5V DC USB 1200mA / 6W

Housing/protection: plastic ABS / IP40

Options

for *Data*Log 30 monitoring systems

260 0840 ***Stat*Maxx S**

*Stat*Maxx S

The ***Stat*Maxx S** is a universal measurement instrument for air humidity and temperature measurement in rooms. The instrument has an UMB interface (4 units up to 150m total bus cable length) and the possibility of a 2 point control/alarming with an internal relay *(isolated 30V switch for LOG-PU power supply)*

Delivery includes:
Mounting accessories and operating manual

Dimensions: 110 x 118 x 50mm
Probe: diameter 13 x 58 mm

Weight: 220 g

Power supply: 24 VDC ± 20%

Outputs: UMB interface for 4 StatMaxx and DataLog 30
1 ON/Off switch 30V / 2 A for alarm control with ***set point***

Optional: factory calibration RH/T 33, 75 % RH / 25°C

260 0839 ***Stat*Maxx R**

*Stat*Maxx R

The ***Stat*Maxx R** is a universal measurement instrument for air humidity and temperature measurement in ducts. The instrument has an UMB interface (4 units up to 150m total bus cable length) and the possibility of a 2 point control/alarming with an internal relay *(isolated 30V switch for LOG-PU power supply)*

Delivery includes:
Mounting accessories and operating manual
Remark:
Duct mounting kit is not included and must be ordered separately, see below.

Dimensions: 110 x 118 x 50mm
Probe: diameter 13 x 250 mm

Weight: 240 g

Power supply: 24 VDC ± 20%

Outputs: UMB interface for 4 StatMaxx and DataLog 30
1 ON/Off switch 30V / 2 A for alarm control with ***set point***

Optional: factory calibration RH/T 33, 75 % RH / 25°C

260 0841 ***Stat*Maxx M**

*Stat*Maxx M

The ***Stat*Maxx M** is a universal measurement instrument for air humidity and temperature with remote sensor with 3m cable. The instrument has an UMB interface (4 units up to 150m total bus cable length) and the possibility of a 2 point control/alarming with an internal relay *(isolated 30V switch for LOG-PU power supply)*
Delivery includes:
Mounting accessories and operating manual
Remark:
Duct mounting kit not included (see accessories)

Dimensions: 110 x 118 x 50mm
Probe: diameter 13 x 250 mm with 3 m cable

Weight: 240 g

Power supply: 24 VDC ± 20%

Outputs: UMB interface for 4 StatMaxx and DataLog 30
1 ON/Off switch 30V / 2 A for alarm control with ***set point***

Optional: factory calibration RH/T 33, 75 % RH / 25°C

111 5343
Duct mounting kit

Duct mounting kit

Duct mounting flange for ***Stat*Maxx R**. For easy and tight mounting to ducts or through walls/ceilings incl. sealing O-ring.Installation with 3 screws.The 13mm tight flange hole resists an overpressure of 3 bars. Sensor can be removed at any time for adjustment.

-> Diameter fixation range: diam. 10 ...14 mm

Duct mounting kit StatMaxx R:

Dimensions : 60 x 20 mm

Weight : 30 g

Installation range: diam. 9…14mm

260 0869 LOG-PU

LOG-PU
power unit and wiring

Power supply unit for monitoring system for 1 *Data*Log 30 and up to 4 external sensors *Stat*Maxx, HygroMaxx, TempMaxx and PascalMaxx.

Building up a simple network node with up to 10 measurment values requires a 115…230 VAC power supply and Ethernet TCP/IP connection (RJ 45).

Dimensions: 215x110x90 mm

Weight: 800 g

Input power : **115…230V AC**
50/60 Hz
Output power : 24V DC / 15W
0.63 A

Ready for UMB bus cable (2x2 wire for power and signal) up to 4 …Maxx instruments.

260 0873 UMB connector for the *Data*Log 30

UMB-bus connector

Connector for UMB-bus cable connection between a *Data*Log 30 unit and UMB sensors (e.g. *Stat*Maxx).

Note:
The *Data*Log 30 device has also an additional analogue input that can be used parallel to the UMB connection.

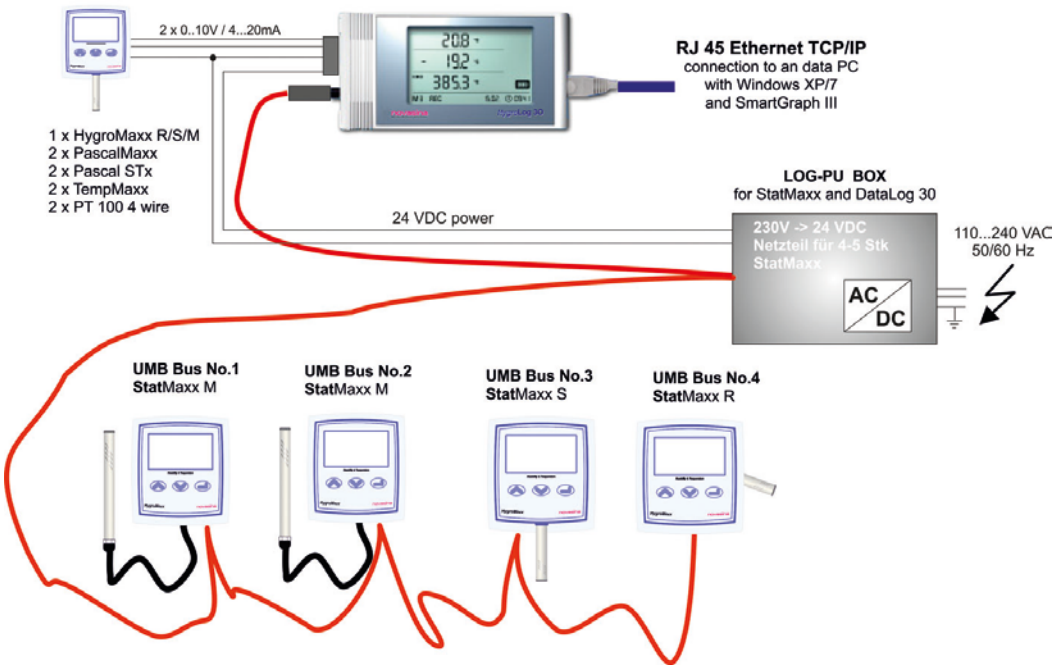
Dimensions: 20 x 60 mm

Weight: 30 g

Connection: 5 pol with screw
for UMB bus and
Power of the StatMaxx

Ready for UMB bus cable (2x2 wire for power and signal)
UMB-bus length max. 150 m

Installation example



*Hygro*Maxx

High performance measuring instrument with large LCDisplay for air relative humidity and temperature. For installations in rooms or ducts. The digital capacitive humidity measurement cell in conjunction with a newly developed sensor technology, enable this device to be used in various applications for measuring climatic parameters. Operation is effected via 3 keys and an intuitive menu. The ***Hygro*Maxx** transmits 2 analogue outputs for relative humidity and temperature. These can be scaled as required. Optimal integration into a control system can therefore be achieved. The ***Hygro*Maxx** is available in different versions for room and duct measurement.

Technical specifications at a glance:

Working range RH	:	0....100% RH
Working range T	:	-20...80°C *(sensor)* 0...50°C *(transmitter)*
Meas. accuracy	:	RH: +/- 3.0% RH at 5...95% RH and 0...50°C +/- 1.5% RH at 10...90% RH and 15...30°C *(with 3 point calibration with SAL-SC hum.standards)* T: +/- 0.5°K at 0....50°C / +/- 0.8°K at -20...80°C
Signal output	:	2 analogue outputs U/I (switch able) U :0....10V : 2...10V / I : 0...20mA : 4...20mA freely scalable output-characteristic curve operated by integrated configuration menu
Display	:	2 line display RH and Temp. Contemporaneously, error/menu control display, Dimensions 60x30 mm
Functions	:	units °C / °F, adjustment at 3 humidity points and 1 temperature point, scalable analogue outputs, moving average display ¼, 1, 3 hours, key lock by password
Adjustment	:	checkable and adjustable at any time at 3 RH points using the proven Novasina humidity standards SAL-SC
Measurement principle	:	RH: digital capacitive CMOS-Sens® technology Temp.: digital PN barrier layer

*Hygro*Maxx

For monitoring and controlling

Humidity/temperature transmitter for HVAC and process controls with local LCDisplay.

The ***Hygro*Maxx** product series have been developed following the newest technology in monitoring and controlling in the HVAC sector. These products represent an ideal combination of performance and price. The new sensor technology, the configuration possibilities and the robust design set a new standard in the HVAC field.

Thanks to the new design conception, these instruments are easy for installation and maintenance. Integrated menu functions facilitate the start-up, service resp. the RH adjustment with the Novasina SAL-SC humidity standards. Furthermore this product can be easily customised and adapted to specific needs (OEM versions).

Applications:

- **HVAC process-control and -monitoring**
- **Paper and textile manufacturing and handling**
- **Controls and monitoring systems in labs and metrology rooms**
- **Monitoring of industrial combustion processes**
- **Storage and archive monitoring in museums and libraries**
- **Storage systems, cooling rooms in the food & pharma industry**

Measurement instrument *Hygro*Maxx:

Dimension : 110 x 118 x 50mm
Power supply : 24 V DC ± 20%

Probe length S-type: diam.13 x 58 mm
Probe length R-type: diam.13 x 250 mm

Humidity measurement:

CMOS-Sens® technology, digital capacitive

Measurement range	: 0...100 % RH
Reproducibility	: ± 1.0 % RH
Max.accuracy (standard)	: ± 3.0 % RH
Max.accuracy (calibrated)	: ± 1.5 % RH

Temperature measurement:

digital PN barrier silicon layer

Measurement range	: -20....80°C
Reproducibility	: +/- 0.1°K
Accuracy	: +/- 0.5°K (0...50°C)
Accuracy	: +/- 0.8°K (-20...80°C)

Sensor Checks SAL-SC:

Humidity standards based on saturated salt solutions in plastic cylindrical containers. For multiple use, with „Cellgard“ humidity permeable membrane.

For values: 11%, 33%, 53%, 75%, 90% RH

HVAC and industry transmitter system

*Hygro*Maxx S / R / M

252 3054 ***Hygro*Maxx S**

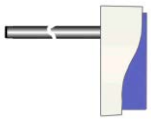
*Hygro*Maxx S

Humidity/Temperature measurement instruments for rooms

HVAC transmitter with stylish designed, robust, two-part plastic housing. Ideal for room measurements, monitoring and controlling of climatic parameters. 24 VDC power supply (no galvanic separation), 2 analogue outputs (U or I) for temperature and relative air humidity. The cable entry easily made via the housing's underside. The device is fixed with 4 screws to the wall. The big LCDisplay allows a good readability, even from the distance. Various menu functions and adjustment of RH and T as well as the analogue outputs and a password protection complete this versatile instrument.

