



HygroMaxx R / S / M



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 **HygroMaxx** 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 **HygroMaxx** is available in different versions for room and duct measurement.

Rel. air humidity	:	0...100% RH
Temperature	:	-20...80°C (sensor) -5...60°C (transmitter)
Accuracy	:	± 2.0% RH at 10...80% RH and 0...50°C ± 0.5°K at 0...50°C / 0.8°C at -20...80°C
Signal output	:	2 analog 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	:	unit switch-over °C / °F, scalable analog outputs, adjustment at 3 humidity points / 1 temperature point, moving average display ¼, 1, 3 hours, password protection
Adjustment	:	checkable and adjustable at any time at 3 RH points using the proven Novasina humidity standards SAL-SC
Measurement principle	:	digital capacitive CMOS-Sens® technology



HygroMaxx R/S/M for HVAC applications

For monitoring and controlling

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

The **HygroMaxx** 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).

Typical 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 the food & pharma industry

Measurement instrument **HygroMaxx**:

Dimension : 110 x 118 x 50mm
Power supply : 24 V DC ± 10%

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 (10...30°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

HygroMaxx R / S / M



252 3054 *HygroMaxx S*

HygroMaxx 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 *HygroMaxx S*:

Dimension: 110 x 118 x 50mm
Probe: diameter 13 x 58 mm
Weight: 220 g
Power supply: 24 VDC + 10%
Power consumption: DC max. xx W
Outputs: 2 x analog 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 *HygroMaxx R*

HygroMaxx 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 *HygroMaxx R*:

Dimension: 110 x 118 x 50mm
Probe: diameter 13 x 250 mm
Weight: 280 g
Power supply: 24 VDC + 10%
Power consumption: DC max. xx W
Outputs: 2 x analog 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 3130 *HygroMaxx M*

HygroMaxx M

Humidity/Temp.measurement instrument with remote probe

HVAC transmitter with aesthetic design, robust, two-part plastic housing. The remote sensor probe 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 analog 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 *HygroMaxx M*:

Dimension: 110 x 118 x 50mm
Probe: diameter 13 x 250 mm
Weight: 200 g
Power supply: 24 VDC + 10%
Power consumption: DC max. xx W
Outputs: 2 x analog 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



Fühlerlänge 230 mm:
252 3133 *SensMaxx 13*
3m Kabel

SensMaxx 13

for HygroMaxx M version

Small and robust humidity/temperature sensor with stainless steel housing including membrane protection filter with IP65 protection. Diameter 13mm including 3m shielded cable. Please follow the specific installation manual for connection to the transmitter unit.

Options: 1 pc flange for duct mounting
1 pc flange for wall mounting

SensMaxx 13 :

Dimension: diameter 13 x 150mm
Weight: 80 g
Material: stainless steel
Measurement: RH-digital capacitive
Temp. PN silicon[®]
Hum. meas. cell: CMOS Sens[®]
Connection: 5-pole cable 3m
with EMC shield
Protection: membrane filter (IP 65)
Meas.range: 0...100% / -20...+80°C



Accessories to HygroMaxx



252 4468 Wandmontage Clip

Wall mounting kit 13 mm

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

-> Diameter fixation range: diam. 12...16 mm

Wall mounting clip SensMaxx:

Material : polycarbonate
Quantity : 2 pcs
Installation range diam. 12...16 mm
Weight : 15 g



111 5343 Kanalmontage-Kit

Duct mounting kit

Duct mounting flange (1 pc) for **SensMaxx 13** probes. For easy and tight mounting to ducts or through walls/ceilings including a sealing O-ring. The installation is made with 3 screws. The 13 mm tight flange aperture tolerates a max. overpressure of 3 bars. The sensor probe can be removed at any time for adjustment.

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

Duct mounting kit SensMaxx:

Dimension : 60 x 20 mm
Weight : 30 g
Installation range : diam. 9...14 mm



111 6812 Wetterschutzschild

Weather shield for outdoor applications

An effective protection against wind, rain, snow and direct sunlight for the HS sensor. Ideal for meteorological measurements in the range -20°+80°C.