Transmitter Hygro*Maxx S*:

Dimension: 110 x 118 x 50mm
Probe: diameter 13 x 58 mm
Weight: 220 g
Power supply: 24 VDC ± 20%
Outputs: 2 x analogue U/I
0...10V / 2...10V
0...20mA / 4..20mA
Meas.range: 0...100% /-20...+80°C
(only sensor)
Units: RH / °C or °F
Including mounting accessories and operating manual
Optional: factory calibration RH/T



252 3129 ***Hygro*Maxx R**

*Hygro*Maxx R

Humidity/Temperature measurement instruments for ducts

HVAC transmitter with aesthetic design, robust, two-part plastic housing. Ideal for duct measurements, monitoring and controlling of climatic parameters. 24 VDC power supply (no galvanic separation), 2 analogue outputs (U or I) for temperature and relative air humidity. The cable entry is easily made via the housing's underside. The device is fixed directly or with a mounting flange to the air duct. The big LCDisplay allows a good readability, even from the distance. Various menu functions as adjustment of RH and T as well as the analogue outputs and a password protection complete this versatile instrument.

Transmitter Hygro*Maxx R*:

Dimension: 110 x 118 x 50mm
Probe: diameter 13 x 250 mm
Weight: 280 g
Power supply: 24 VDC ± 20%
Outputs: 2 x analogue U/I
0...10V / 2...10V
0...20mA / 4..20mA
Meas.range: 0...100% /-20...+80°C
(only sensor)
Units: RH / °C or °F
Including mounting accessories and operating manual
Optional: factory calibration RH/T
Accessories: duct mounting flange
(not included in scope of delivery)

252 3130 ***Hygro*Maxx M**

Including SensMaxx 13 remote sensor

*Hygro*Maxx M

Humidity/Temp.measurement instrument for remote probe

HVAC transmitter with aesthetic design, robust, two-part plastic housing. The included remote sensor probe ***Sens*Maxx 13** with 3m cable makes this instrument ideal for monitoring and controlling of processes, where a high flexibility is required. 24 VDC power supply (no galvanic separation), 2 analogue outputs (U or I) for temperature and relative air humidity. The cable entry is easily made via the housing's underside. The device is fixed with 4 screws to the wall. The big LCDisplay allows a good readability, even from the distance. Various menu functions as adjustment of RH and T as well as the analogue outputs and a password protection complete this versatile instrument.

Transmitter Hygro*Maxx M*:

Dimension: 110 x 118 x 50mm
Probe: diameter 13 x 250 mm
Weight: 200 g
Power supply: 24 VDC ± 20%
Outputs: 2 x analogue U/I
0...10V / 2...10V
0...20mA / 4..20mA
Meas.range: 0…100% /-20…+80°C
(only sensor)
Units: RH / °C or °F
Including mounting accessories and operating manual
Optional: factory calibration RH/T
Accessories: duct & wall mounting flange
(not included in scope of delivery)

*Stat*Maxx

The Novasina *Stat*Maxx is a state-of-the-art **hygro/thermostat** for effective control applications for relative air humidity and air temperature. The configuration is made by 3 front buttons and an intuitive menu structure directly on the device. The alarm and control function drive an integrated relay switch for turn on/off an heater or humidifier. If you need data monitoring, there is an integrated bus interface (UMB - Universal Measurement Bus) implemented. This characteristics make the StatMaxx very versatile for climatic controls, monitoring and/or management of humidifiers and temperature controllers. This transmitter series offer 2 different models for wall (S type) or duct (R type) mounting.

Technical specifications at a glance:

Working range RH	:	0....100% RH
Working range T	:	-20...80°C *(sensor)* 0...50°C *(transmitter)*
Meas. accuracy	:	RH: +/- 3.0% RH at 5...95% RH and 0...50°C +/- 1.5% RH at 10...90% RH and 15...30°C *(with 3 point calibration with SAL-SC hum.standards)* T: +/- 0.5°K at 0....50°C / +/- 0.8°K at -20...80°C
Signal output	:	- 1 digital output by relay NO/NC max. 260VAC/2A - 1 UMB Bus interface *(Universal Measurement Bus)*
Display	:	2 line display RH and T,menu display, error messages. Dimensions 60x30 mm
Functions	:	units °C / °F, adjustment at 3 humidity points and 1 temperature point, alarm level setting incl. delay and hysteresis, UMB-bus configuration, moving average display ¼, 1, 3 hours, key lock by password
Adjustment	:	with Novasina SAL-SC standards at 3 RH points with referential instrument at 1 Temp. point
Measurement principle	:	RH: digital capacitive CMOS-Sens® technology Temp.: digital PN barrier layer

*Stat*Maxx

Humidity/temperature hygrostat with LC-Display for HVAC and simple process controls.

The ***Stat*Maxx** hygrostats have the latest state-of-the-art technology on board and can be used for 2-point controlling systems for humidity and temperature regulation. The used sensor technologies, the easy configuration possibilities and the robust design make this device ideal for applications in HVAC processes.

Thanks to its design the *Stat*Maxx can be easily mounted and put into operation. Another plus is the maintenance and calibration that can be performed on site with the Novasina multiple use SAL-SC humidity standards. Last but not least the small dimensions and the big display assure an ideal positioning and a good readability of the actual values and messages displayed on the LCD. Of course and as habitually this instrument can be also customised and adapted to specific customer needs (OEM versions).

Applications:

- **HVAC process-control and -monitoring (2-point controls)**
- **Paper and textile manufacturing and handling**
- **Control of humidifiers and heating coils**
- **Storages in various industries such as food & pharmaceutical**
- **Storages, archives in museums, libraries**
- **OEM solutions in combination with humidifiers/dehumidifiers**

Measurement instrument *Stat*Maxx:

Dimension : 110 x 118 x 50mm
Power supply : 24 V DC ± 20%

Probe length S-type: diam.13 x 58 mm
Probe length R-type: diam.13 x 250 mm

Humidity measurement:

CMOS-Sens® technology, digital capacitive
Measurement range : 0...100 % RH
Reproducibility : ± 1.0 % RH
Max.accuracy (standard) : ± 3.0 % RH
Max.accuracy (calibrated) : ± 1.5 % RH

Temperature measurement:

digital PN barrier silicon layer
Measurement range : -20....80°C
Reproducibility : +/- 0.1°K
Accuracy : +/- 0.5°K (0...50°C)
Accuracy : +/- 0.8°K (-20...80°C)

Sensor Checks SAL-SC:

Humidity standards based on saturated salt solutions in plastic cylindrical containers. For multiple use, with „Cellgard“ humidity permeable membrane.

For values: 11%, 33%, 53%, 75%, 90% RH

HVAC and industry transmitter system

*Stat*Maxx S / R / M

260 0840 ***Stat*Maxx S**

*Stat*Maxx S

Hygrostat with robust, two-part plastic housing and robust design for wall mounting with integrated sensor shaft. Ideal for use in rooms.

Power cable can be easily inserted via the housing underside. The device is fixed with 4 screws.

UMB bus tot. length: max. 150m (4 units +Datalog)

Main menu functions are: calibration; alarm, delay and hysteresis settings; configuration of the UMB (Universal Measurement Bus).

Delivery includes:
Mounting accessories and operating manual

Dimension: 110 x 118 x 50mm
Probe: diameter 13 x 58 mm

Weight: 220 g

Power supply: 24 VDC ± 20%

Outputs:
- 1 digital output by relay NO/NC max. 30VACDC/2A
- UMB-bus interface (Universal Measurement Bus)

Meas.range: 0...100% /-20...+80°C (only sensor)

Units: RH / °C or °F

Optional: factory calibration RH/T 33, 75 % RH / 25°C

260 0839 ***Stat*Maxx R**

*Stat*Maxx R

Hygrostat with robust, two-part plastic housing and robust design for wall mounting with integrated sensor shaft. Ideal for use in air ducts (back side). Power cable can be easily inserted via the housing underside. The device is fixed with 4 screws.

UMB bus tot. length: max. 150m (4 units + Datalog)

Main menu functions are: calibration; alarm, delay and hysteresis settings; configuration of the UMB (Universal Measurement Bus).
Delivery includes:
Mounting accessories and operating manual
Remark:
Duct mounting kit not included (see accessories)

Dimension: 110 x 118 x 50mm
Probe: diameter 13 x 250 mm

Weight: 220 g

Power supply: 24 VDC ± 20%

Outputs:
- 1 digital output by relay NO/NC max. 30VACDC/2A
- UMB-bus interface (Universal Measurement Bus)

Meas.range: 0...100% /-20...+80°C (only sensor)

Units: RH / °C or °F

Optional: factory calibration RH/T 33, 75 % RH / 25°C

260 0841 ***Stat*Maxx M**

*Stat*Maxx M

Hygrostat with robust, two-part plastic housing and robust design for wall mounting with integrated sensor shaft. Ideal for use in air ducts or rooms Power cable can be easily inserted via the housing underside. The device is fixed with 4 screws.

UMB bus tot. length: max. 150m (4 units + Datalog)

Main menu functions are: calibration; alarm, delay and hysteresis settings; configuration of the UMB (Universal Measurement Bus).
Delivery includes:
Mounting accessories and operating manual
Remark:
Duct mounting kit not included (see accessories)

Dimensions: 110 x 118 x 50mm
Probe: diameter 13 x 250 mm with 3 m cable

Weight: 240 g

Power supply: 24 VDC ± 20%

Outputs:
- 1 digital output by relay NO/NC max. 30VACDC/2A
- UMB-bus interface (Universal Measurement Bus)

Meas.range: 0...100% /-20...+80°C (only sensor)

Units: RH / °C or °F

Optional: factory calibration RH/T 33, 75 % RH / 25°C

260 0877 **STAT-PU**

STAT-PU power unit

Power supply unit and switch for 2 point control in combination with 1 unit StatMaxx for switching ON / OFF high power devices (up to 11 kW) like heaters, coolers, humidifiers, dehumidifiers.
With integrated 3-phase relay for 115…600V, 11kW, galvanic isolated. Also integrated is a 24V power supply for the StatMaxx and a power switch.

Dimensions: 225x110x90 mm

Weight: 700 g

Input power : **110…250V AC /15W** 50/60 Hz
Output power : 24V DC / 15W
500 mA / 15W

3 phase galv.isolated switch NO max. 11 kW.
1 auxilary contact isolated NO <= 17VDC/5mA
115…600V / 16A

Accessories for
HygroMaxx & StatMaxx

111 5343 **Duct mounting kit**

Duct mounting kit
Duct mounting flange for easy and tight mounting to ducts or through walls/ceilings incl. sealing O-ring.Installation with 3 screws.The 13mm tight flange hole resists an overpressure of 3 bars. Sensor can be removed at any time for adjustment.

-> Diameter fixation range: diam. 10 ...14 mm

***Duct mounting kit Stat*Maxx:**

Dimension : 60 x 20 mm

Weight : 30 g

Installation range : diam. 9…14 mm

252 4468 **Wall mounting Clip**

Wall mounting kit 13 mm
(for HygroMaxx M type external sensor)

Wall mounting clips (2 pcs) for the fixation of the ***Sens*Maxx 13** probes to walls with M4 wood, plastic or metal screws. Clips can be used several times.

***Wall mounting clip Sens*Maxx:**

Material : polycarbonate
Quantity : 2 pcs
Weight : 15 g

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**

Sensor-Checks SAL-SC *(rh standards)*

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SC are obtainable for the following values (at 25°C) :

11.3 % rh colour white
32.8 % rh colour blue
52.9 % rh colour green
57.6 % rh colour white
75.3 % rh colour purple
84.3 % rh colour white
90.1 % rh colour white
97.3 % rh colour yellow

Important: please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-SC can be used for verification.

Humidity values in the temperature range 15° .... 30°C:

11.3 ..... 11.3% rF / 15....30°C
33.3 ..... 32.4% rF / 15....30°C
55.9 ..... 51.4% rF / 15....30°C
60.7 ..... 56.0% rF / 15....30°C
75.6 ..... 75.1% rF / 15....30°C
85.9 ..... 83.6% rF / 15....30°C
90.9 ..... 89.9% rF / 15....30°C
97.9 ..... 97.0% rF / 15....30°C

The precision corresponds to the Greenspan Report 1977
typically +/- 0.3 % rh

Weight : 90 g

111 1044 -> **SAL-SC 11 C**
111 1037 -> **SAL-SC 33 C**
111 1040 -> **SAL-SC 53 C**
111 1035 -> **SAL-SC 75 C**
111 1032 -> **SAL-SC 90 C**

Sensor-Checks SAL-SC with European certificate

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SAL-SC are obtainable for the following values (at 25°C) :
11.3 % rh colour white
32.8 % rh colour blue
52.9 % rh colour green
75.3 % rh colour purple
84.3 % rh colour white
90.1 % rh colour white

Internationally accredited laboratory

All Novasina humidity standards can also be supplied with an internationally recognised certificate from an accredited European laboratory (UKAS England).

Weight : 90 g

111 7847 **Check set** *(standard)*
111 7841 **Empty case** for set

Set with 5 Sensor-Checks SAL-SC

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SAL-SC are obtainable for the following values (at 25°C) :
11.3 % rh colour white
32.8 % rh colour blue
52.9 % rh colour green
75.3 % rh colour purple
90.1 % rh colour white

Case with all 5 Sensor Checks from 11 to 90%rh:
Humidity values in the temperature range 15°... 30°C :

11.3 ..... 11.3% rF / 15....30°C
33.3 ..... 32.4% rF / 15....30°C
55.9 ..... 51.4% rF / 15....30°C
75.6 ..... 75.1% rF / 15....30°C
90.9 ..... 89.9% rF / 15....30°C

The precision corresponds to the Greenspan Report 1977
typically +/- 0.3 % rh
Weight : 900 g

110 7345 Adapter **CH**

SAL-SC Sensor check adapter CH

for sensors with diameter 13 mm

This adapter is needed for calibration of a system with sensor diameter 13 mm. It ensures an airtight fixation of a SAL-SC check to the sensor top (measurement cell area). It reduces the diameter of 20 mm to 13 mm and ensures an airtight seal.

-> The adapter should be first mounted on the sensor top and then putted the SAL-SC check on it. Both seals should be carefully checked, leaks will bias the calibration.

CH adapter to SAL-SC salts for sensors with diameter 13 mm:

Dimensions : 30 x 13 mm
Material : Polycarbonate, rubber

Weight : 5 g

111 1302 **Styrofoam box**

Thermal insulation styrofoam box

For the SAL-SC sensor checks

A styrofoam box providing optimal insulation and temperature stabilisation of a SAL-SC check during the calibration procedure. Consisting of two half-covers for simple temporary mounting.

-> Can be used together with the SAL-SC calibration kit

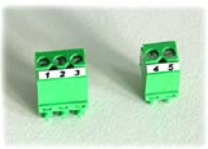
Styrofoam box for the SC check:

Dimensions : 100 x 65 x 50 mm
Weight : 10 g

Material : thermal insulating styrofoam PPE

Spare parts for

*Hygro*Maxx & *Stat*Maxx



252 3134 **Spare part plug set**

Spare plug set - *Hygro*Maxx

Spare plug set for main board, for power supply and analogue outputs.

Attention: use only 24 VDC +/- 10% power supply !

***Spare plug set for Hygro*Maxx:**

Plug : 2 pole 3.84 mm for power supply
3 pole 3.84 mm for analogue outputs
Weight : total 20 g

260 0884 **Spare part plug set**

Spare plug set - StatMaxx

Spare plug set for main board, for power, UMB and Relay output

***Spare plug set for Stat*Maxx:**

Plug : - 3 pole 3.84 mm for power supply & digital output
- 6 pole 3.84 mm for UMB bus
- 4pole for switch 230V
Weight : total 15 g

252 3131 **room sensor for S-type transmitters**

Spare room sensor

Spare sensor for **S-type** transmitters. The sensor (length 75 mm) can be replaced by un-tighten the 2 screws in the cover and unplugging the RJ 11 connector.

Recommendation: switch off the power supply before you replace **the sensor**

Spare sensor :

Dimension : Ø 13 x 75 mm
Cable : 150mm with RJ 11
Weight : 15 g

Housing : plastic armature without filter

252 3132 **duct sensor**

Spare duct sensor

Spare sensor (length 250mm) for **R-type** transmitters. Duct mounting flange not included.

Recommendation: switch off the power supply before you replace the sensor

Spare sensor :

Dimension : Ø 12,7 x L 250 mm
Cable : 150mm with RJ 11
Weight : 80 g
Housing : stainless steel with protection filter

252 3133 **remote sensor**

Remote sensor for *Hygro*Maxx M

Spare remote sensor with **3m cable**. Duct mounting flange not included.

Recommendation: switch off the power supply before you replace the sensor

Spare sensor :

Dimension : Ø 12,7 x L 250 mm
Cable : 3m with free wire endings !
Weight : 150 g
Housing : stainless steel with protection filter

260 0940 **remote sensor**

Remote sensor for StatMaxx M

Spare remote sensor with **3m cable**. Duct mounting flange not included.

Recommendation: switch off the power supply before you replace the sensor

Spare sensor :

Dimension : Ø 12,7 x L 250 mm
Cable : 3m with free wire endings !
Weight : 150 g
Housing : stainless steel with protection filter

252 3135 **housing bottom**

Housing bottom

As spare part for damaged housings.

Spare housing bottom:

Dimension : 110 x118 x 35 mm
Weight : 80 g
Material : PVC

Options

*Hygro*Maxx & *Stat*Maxx

252 4210 **power supply**

External power supply 90...264VAC/EUR

External primary power supply, for voltage range 90 to 264 VAC with Euro plug system.

From the secondary side this power supply can be connected directly to the transmitter.

Technical data:
Primary side :
Voltage range: 90 ... 264VAC
Euro plug
Secondary side :
Voltage: 24V DC +/- 5%

Cable ends unshielded and ready for connection.
Weight: 90 gr

252 4211 **power supply**

Ext. power supply 90...264VAC / US/JP

External primary power supply, for voltage range 90 to 264 VAC with US/Japan plug system.

From the secondary side this power supply can be connected directly to the transmitter.

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

Cable ends unshielded and ready for connection.
Weight: 90 gr

252 4212

Factory calibration

Including Novasina factory calibration certificate

Factory calibration and certificate for 3 humidity points (11%, 53%, 75% RH) & 1 temperature point (+25°C).
-> Enables a higher measurement accuracy

Factory calibration certificate :

The shipping of new instruments is always including factory calibration certificate, provided that the calibration has been ordered with PN 2524212.

See price list calibration

UKAS certification

in an accredited European laboratory

UKAS certification at min. two humidity points and if required at one or more temperature points.

For M versions, the remote sensor has to be sent together with the corresponding transmitter.

International certified laboratory

UKAS CALIBRATION

Novasina offers the possibility to buy UKAS certified measuring instruments.

TempMaxx

The TempMaxx is a precision measurement instrument with integrated control functions for the detection of temperature with external resistor sensors. The large displays, intuitive menu structure as well as the possibility to connect various sensors make this device extremely versatile for almost all industrial applications. The external sensors can not only detect very accurately the temperature in air, but also in liquids, solid objects and surfaces. A digital electronics design allows using the TempMaxx transducer in manifold applications such as monitoring, control and alarming.

This new instrument provides a scalable analogue output (U & I) as well as a relay switch output for 2 point control functions. The large LCDisplay indicates temperatures up to +400°C and °F. All versions of PT 100 / 1'000, Ni 1'000 or NTC elements can be wired in 2-, 3- or 4-wire technology. Using the integrated adjustment function, the TempMaxx transducer can be adapted ideally to each external sensor.

Temperature	:	0...50°C *(operational temperature transducer)* -50...400°C *(meas. range PT 100/1'000 sensor)* -50...200°C *(meas. range Ni 1'000 sensor)* -20...80°C *(meas. range NTC Beta Therm sensor)*
Accuracy	:	+/- 0.15% Full scale *(transducer accuracy)* depending on resistor element *(see PT DIN classifications)*
Signal output	:	1 analogue output U & I (usable in parallel) U: 0....10V ; 2...10V / I: 0...20mA ; 4...20mA free scalable output curve by configuration menu 1 digital output by relay NO/NC max. 260VAC/2A
Display	:	2-line display for temperature °C or °F and Status/Error/Menu display, dimensions 60x30 mm
Functions	:	Selectable units: °C / °F, Scalable analogue outputs Setting of hysteresis and delay for alarm- or 2-point control purposes Password protection system
Adjustment	:	2-point temperature adjustment for each sensor type
Measurement principle	:	Platinum-, Nickel-resistor elements, NTC thermistors

*Temp*Maxx *for HVAC applications*

For monitoring and process control

Temperature transducer for HVAC and process controls with LCDiplay.