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 SensMaxx:

Dimensions : 270 x 220 x 120 mm
Weight : 650 g
Material : UV stabilised, thermoplastic slats, painted steel construction



- 111 0885** -> SAL-SC 11% rF
- 111 0855** -> SAL-SC 33% rF
- 111 0857** -> SAL-SC 53% rF
- 111 0859** -> SAL-SC 75% rF
- 111 0896** -> SAL-SC 90% rF

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) :

SAL-SC	11.3 % rh	colour	white
SAL-SC	32.8 % rh	colour	blue
SAL-SC	52.9 % rh	colour	green
SAL-SC	75.3 % rh	colour	purple
SAL-SC	90.1 % rh	colour	white

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 : 90 g



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

Sensor-Checks SAL-SC EU 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) :

SAL-SC	11.3 % rh	colour	white
SAL-SC	32.8 % rh	colour	blue
SAL-SC	52.9 % rh	colour	green
SAL-SC	75.3 % rh	colour	purple
SAL-SC	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) :

SAL-SC	11.3 % rh	colour	white
SAL-SC	32.8 % rh	colour	blue
SAL-SC	52.9 % rh	colour	green
SAL-SC	75.3 % rh	colour	purple
SAL-SC	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% 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



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 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.

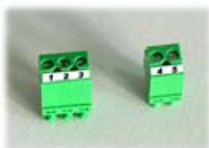
-> Can be used together with the SAL-SC calibration kit for optimal thermal protection during calibration

Styrofoam box for the SC check:

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

Material : thermal insulating styrofoam PPE

Spare parts to *HygroMaxx*



252 3134 Spare part plug set
HygroMaxx R/S/M

Spare plugs to *HygroMaxx* R/S/M

Spare plug set for *HygroMaxx* R/S/M PCB, for power supply and analog outputs.

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

Spare plug set for *HygroMaxx*:

Plug : 2 pole 3.84 mm for power supply
3 pole 3.84 mm for analog outputs

Weight : total 20 g



252 3131 room sensor for
HygroMaxx S

Spare room sensor for *HygroMaxx* S

Spare sensor for *HygroMaxx* S. The sensor can be replaced by un-tighten the 2 screws in the cover and unplug the RJ 11 connection.

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

Spare sensor for *HygroMaxx* S :

Dimension : 58 x 13 mm

Cable : 150mm with RJ 11

Weight : 15 g

Housing : stainless steel with membrane protection filter



252 3132 duct sensor for *HygroMaxx R*

Spare duct sensor for *HygroMaxx R*

Spare sensor for *HygroMaxx R*. The sensor can be replaced by un-tighten the 2 screws in the cover and unplug the RJ 11 connection.

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

Spare sensor for *HygroMaxx R* :

Dimension : 250 x 13 mm
Cable : 150mm with RJ 11
Weight : 80 g
Housing : stainless steel with membrane protection filter



probe length 250 mm:
252 3133 *SensMaxx 13*
with 3m cable

Spare remote sensor for *HygroMaxx M*

Spare sensor for *HygroMaxx M*. This sensor can be replaced including the cable.

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

Spare sensor for *HygroMaxx M* :

Dimension : 150 x 13 mm
Cable : 3m 5-pole with shield
Weight : 140 g
Housing : stainless steel with membrane protection filter



252 3135 housing bottom *HygroMaxx*

Housing lower half for *HygroMaxx*

As spare part for damaged housings.

Spare housing bottom for *HygroMaxx* :

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

Options to *HygroMaxx R/S/M*



252 4210 power supply
24V EUR

External power supply 90...260VAC/EUR

External primary power supply, for voltage range 90 to 260 VAC with Euro plug system.

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

Technical data:

Primary side :
Voltage range: 90 ... 260VAC
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...260VAC / US/JP

External primary power supply, for voltage range 90 to 260 VAC with US/Japan plug system.

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

Technical data:

Primary side :
Voltage range: 90 ... 260VAC
US/JP plug

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

Cable ends unshielded and ready for connection.

Weight: 110 gr



[252 4212](#)

Factory calibration HygroMaxx R / S / M

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 of the system

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](#)

Certification of HygroMaxx R / S / M

in a 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 :



Novasina offers the possibility to buy UKAS certified measuring instruments.