The ***Temp*Maxx** product line has been developed following the most recent know-how in the HVAC control field. This line brings an ideal symbiosis of performance and price. The robust and ergonomic design of the whole ...Maxx product line has been developed especially for industrial applications.

Thanks to its clever design the instrument can be installed very easily and also the maintenance can be done efficiently. The integrated menu functions ease the start-up and the calibration procedure. The complete product line can also be customised if required.

Applications:

- **HVAC process-control and -monitoring**
- **Paper and textile manufacturing and handling**
- **Controls and monitoring systems in labs and metrology rooms**
- **Monitoring of industrial combustion processes**
- **Storage and archive monitoring in museums and libraries**
- **Storage systems, cooling rooms etc. in food & pharmaceutical industry**

Transducer *Temp*Maxx:

Dimension	: 110 x 118 x 50mm
Power supply	: 24 V DC ± 20%

Outputs:

Analogue OUT	: 1 x U and I 0 or 2...10V DC 0 or 4...20 mA DC
Digital OUT	: 1 relay switch NO, NC max. 260 VAC / 2A (ohmic load)

Temperature measurement:

Sensor connection	: 2-, 3- or 4-wire
Sensor types	: PT 100 DIN 60751 PT 1'000 /Ni 1'000 AA, A, B, 1/3B, C NTC type Beta Therm

HVAC and industry transducer system

*Temp*Maxx

260 0284 ***Temp*Maxx transducer** for resistor temperature measurement sensors **without sensor**

*Temp*Maxx

Temperature transducer for resistor sensors

Temperature transducer with robust industrial design. 2-part plastic housing with catcher (no screws for lid needed).
The transducer is delivered **without** resistor sensors, which should be procured separately. Suitable for connection are all PT 100/1'000, Ni 1'000 and NTC resistor elements in various designs with 2-, 3- or 4-wire connection.

Optimal for climatic measurements or for monitoring and controls. Power supply 24VDC (no galvanic isolation), 1 analogue output (U and I in parallel) for temperature, freely scalable. Furthermore the transducer has 1 relay switch NO or NC with selectable threshold, hysteresis and delay on board.

The electrical cable insertion comes from the back side resp. bottom side. The instrument can be directly fixed to the wall using 4 screws. The large LCDisplay allows a reading from a big distances and several other menu functions such as sensor and output range selection, calibration and password protection complete this versatile transducer.

***Transducer Temp*Maxx :**

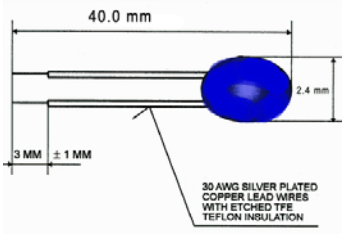
Dimension : 110 x 118 x 50mm
Sensor : 13 x 75 mm
Weight : 220 g
Power supply : 24 VDC ± 20%
Output : 2 x analogue U/I
0...10V / 2...10V
0...20mA / 4..20mA

Possible measurement ranges:
sensors
-50...400°C *(PT 100/1'000)*
-50...200°C *(Ni 1'000)*
-20...80°C *(NTC Beta Therm)*

Transducer operational temp.:
0...50°C

Units : °C or °F
Optional : factory calibration T

Accessories



260 0633 **Beta Therm NTC**
Sensor element singular

NTC Thermistor -20 ... +80°C :

Cost efficient, accurate and very small NTC temperature sensor element for a direct 2-wire connection to the ***Temp*Maxx**.
Pearl diameter : 2.4 mm
Material : glass
Resistivity at 25°C : 30 k Ohm 30K5A
Connection : AWG 3 isolated

NTC Beta Therm sensing element:

Pearl diameter : 2.4 mm
Length : 40.0 mm
Material : glass / CU
Quantity : 1 pc
Weight : 4 gr

260 0634 **PT 100 Duct sensor**
1/3 DIN with 3m silicone cable

PT 100 Cable duct sensor -50...+200°C

Universally applicable air cable duct sensor for extended temperature range up to +200°C.

Sensing element : PT 100 1/3 DIN
Casing : Immersion sleeve for gases & liquids, 6mm x 50mm sensor IP65
Connection : 2-wire technology, bared ending

Duct Sensor PT 100 with cable:

Dimension : 6 x 50 mm VA4
Cable length 3m silicone double isolated
Sensor PT 100 1/3 DIN
Weight : 140 gr
Connection : 2-wire

260 0635 **PT 100 Air sensor**
1/3 DIN with 5m cable

PT 100 Air-cable sensor -35...+105°C

Fast responding air cable sensor for measurement of gases up to +105°C.

Sensing element : PT 100 1/3 DIN
Casing : Steel protection sleeve VA4 6mm x 50 mm with holes
Connection : 4-wire technology, bared ending

Air sensor PT 100 with cable:

Dimension : 6 x 50 mm VA4
Cable length 5m PVC double isolated
Sensor PT 100 1/3 DIN
Weight : 130 gr
Connection : 4-wire

[260 0636](#) **PT100 Air-duct sensor**,1/3 DIN,4-wire

PT 100 Air-duct sensor -30...+180°C

Universally applicable gas duct sensor with duct probe length 150mm for temperature measurements in gaseous media in air ducts up to +180°C.

Sensing element : PT 100 1/3 DIN
Casing : Stainless steel probe VA4 6mm x 150mm, IP 65 protection PVC housing for connection
Connection : 4-wire technology with compression gland

Air-duct sensor PT 100:

Dimension	: 6 x 150 mm VA4
Housing	: 60 x 80 x 39 mm
Material	: PVC M16 compression gland
Sensor	: PT 100 1/3 DIN
Weight	: 110 gr
Connection	: 4-wire

[260 0637](#) **PT 1'000 Air-room sensor**, 2-wire

PT 1000 Air-room sensor -35...+70°C

Shapely air sensor for temperature measurements in rooms applicable up to +70°C, including white PVC housing.

Sensing element : PT 1'000
Housing : PVC colour white, IP 20 only for applications in non aggressive gases
Connection : 2-wire technology, screwable

Air-room sensor PT 1'000 :

Dimension	: 87 x 85 x 30 mm
Material	: ASA with ventilation slots
Sensor	: PT 1'000 2-wire, 1.5 mm2
Weight	: 80 gr
Connection	: 2-wire

...Temperature sensors for TempMaxx

Other temperature sensors on request

Options

252 4210 **power supply 24V EUR**

External power supply 90...264VAC/EUR

External primary power supply, for voltage range 90 to 264 VAC with Euro plug system.

From the secondary side this power supply can be connected directly to all ***Temp*Maxx** types.

Technical data:
Primary side :
Voltage range: 90 ... 264VAC
Euro plug
Secondary side :
Voltage: 24V DC +/- 5%

Cable ends unshielded and ready for connection.
Weight: 90 gr

252 4211 **power supply 24V US/JP**

Ext. power supply 90...264 VAC / US/JP

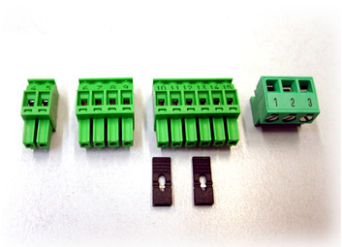
External primary power supply, for voltage range 90 to 264 VAC with US/Japan plug system.

From the secondary side this power supply can be connected directly to all ***Temp*Maxx** types.

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

Cable ends unshielded and ready for connection.
Weight: 90 gr

Spare parts



260 0303 **Spare connector set** *Temp*Maxx

Spare connector set to *Temp*Maxx

Spare connector set for PCB to ***Temp*Maxx** for power supply, sensor input, analogue output and alarm (set with 4 pcs).

Incl. 2 jumpers for switching from 2-, 3-, or 4-wire technology wiring.

Packed inside plastic bag.

***Spare connector set to Temp*Maxx:**
Connectors: 2 pin 3.84 mm Power
4 pin 3.84 mm AOUT
6 pin 3.84 mm SENS
3 pin 5.08 mm ALA

252 3135 housing bottom ***Temp*Maxx**

Housing lower half for *Temp*Maxx

As spare part for damaged housings.

***Spare housing bottom for Temp*Maxx :**
Dimension : 110 x118 x 35 mm
Weight : 80 g
Material : PVC

HygroDat 100

Precise and robust humidity and temperature measurement instrument for control and regulation of industrial processes, as well as monitoring and data recording. This transmitter system is capable to run two different measuring principles, depending on the application. It is possible to either use the **resistive electrolyte** or the **digital capacitive** measuring system. The electrolyte measurement system achieves a higher accuracy and the digital capacitive measurement works in a bigger temperature range. The customer can chose the most suitable sensor type to be connected to the transmitter. With its multiple communication possibilities and the freely configurable analogue outputs, this extremely versatile system can be ideally used for all industrial applications and if required in combination with process control units.

Relative humidity : **6....100% rh** *(electronic saturation protection)*

Temperature : **-20...80°C** *(E-sensor)* ***(-40.....+120°C** C-sensor)*

Precision : **+/- 0.5% rh** 11...95% rh at 25°C *(E-sensor)*
+/- 2.0% rh 11...95% rh at 25°C *(C-sensor)*
Basis - 5-point calibration with SAL-SC-Set
+/- 0.2°K 0....50°C (32....122°F)

Communication : 2 freely scalable analogue outputs
U :0....10V : 2...10V / I : 0...20mA : 4...20mA
for Temp and RH, Td, enthalpy, water content.

CAN digital bus system with the CANopen protocol supporting up to 127 H-100 instruments

RS 232 interface for peer to peer communication with NovaLog 32 visualisation software or WinDLL

Climate computer : instrument can be switched to all ISO and US units,

- Air temperature °C -> °F
- Dew point temperature °C -> °F
- Relative humidity % rh
- Specific enthalpy J/kg -> btu/lb
- Mixing ratio g/Kg -> g/lb

*Hygro*Dat 100 *The standard for humidity and temperature measurement in industry with unsurpassed precision*

The multi-talented system, combining the latest electronics with highly reliable software architecture. Depending on the application, you decide which measurement technology you prefer. The unsurpassed resistive electrolytic humidity measurement cell, or the digital capacitive cell, both running on the same transmitter system. This simplifies considerably the evaluation of the right instrument and simplifies the installation, operation, service and calibration. The appropriate industrial design and the various combinations of transmitters and sensors make it possible to provide the ideal solution for every specific application. The sensor can be installed up to 30m (C-sensor) or 100m (E-sensor) from the transmitter unit. There is no inaccuracy due to the cable lengths and it can be shortened and extended as required without any lack of precision.

A variety of hard- and software functions complete the instrument. These include free scalability of the analogue outputs, easy recalibration using Novasina's humidity standards SAL-SC as well as an integrated climate computer (Hx-diagram), variability of units, calibration alarm and password protection.

Applications:

- **Monitoring and control of pharmaceutical production processes**
- **Paper and textile production and processing**
- **Laboratory test and measurement rooms monitoring**
- **Chemical process control and monitoring**
- **Control of industrial combustion processes (turbine exhausts)**
- **Storage and archive monitoring**
- **Nuclear power station air conditioning processes**
- **Clean rooms in pharmaceutical, semiconductor, biotech production**

Measurement instrument HygroDat 100
Polycarbonate housing:
Dimensions : 140 x 180 x 71mm
Power : 24 V AC / DC
90...230V AC
50/60Hz

Humidity measurement: (E-sensor)
Resistive electrolytic measurement cell
Measurement range: 6....100 % rh
Precision : +/- 0.5 % rh
Capacitive measurement cell
Measurement range: 0....100 % rh
Precision : +/- 2.0 % rh
(Based on 5-point calibration with SC at 25°C)

Temperature measurement: (E-sensor)
High precision NTC resistance element
Measurement range : -20....80°C
Repeatability : +/- 0.1 K
Precision : +/- 0.2 K
(-20°...+80°C)

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

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

Precision industrial transmitter system

*Hygro*Dat 100

Thanks to its modularity, the most modern humidity and temperature transmitter system HygroDat 100 can be configured optimally, what helps to find the best solution for almost all specific industrial applications. A real innovation is the fact that you can chose from 5 different sensor-armatures to be connected to the transmitter unit. Furthermore there is the possibility to communicate by a RS-232 interface and run a visualisation and recording software on a PC (peer to peer connection).

Polycarbonate housing

111 6930 HygroDat 10024V AC/DC
111 6931 HygroDat 10090...230V

Polycarbonate HygroDat 100

Industrial transmitter with 24V AC/DC or 90…260V AC power supply. Blue/grey plastic housing with IP65 protection class.

Designed for connecting HIA, HIS, HIC, HICS and HICH electronic sensors via a 5 wire cable up to a length of 30m (C-sensors) or 100m (E-sensors).

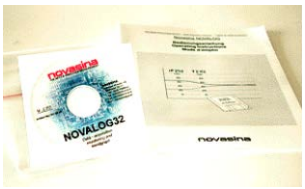
The transmitter is supplied in a single package with an electronic sensor. The complete system has been 5-point adjusted prior to delivery (factory calibration)

-> The sensor should always be used as a unit with the transmitter.

E-sensors *: HIA und HIS*
C-sensors *: HIC, HICS und HICH*

HygroDat 100 polycarbonate:

Dimensions	: 130 x180x 66.5mm
Weight	: 530 g
Power supplies	: 15...40 VDC 16...30 VAC 90...260 VAC up to 60 Hz
Power used	: AC max. 3.5 W DC max. 3.0 W
Outputs	: 2 x Analogue U/I 0...10V / 2...10V 0...20mA / 4..20mA or CAN bus or RS-232
Ranges	: 6.....100% -20°.....+80°C
Units	: ISO / US switchable °C, °F, % rh, KJ/kg g/kg, btu/lb



111 6855 NovaLog 32

PC-Software NOVALOG 32

For PC/Laptop and WIN Operating systems to HygroDat 100

Visualisation software for Windows based PC-Systems on a CD incl. operating instructions for HygroDat 100-E and -C. With it, long term data recordings (logging mode), trend graphs, but also climatic parameter calculations can be made. This software requires a Windows 9x/2000/NT/XP operating system.

RS-232 to HygroDat 100:

CD :	- NOVALOG 32 software - Operating instructions - DLL driver to HD 100
PC/Laptop	: Windows op. system
RS-232	: COM 1...12 interface at PC / Laptop

111 9415 USB-RS232

PC/Laptop converter USB-RS232

to PC/Laptop for COM applications

For Laptops without D-Sub RS232 connector.
For conversion of USB to RS-232 for Windows 98/ME/2000/NT/XP MAC OS 8/9 or Linux systems.
This is needed for connecting the **HygroDat 100** with the „**NovaLog 32“** software.

Such converters are also available in computer shops.

USB to RS-232 converter:

Cable length	: 100 cm
Weight	: 50 g
Connector	: D Sub-9 (COM Port)
Socket	: USB connector

Cable is supplied with driver software.

E-sensors for HygroDat 100 EC

resistive electrolytic measurement system

E-sensors are humidity and temperature measuring elements, which include a measuring cell on the basis of a liquid electrolyte, a specific humidity measurement technology developed by Novasina.

Advantages:

- Highest accuracy of the relative humidity measurement
- Very small measuring hysteresis over a large range
- High reaction speed of the measurement till about 1%rh from the final value.
- Good chemical stability and mechanical robustness
- Great advantage of stability at relative air humidity values above 90%rh
- Saturation protection by active cell heating system

Operation limits:

- Measuring range humidity : 6.....100% rh
- Basic accuracy of the CC-1 : +/- 2.0% rh
- Air velocity : 0....15m/sec. (depending on protection filter type)
- Temp. oper. range short term : -20....+80°C
- System accuracy at 25°C : +/- 0.5% rh when fully calibrated with 5 Sensor-Checks SAL-SC
- Temp. oper. range long term : -20....+70°C

Please note that the E-Sensors must be operated within their specified limits. The risk of a defect increases at high humidity levels with simultaneous vibrations or mechanical shocks. In such circumstances the electrolyte fluid becomes very aqueous and parts of it might be separated from the liquid holder due to strong shocks. This may cause wrong humidity values.

Shaft length 100mm

111 7245 HIA-11: 1.5m cable
111 7247 HIA-12: 10m cable
111 6934 HIA-13: 20m cable
111 6935 HIA-1x: up to 100m cable

HIA sensor (electrolytic)

A modern, small and light electronic sensor in a plastic housing in IP65 protection class. Includes integrated ASIC technology for optimal signal processing (temp. & rh), an exchangeable CC-1 resistive electrolytic measurement cell, a plastic membrane protective cap and a 13mm polycarbonate shaft system that can be extended during installation if required.

Accessories: 1 wall mounting clip & 1 duct mounting flange, incl. in the scope of delivery.

-> Please use Sensor Check Adapter PN 1107345 for the SAL-SC calibration kit to ensure correct sealing

HIA electronic sensor armature:

Dimensions	: 160 x 13 mm
Weight	: 100…800 g
Measurement	: rh -> resistive temperature -> NTC
Connection	: 5-wire cable (5x 0.5mm2 LiYY)
Power	: Special ASIC interface
Outputs	: 2 x Analogue (U)
Protection	: Plastic membrane filter -20°…..+80°C
Ranges	: 6.....100% (Electronic saturation protection) -20°…..+80°C

Shaft length 160mm

111 7532 HIS-11: 1.5m Cable
111 7533 HIS-12: 10m Cable
111 7534 HIS-13: 20m Cable
111 7535 HIS-1x : up to 100m
Shaft length 310mm
111 7751 HIS-23: 20m Cable
111 7752 HIS-2x: up to 100m Cable

HIS sensor (electrolytic)

A modern, robust electronic sensor in stainless steel housing in IP65 protection class. Includes integrated ASIC technology for optimal signal processing (Temp. & rh), an exchangeable CC-1 resistive electrolytic measurement cell, a stainless steel protective cap with protective membrane. The diameter 20mm sensor shaft is available in two different lengths.

Accessories: 2 wall mounting clips, incl. in the scope of delivery.

Option: duct mounting flange **not** incl. in the scope of delivery.

HIS electronic sensor armature:

Dimensions HIS-11, 12, 13:	160x20 mm
Dimensions HIS-23:	310x20 mm
Weight	: 200….1000 g
Measurement	: rh in %, resistive temperature NTC
Connection	: Standard 5-wire installation cable (5x 0.5mm2 LiYY)
Power	: Special. ASIC Interface
Outputs	: 2 x Analogue (U) ASIC Interface
Protection	: Plastic membrane filter -20°…..+80°C
Ranges	: 6.....100% (Electronic saturation protection) -20°…..+80°C

Option to E-sensors

(already included for C-sensors)

111 9621 RS-232 for HygroDat100

Interface C/E Sensor RS-232

Optional part to HygroDat 100 Transmitters equipped with E-sensors

Optional RS-232 interface for HygroDat 100 transmitter with E-sensor (HIA, HIS). This interface permits a serial data transfer to DDC, PLC or SPS controls etc..
It can be also used for the connection of the instrument to a PC running the Novasina **NovaLog 32** visualisation software.

Note: This component is already built in as a standard in HygroDat 100 transmitters with C-sensors (HIC, HICS, HICH).

RS-232 to HygroDat 100:

Dimensions	: 70 x 50 x 20mm
Weight	: ca. 50 g
Power supply	: intern. from cover electronics HD 100
RS-232	: standard level
Inputs	: 1 x E-Sensor (1 x C-Sensor)
Max. cable length for serial Interface	: 15 m
Data protocol	: ASCII string

C-sensors for HygroDat 100 EC

(digital **capacitive** measurement system)

C-sensors are measuring probes with integrated humidity and temperature measuring cell, based on a digital capacitive measuring technology. The miniaturized polymer sensor as key element is much higher integrated than other available capacitive sensors. Signals are compensated, transformed and digitalized directly inside the sensor.

Advantages:

- Maximum measuring range of the relative humidity: 0-100%rh
- Extended temperature measuring range: -40....+120°C
- Very fast reaction time to big humidity changes
- Excellent mechanical robustness.
- Protection functions against saturation (filters and heating)
- Minimized hysteresis

Operational limits:

- Accuracy at 25°C : +/- 2.0 %
  when fully calibrated with 5 Sensor-Checks SAL-SC
- Air velocity : 0....40m/sec. (depending on type of filter)
- Basic accuracy of the DCC-1 : +/- 3.5% rh.
- Long term operation : 0.....90% rh.
- Measuring-hysteresis for control loops: ca. 1.0 % rh.

Please note that the C-sensors must be operated within their specified limits. C-sensors are a little bit sensitive to chemical influences from the environment. Consequently a considerably higher drift of the humidity measurement may be the result. Therefore we recommend an additional chemical cell protection filter.

Shaft length 100mm
111 9578 HIC-1x : (incl. 1.5m)
1,5 to 30m cable
(please order the right cable length)

HIC sensor (capacitive)

Digital temperature & humidity measuring sensor with capacitive DCC-1 sensor. Fast reaction time, IP65 protection. Digital data transfer. Cable length up to 30 m possible. Protection cap with membrane filter screwed onto the polycarbonate shaft.

Accessories: 1 wall mounting clip & 1 duct mounting flange, incl. in the scope of delivery.

-> Please use Sensor Check Adapter PN 1107345 for the SAL-SC calibration kit to ensure correct sealing

HIC electronic sensor armature:

Dimension : 160 x 13 mm
incl. 1.5m cable
Weight : 100....800 g
Measuremt. : rh: capacitive DCC-1
temperature: NTC
Connection : 5-pole cable and screen
Power : special
Output : digital BIT interface
Protection : plastic membrane filter
Oper. limits : 0.....100%
-40°.....+80°C

Shaft length 160mm (incl. 1.5m)
111 9575 HICS-1x : 1,5 to 30m
Shaft length 310mm (incl. 1.5m)
111 9558 HICS-2x:1.5 to 30m cable *(pls order the right cable length)*

HICS sensor (capacitive)

Digital temperature & humidity measuring sensor with capacitive DCC-1 sensor. Fast reaction time, IP65 protection. Digital data transfer. Cable length up to 30 m possible. Protection cap with membrane filter (CS-1) screwed onto the stainless steel shaft.

Accessories: 2 wall mounting clips, incl. in the scope of delivery.

Option: duct mounting flange **not** incl. in the scope of delivery.

HICS electronic sensor armature:

Dimension : 310x20 mm
incl. 1.5m cable
Weight : 200.....1000 g
Measuremt. : rh: capacitive DCC-1
temperature: NTC
Connection : 5-pole cable & shield
Power : special
Output : digital BIT interface
Protection : plastic membrane filter
Oper. limits : 0.....100%
-40°.....+80°C

Shaft length 160mm
111 9580 HICH-11 : incl. 2m silicon cable and installation box

HICH sensor (capacitive)

Digital temperature & humidity measuring sensor with capacitive DCC-1 sensor. Special sensor armature made for extended temperature range –40...+120°C. With 2 m temp. resistant silicone cable. The complete sensor probe can be mounted in the full temperature range. Shaft and SS-2 sintered filter are made of stainless steel. Including cable and installation box.
Pore size: 0.1µm

Accessories: 1 Wall mounting flange & 1 installation box for sensor wiring included in the scope of delivery

HICH electronic sensor armature:

Dimension : 310x20 mm
Weight : 200.....1000 g
Measuremt.: rh: capacitive DCC-1
temperature: NTC
Connection : 5-pole cable and screen
Power : special
Output : digital BIT interface
Protection : rustproof sintered steel filter w/o membrane
Oper. limits : 0.....100%
-40°.....+120°C

included in the scope of delivery of a HICH-Sensor

111 9586 Installation box HICH

Installation box for HICH sensor

Part of delivery with HICH-sensor to HygroDat 100

Installation box for professional wiring of a HICH silicone sensor cable (for extended temp. range) to a screened 5 pole standard installation cable to the transmitter. This box has to be installed in a temp. area of 0...+60°C. It is standard part of the HICH sensor and is delivered together with it.

HICH cable installation box:

Dimensions : 88 x 88 x 52 mm
Weight : ca. 150 g
Connectors : 2 x 6 clamps
Protection grade: IP55 / IP65

Max. cable length 28 m between box and transmitter

111 9585 Cable extension
to C-sensors

Extension cable to C-sensor

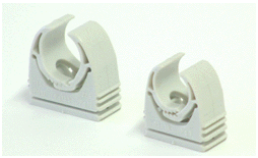
This cable shall be used as connection between the installation box and the transmitter. It has 5 wires and an additional screen. The cables are available on order, from 1m up to 28m.

Cable type: Li YYS 5 x 0.25 mm^2, with screen.

C-sensor standard cable for HIC, HICS and HICH:

Cable type : LI YYS 5 x 0.25
Conductors : 5 wires plus protection screen
Lengths : 1m up to.28 m
Colour : black
Temp. range : -20....+80°C

HIA/HIC - accessories



110 7360 Wall mounting **clips**

Wall mounting kit

A pair of wall mounting clips for an easy mounting of HIA/HIC sensors to walls with M4 wood, plastic or metal screws. The clips can be reused.

-> Clamping range: 12....16 mm

Wall mounting clip for HIA & HIC:

Material : Polycarbonate
Weight : 15 g *(each)*

Quantity : 2 units

Clamping range: 12...16 mm

111 5343 **Duct mounting kit**

Duct mounting kit

Duct mounting flange (1 unit) including O-ring seal for HIA/HIC sensors. For an easy mounting in ducts or through walls or ceilings. The flange is fixed by 3 screws and the 13 mm pass-through will stand an over-pressure of 3 bar before the seal leaks. The sensor can be removed at any time for recalibration.

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

Duct mounting kit for HIA & HIC:

Flange dimensions : 60 x 20 mm
Weight : 30 g

Clamping range : 10…14 mm

111 7330 **SF-1** filter Ø13mm

Sensor protection system SF-1

Stainless steel, sintered filter protective cap for demanding industrial requirements to a HIA/HIC sensor. Intended primarily for use in environments where protection is needed from high air speeds and/or high levels of pollution. Provides optimal mechanical protection of the sensor.

-> The *filter has a mesh size of 0.2um*

Sensor filter SF-1 for HIA & HIC:

Filter dimensions : 45 x 13 mm
Weight : 15 g

Effectiveness: Mechanical protection against particles larger than 0.2um "cellgard"

Temperature range: –20 ...+80°C

111 3675 **AF-1** filter Ø13mm

Sensor protection system AF-1

Stainless steel metal web filter protective cap for the HIA/HIC sensors, incorporating an active charcoal insert. Provides optimal protection of the measurement cell from corrosive gases and pollution in industrial environments.

-> The *filter has a mesh size of 25 um*

Sensor filter AF-1 for HIA & HIC:

Filter dimensions : 45 x 13 mm
Weight : 10 g

Effectiveness :Mechanical protection against particles larger than 25 um

Chemical protection : Nitrous oxide, oil fog, fine dust, amine, ethylene.

Temperature range: –20 ...+80°C

111 1018 **MF-1** filter Ø13mm

Sensor protection system MF-1

Stainless steel metal web filter protective cap for the HIA/HIC sensors, incorporating a membrane insert. Provides optimal protection of the measurement cell from fine dust and dirt in industrial environments.

-> The *filter has a mesh size of 0.2um*

Sensor filter MF-1 for HIA & HIC:

Filter dimensions : 45 x 13 mm
Weight : 10 g

Effectiveness : Mechanical protection against particles larger than 0.2um

Temperature range: –20 ...+80°C

111 4745 **CP-1** filter Ø13mm

Sensor protection system CP-1

Plastic protective cap for the HIA/HIC sensor, without any filter element. For rapid measurements in clean air. It includes a protective grid without any filter function but providing basic mechanical protection.

Recommendation: for use when measurement speed is important and filter protection is not necessary.

Sensor cap CP-1 to HIA & HIC:

Cap dimensions : 45 x 13 mm
Weight : 20 g

Effectiveness : limited mechanical protection

Temperature range: –20 ...+80°C

111 7505 **STCF-1** filter Ø13mm

Sensor protection system STCF-1

Stainless steel protective cap incorporating a cellgard membrane filter. For quick HIA/HIC sensor measurements in air. A robust model offering protection from larger objects in the air, but only limited mechanical protection against dust.

Recommendation: for use when measurement speed is important and filtering is not necessary.

->The filter has a 0.2 um mesh size

Sensor filter STCF-1 f. HIA& HIC:

Filter dimensions: 45 x 13 mm
Weight : 20 g

Effectiveness : Cellgard, mechanical protection from particles larger than 0.2 um

Temperature range: –20 ...+80°C

111 6812 **Weather shield**

Weather shield for outdoor applications

An effective protection from wind, rain, snow and direct sunlight for the all HygroDat 100 EC sensors. Ideal for meteorological measurements in the range of –20°....+80°C (HIA) and –40°....+80°C (HIC)

Include an cable screw sensor fixation for direct sensor installation if all 13…20mm sensors.

The shield can be quickly and easily attached to a 25.. 50 mm diameter post.

The shield is delivered with all of the necessary mounting materials.

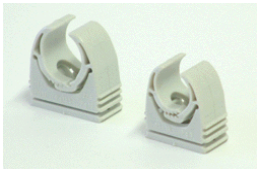
Weather shield for HIA & HIC:

Dimensions : 270 x 220 x 120 mm
Weight : 650 g

Include an cable screw for sensor fixation 13 … 20mm

Material : UV stabilised, thermoplastic slats, painted steel construction

HIS/HICS/HICH - accessories



111 7588 Wall mounting **clips**

Wall mounting kit

A pair of wall mounting clips for easy mounting of HIS/HICS sensors to walls with M4 wood, plastic or metal screws. The clips can be reused.

-> Clamping range : 18.5.....22.5 mm

Wall mounting clips for HIS & HICS:

Material : Polycarbonate
Weight : 15 g *(each)*
Quantity : 2 units.
Clamping range: 18.5...22.5 mm

111 7992 Clamping flange

Wall mounting kit 2

Wall mounting clamping flange for a very stable clamping of a HIS/HICS/HICH sensor to a wall or inside surface of a duct. The flange may be screwed or welded to the attaching surface. Suitable for extended temperature range –40…+120°C.

-> Clamping range 19....26 mm

Clamping flange for HIS, HICS & HICH:

Material : Polyamide /steel resistant from
Dimensions : 80x30x47 mm
Weight : 150 g
Clamping range : 19...26 mm

Extended temperature range: –40 ... +120°C

111 7538 Duct mounting flange

Duct mounting kit

Duct mounting flange for easy, sealed mounting in ducts or through walls or ceilings. The flange is fixed by 3 screws and O-rings are provided. The 20 mm pass-through will stand an over-pressure of 5 bar before the seal leaks. The sensor can be removed at any time for recalibration or testing.

-> Clamping range: 19 .... 24 mm

Duct mounting kit for HIS, HICS & HICH:

Material : Polycarbonate/rubber resistant from
Flange dimensions : 60 x 20 mm
Weight : 100 g
Clamping range : 19…24 mm

Temperature range: –20 ...+80°C

111 7183 SS-1 filter diam. 20mm

Sensor protection system SS-1

Stainless steel, sintered filter protective cap for demanding industrial requirements to the HIS/HICS sensors. Intended primarily for use in environments where protection is needed against high air speeds and/or high levels of pollution. Provides optimal mechanical protection of the sensor.

-> The filter has a mesh size of 0.2 um

Sensor filter SS-1 for HIS, HICS :

Dimensions Filter : 50 x 20 mm
Weight : 35 g

Effectiveness: Mechanical protection against particles larger than 0.2 um

Temperature range: –20 ...+80°C

For HICH sensors

111 9600 SS-2 filter diam. 20mm

Sensor protection system SS-2

Filter protection cap for HICH sensors. Made of stainless, sintered steel. Intended primarily for use in environments where protection is needed against high air speeds and/or high levels of pollution. Provides optimal mechanical protection of the sensor. No splash water protection!

-> The sinter filter has a mesh size of 10 um

Sensor filter SS-2 for HICH:

Dimension: 50 x 20 mm
Weight : 30 g
Effectiveness : Mech. protection down to particle size 10 um

Extended temperature range: –40 ... +120°C

111 7524 TS-1 filter diam. 20mm

Sensor protection system TS-1

Metal web filter with Cellgard

Stainless steel metal web filter protective cap for the HIS/HICS sensors, incorporating a membrane insert. Provides optimal protection of the measurement cell against pollution in industrial environments.

-> The filter has a mesh size of 0.2 um

Sensor filter TS-1 for HIS & HICS:

Filter dimensions : 50 x 20 mm
Weight : 30 g

Effectiveness: Mechanical protection against particles larger than 0.2 um

Temperature range: –20 ...+80°C

111 9597 **TS-2** filter diam. 20mm

Sensor protection system TS-2

Mesh filter without membrane, for extended temp.range

Stainless steel metal mesh filter protection cap without membrane for HICH sensors. Good protection of the measuring cells against mechanical pollution in industrial environments.

-> The filter has a mesh size of 25um

Sensor filter TS-2 for HICH :

Dimension : 50 x 20 mm

Weight : 30g

Effectiveness: Mech. protection down to particle size 25 um

Extended temperature range : –40 ... +120°C

111 7525 **AS-1** filter diam. 20mm

Sensor protection system AS-1

Metal web filter

Stainless steel metal web filter protective cap for HIS/HICS sensors, incorporating an active charcoal insert. Provides optimal protection of the measurement cell from corrosive gases and pollution in an industrial environment.

-> The filter has a mesh size of 10um

Sensor filter AS-1 for HIS&HICS:

Filter dimensions : 50 x 20 mm
Weight : 30g

Effectiveness: Mechanical protection against particles larger than 10um

Chemical protection : Nitrous oxide, oil fog, fine dust, amine, ethylene

Temperature range: –20 ...+80°C

111 8965 **AR-1** “Redox” filter

Sensor protection system AR-1 Redox

Stainless steel, metal web filter protective cap for HIS/HICS sensors. The built-in Redox granulate filter provides optimal protection from corrosive gases in the pharmaceutical industry.

-> The filter has a mesh size of 12um

Sensor filter AR-1 “Redox” for HIS & HICS :

Filter dimensions : 50 x 20 mm

Weight : 35g

Effectiveness: Mechanical protection against particles larger than 12um

Temperature range: –20 ...+80°C

111 6812 **Weather shield**

Weather shield for outdoor applications

An effective protection against wind, rain, snow and direct sunlight for the HIS/HICS sensors. Ideal for meteorological measurements in the range of –20°....+80°C (HIS) and –40°....+80°C (HICS)

The shield can be quickly and easily mounted to a 25.. 50 mm diameter post.

->The shield is delivered with all of the necessary mounting materials.

Weather shield for HIS & HICS :

Dimensions : 270 x 220 x 120 mm

Weight : 650 g

Material : UV stabilized, thermoplastic slats, painted steel construction

included in the scope of delivery of HICH sensor

111 9586 **Installation box**

Installation box to HICH sensor

Part of delivery with HICH-sensor to HygroDat 100

Installation box for professional wiring of a HICH silicone sensor cable (for extended temp. range) to a screened 5 pole standard installation cable to the transmitter. This box has to be installed in a temp. area of 0...+60°C. It is standard part of the HICH sensor and is delivered together with it.

HICH cable installation box:

Dimensions : 88 x 88 x 52 mm
Weight : ca. 150 g
Connectors : 2 x 6 clamps
Protection grade: IP55 / IP65

Max. cable length 28 m between box and transmitter

Sensor-Checks SAL-SC *(rh standards)*

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SC are obtainable for the following values (at 25°C) :

11.3 % rh colour white
32.8 % rh colour blue
52.9 % rh colour green
57.6 % rh colour white
75.3 % rh colour purple
84.3 % rh colour white
90.1 % rh colour white
97.3 % rh colour yellow

Important: please consult the operation manual of your instrument to see which points can be calibrated. Other SAL-SC can be used for verification.

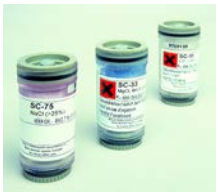
111 0885 -> **SAL-SC 11**
111 0855 -> **SAL-SC 33**
111 0857 -> **SAL-SC 53**
260 0219 -> **SAL-SC 58**
111 0859 -> **SAL-SC 75**
251 8965 -> **SAL-SC 84**
111 0896 -> **SAL-SC 90**
251 8966 -> **SAL-SC 97**

Humidity values in the temperature range 15° .... 30°C:

11.3 ..... 11.3% rF / 15....30°C
33.3 ..... 32.4% rF / 15....30°C
55.9 ..... 51.4% rF / 15....30°C
60.7 ..... 56.0% rF / 15....30°C
75.6 ..... 75.1% rF / 15....30°C
85.9 ..... 83.6% rF / 15....30°C
90.9 ..... 89.9% rF / 15....30°C
97.9 ..... 97.0% rF / 15....30°C

The precision corresponds to the Greenspan Report 1977
typically +/- 0.3 % rh

Weight : 90 g



Sensor-Checks SAL-SC with European certificate

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SAL-SC are obtainable for the following values (at 25°C) :
11.3 % rh colour white
32.8 % rh colour blue
52.9 % rh colour green
75.3 % rh colour purple
90.1 % rh colour white

111 1044 -> **SAL-SC 11 C**
111 1037 -> **SAL-SC 33 C**
111 1040 -> **SAL-SC 53 C**
111 1035 -> **SAL-SC 75 C**
111 1032 -> **SAL-SC 90 C**

Internationally accredited laboratory

All Novasina humidity standards can also be supplied with an internationally recognised certificate from an accredited European laboratory (UKAS England).

Weight : 90 g

*Hygro*Dat 100 certification

by an accredited European laboratory (UKAS)

A UKAS-laboratory certifies the instrument at two or more humidity and several temperature values if required.

Prices on pricelist for air products

Internationally accredited laboratory

Certified instruments can be supplied.

Set with 5 Sensor-Checks SAL-SC

Humidity standards based on saturated salt solutions in plastic cylinders with moisture permeable membranes. Each salt is delivered in a well-sealed box. Sensor Checks SAL-SC are obtainable for the following values (at 25°C) :
11.3 % rh colour white
32.8 % rh colour blue
52.9 % rh colour green
75.3 % rh colour purple
90.1 % rh colour white

111 7847 **Check set** *(standard)*
111 7841 **Empty case** for set

Case with all 5 Sensor Checks from 11 to 90%rh:
Humidity values in the temperature range 15°... 30°C :

11.3 ..... 11.3% rh
33.3 ..... 32.4% rh
55.9 ..... 51.4% rh
75.6 ..... 75.1% rh
90.9 ..... 89.9% rh

The precision corresponds to the Greenspan Report 1977
typically +/- 0.3 % rh

Weight : 900 g

SAL-SC Sensor check adapter CH

for sensors with diameter 13 mm

This adapter is needed for calibration of a system with sensor diameter 13 mm. It ensures an airtight fixation of a SAL-SC check to the sensor top (measurement cell area). It reduces the diameter of 20 mm to 13 mm and ensures an airtight seal.

-> The adapter should be first mounted on the sensor top and then putted the SAL-SC check on it. Both seals should be carefully checked, leaks will bias the calibration.

110 7345 Adapter **CH**

CH adapter to SAL-SC salts for sensors with diameter 13 mm:

Dimensions : 30 x 13 mm
Material : Polycarbonate, rubber

Weight : 5 g

111 1302 Styrofoam box for SC

Thermal insulation styrofoam box

For the SAL-SC sensor checks

A styrofoam box providing optimal insulation and temperature stabilisation of a SAL-SC check during the calibration procedure. Consisting of two half-covers for simple temporary mounting.

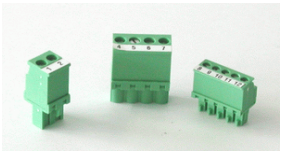
-> Can be used together with the SAL-SC calibration kit for optimal thermal protection during calibration

Styrofoam box for the SC check:

Dimensions : 100 x 65 x 50 mm
Weight : 10 g

Material : thermal insulating styrofoam PPE

Spare parts



111 8973 plug set E-Sensor

Set of plugs

for the HygroDat 100 24V

A set of three different replacement plugs for the HygroDat 100 transmitter.

Consists of:
- sensor plug 5 pin screw system
- 5 pin screw system
- power plug 2 pin screw system

Transmitter plug set:

Sensor plug : 5-Pol. 3.72 mm
AO-plug : 5-Pol. 5.08 mm
Power plug : 3-Pol. 5.08 mm

Weight : 15 g

Quantity : Set of 3 plugs

110 7355 CF-1 HIA, HIC filter

Standard filter CF-1

Plastic protective cap with a membrane filter element for the use of HIA/HIC sensors in standard HVAC applications. Limited mechanical protection and filtering.

Recommendation: A protective cap for general protection in relatively clean environments and air speeds of less than 5 m/s.

Sensor filter CF-1 for HIA & HIC :

Filter dimensions : 45 x 13 mm
Weight : 15 g

Effectiveness : Mech. protection, small particles, water drops

Temperature range: –20 ...+80°C

-> This filter is included with theHIA/ HIC sensor. The filter has a mesh size of 0.2 um

111 7523 CS-1 HIS,HICS filter

Sensor protection system CS-1

Filter protective cap for the HIS/HICS sensor, incorporating a membrane filter protecting against water drops and small particles. Intended for fast measurements in normal air.

Provides only limited mechanical protection.

-> The filter has a mesh size of 0.2 um

Sensor filter CS-1 for HIS & HICS:

Dimensions Filter : 50 x 20 mm
Weight : 30 g

Effectiveness : Mech. protection

Temperature range: –20 ...+80°C

111 3828 CC-1 normal
111 6260 CC-1 silicon free

CC-1 measurement cell

Resistive electrolytic humidity and temperature cell

High precision humidity and temp. measurement cell for the range 6 ...100 % rh with integrated saturation protection and special NTC temp. measurement element for the range –20°....+80°C.
The measurement cell has a 2 x 3 pin plug and a special filter system to protect the sensing element.

Attention: Never touch the front part of the sensor with your finger or any other hard object.

CC-1 measurement cell:

Dimensions : 35 x 7 x 6 mm
Weight : 2 g

Type : Resistive electrolytic measurement principle

Ranges : 6.....100%
Electronic saturation protection
-20°.....+80°C

111 9590 DCC-1 digital capacitive cell, silicone based

DCC-1 measurement cell

Digital capacitive humidity and temperature measurement cell

Very robust humidity and temperature cell for the range of 0...100 % rh with integrated NTC element for temperature measurement in the range -40°...+120°C. The DCC-1 cell has an 5 Pin female connector system.

Attention: Never touch the front part of the sensor with your finger or any other hard object.

DCC-1 measurement cell:

Dimensions : 35 x 7 x 6 mm

Weight : 2 g

Hum. Measurement principle : : digital capacitive humidity cell silicone chip based

Ranges : 0.....100%
-40°.....+120°C

111 9621 **RS-232** for HygroDat100

Interface C/E Sensor RS-232

Optional part to HygroDat 100 Transmitters equipped with E-sensors

Optional RS-232 interface for HygroDat 100 transmitter with E-sensor (HIA, HIS). This interface permits a serial data transfer to DDC, PLC or SPS controls etc..
It can be also used for the connection of the instrument to a PC running the Novasina **NovaLog 32** visualisation software.

Note: This component is already built in as a standard in HygroDat 100 transmitters with C-sensors (HIC, HICS, HICH).

RS-232 to HygroDat 100:

Dimensions : 70 x 50 x 20mm
Weight : ca. 50 g
Power supply: intern. from cover electronics HD 100
RS-232 : standard level
Inputs : 1 x E-sensor
1 x C-sensor
Max. cable length for serial Interface : 15 m
Data protocol : ASCII string

111 9586 **Installation box**

Installation box for HICH sensors

Part of delivery with HICH-sensor to HygroDat 100

Installation box for professional wiring of a HICH silicone sensor cable (for extended temp. range) to a screened 5 pole standard installation cable to the transmitter. This box has to be installed in a temp. area of 0...+60°C. It is standard part of the HICH sensor and is delivered together with it.

HICH cable installation box:

Dimensions : 88 x 88 x 52 mm
Weight : ca. 150 g
Connectors : 2 x 6 clamps
Protection grade: IP55 / IP65

Max. cable length 28 m between box and transmitter

260 0951 **cable screw**

Cable screw for sensor fixation on weather shield

For all HIA / HIC / HIS / HICS / HICH sensors

Sparte part mounting flange for fixation of all types of sensors (13…20mm diameter) to a weather shield. Enables the easy removal of the sensor at any time for test and recalibration.

-> Suitable for all HygroDat 100 sensors with 100….310mm shaft lenght

Cable screw for 13…20mm sensor:

Dimensions : 100 x 35 mm
Inner diameter : 13…20mm

Weight : 280 g

Material : UV stabilised, thermoplastic material with UNF threads

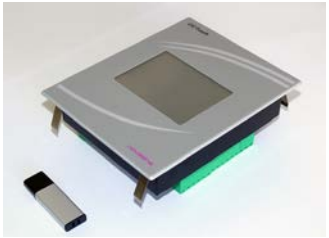
CIC-Touch

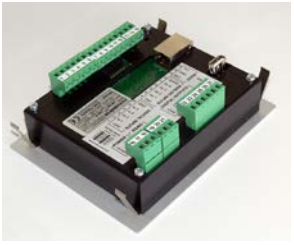
This multi display for clean room air parameters such as air humidity, temperature, differential pressure and particles allows to check at a glance the actual climatic parameters in clean rooms. The online data are provided by external sensors and/or contact relays. Besides the actual measurement value, which is shown with the respective unit (e.g. temperature, humidity etc.) and measurement location, also the backlight colour changes according to the actual status. Green colour for values within the threshold and red colour if the threshold is exceeded.

The CIC-Touch display can be easily mounted in clean room walls without the need of any screws. The unit can be placed in a wall cavity, snapped in and fixed with clips, which are part of the display unit itself. Thanks to the consequent clean room suitable design, the installation depth is very low and hence the unit fits in all current clean room walls. The smooth front panel complies with the demands of clean room design, is therefore ideal to be cleaned and has no edges subject to be polluted by dust or any dirt.

Another highlight of the CIC-Touch is the connectivity such as analogue/digital interfaces, contact relays, ethernet, USB, Modbus, RS-232, RS-485 and a SD card. The CIC-Touch can be easily connected to any external sensor and also integrated in existing monitoring systems. The configuration is performed via the intuitive operation and configuration menu.

The CIC-Touch can also be factory configured for specific OEM applications.





Applications:
- **Clean rooms**
- **Isolators**
- **Laminar flow benches**
- **Operating rooms**
- **Laboratories, calibration rooms**
- **Specific OEM solutions**

Industries:
- **Semiconductor**
- **Pharmaceutical**
- **Hospitals**
- **OEM**

Your advantages:
- Semi-flush with the wall, no sharp edges, front panel only 2 mm thickness
- Easy to clean, flat and smooth surfaces
- Low installation depth and ideal for integration in all current clean room walls
- Snap-in mounting without any screws
- Display of up to 4 parameters at the same time
- Status display with status backlight colour
- Easy configuration by intuitive menu
- Several integrated communication interfaces

260 0941 CIC-Touch display

CIC-Touch touchscreen display

Recommended ambient sensors to be connected:

Air humidity and temperature:
- HygroDat 100 (this catalogue on page 21)
- HygroMaxx S/R/M (this catalogue on page 10)
- TempMaxx (this catalogue on page 17)

Differential pressure:
- Pascal-ST/Z (dP catalogue on page 8)
- PascalMaxx (dP catalogue on page 12)

Remark: CIC-Touch is an universal display and any sensor can be connected, it can also be used for installation in existing sensor networks.

Specifications:

Display:	graphical display 3,5“ TFT display 70x52mm
Panel:	150 x 120 mm (H2O2 res.)
Mounting dimension:	H 127 x W 107 x D 50mm. incl. connectors
Power supply:	24 V AC/DC
Inputs:	4 x digital inputs 4 x analogue inputs
Outputs:	2 x relay contacts 230V
Digital interfaces:	ethernet Modbus (RS-485)
USB:	standard PC compatible

Instrument	Parameter	Industry	Applications	Main features
HygroDat 100 	RH/T	• Pharmaceutical • Textile/Paper • Chemical • Medical • Health Care • Semiconductor • Power Plants • Building industry • Food • Agriculture	• Clean Rooms • Operating rooms • Combustion processes (gas turbines) • Drying processes • Meteorological stations • Demanding HVAC controls • Painting processes • Food process and storage • Green houses with high RH levels • Mining and tunnel building • Calibration labs • Specific OEM applications	• High accuracy • Highest repeatability • Low hysteresis • Fast response time • Climate parameter calculation • 2 scalable/adjustable analogue outputs • RS-232 interface • Fieldbus interface • 5 point RH calibration • Sensor protection filters for aggressive air • Password protection
HygroMaxx S/R/M 	RH/T	• Building Industry • Pharmaceutical • Agriculture • Medical • Food	• Generic HVAC installation • Packaging industry • Laboratories (food, pharma) • Storages • Archives, museums • Printing processes	• Good accuracy for HVAC applications • Big clear display • 2 scalable analogue outputs • Calibration at 3 points RH & 1 point T • Intuitive menu structure • Easy to start-up and mounting • 3 models for room, duct and remote use • Password protection
TempMaxx 	T	• Building Industry • Pharmaceutical • Agriculture • Medical • Food	• Generic HVAC installation • Packaging industry • Laboratories (food, pharma) • Storages • Archives, museums • Printing processes	• High flexibility in connections of external probes 2-, 3-,4-wire (PT, Ni, NTC) • Big clear display • 1 scalable analogue output • 1 relay contact • Calibration at 2 points T • Intuitive menu structure • Easy to start-up and mounting • Password protection
StatMaxx S/R/M 	RH/T	• Building Industry • Pharmaceutical • Agriculture • Medical • Food	• Generic HVAC installation • Monitoring systems • Packaging industry • QA-laboratories • Laboratories (food, pharma) • Storages • Archives, museums • Printing processes	• Good accuracy for HVAC applications • Big clear display • 1 relay contact • UMB Bus interface • Calibration at 3 points RH & 1 point T • Intuitive menu structure • Easy to start-up and mounting • Password protection

Instrument	Parameter	Industry	Applications	Main features
HygroGuard 30 	RH/T	• HVAC • Pharmaceutical • Building Industry • Food • Hospitals • Semiconductor • Logistics	• Generic HVAC installation • QA-laboratories • Container shipping • Storages • Archives, museums	• Battery powered > 1 year life time • Big clear LCDisplay • Big internal memory (3'200'000 data points) • Data storage and visualisation software included with data cable • USB power supply as option • Calculation of dew point / absolute humidity
DataLog 30 	RH/T various	• HVAC • Pharmaceutical • Building Industry • Food • Hospitals • Semiconductor • Logistics	• Generic HVAC installation • Monitoring systems • Packaging industry • QA-laboratories • Laboratories (food, pharma) • Storages • Archives • Museums • Printing processes	• Battery powered > 1 year life time • Big clear LCDisplay • Big internal memory (3'200'000 data points) • Data storage and visualisation software included with data cable • 2 analogue interfaces (voltage/current) • 8 UMB bus interfaces • USB power supply as option • Calculation of dew point / absolute humidity
ClimaLog 30 	RH/T/ absolute air pressure	• HVAC • Pharmaceutical • Building Industry • Food • Hospitals • Semiconductor • Logistics	• Generic HVAC installation • QA-laboratories • Container shipping • Storages • Archives • Museums	• Battery powered > 1 year life time • Big clear LCDisplay • Big internal memory (3'200'000 data points) • Data storage and visualization software included with data cable • USB power supply as option • Calculation of dew point / absolute humidity
HygroMate 	RH/T/ dew point temperature	• HVAC • Pharmaceutical • Building Industry • Hospitals • Semiconductor • Logistics	• Generic HVAC installation • QA-laboratories • Storages • Archives • Museums	• Battery powered • Big clear LCDisplay • RH calibration at 2 points and temperature calibration at 1 point • Easy operation with thumb wheel • Backlight and AutoOff function
CIC-Touch 	Universal touchscreen display	• Pharmaceutical • Semiconductor • Chemical • Medical • Health Care • Hospitals	• Clean rooms • Isolators • Laminar flow benches • Operating rooms • Laboratories, calibration rooms • Specific OEM solutions	• Semi-flush mounting • Easy to clean • Low installation depth • Snap-in mounting • Display of up to 4 parameters • Status display with status backlight colour • Easy configuration • Several integrated communication interfaces