

NOVATRON HygroDat 100



A precise and robust humidity and temperature measurement instrument for control and regulation of industrial processes, as well as monitoring and data recording in the process control field.

Relative humidity	:	6...100% rh (electronic saturation protection)
Temperature	:	-20...80°C (sensor environment)
Accuracy	:	+/- 0.5% rh 11...95% rh bei 25°C Basis - 5-point calibration with SC-Set +/- 0.2°K 0...50°C (32...122°F)
Data output	:	2 freely scalable analogue outputs U : 0...10V : 2...10V / I : 0...20mA : 4...20mA for temperature and relative humidity, T _p , enthalpy, water content. CAN digital bus system with the CANopen protocol supporting up to 127 H-100 instruments An RS 232 interface for other bus protocols is under development
Climate computer	:	The instrument can be switched to all ISO and US units, <ul style="list-style-type: none"> • Air temperature °C -> °F • Relative humidity % rh • Dewpoint temperature °C -> °F • Specific enthalpy J/kg -> btu/lb • Mixing ratio g/Kg -> grn/lb



HygroDat 100

The new standard for humidity and temperature measurement in industry, offering unsurpassed precision

The new multi-talented system, combining the latest electronics with highly reliable software architecture and an unsurpassed resistive electrolytic humidity measurement cell in a single package. This simplifies all phases of application for the customer, installation, operation, service and calibration. The appropriate industrial design and the various combinations of transmitters and sensors make it possible to provide the right price/performance solution for every application. The transmitter can now be installed up to 100m from the sensor. The length of the standard installation cable is of little consequence. It can be shortened and subsequently extended as required.

A variety of hard- and software functions ideally complete the instrument. These include; free scalability of the analog outputs, easy recalibration using Novasina's saturated salt solutions (SC Set), switching of ISO units, as well as an integrated climate computer, (Hx-diagram). Calibration alarm and password protection are also available.

Typical applications for the **HygroDat 100 System**:

- 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

Measurement instrument HygroDat 100

Polycarbonate Transmitter:

Dimensions	: 140 x 180 x 71mm
Power	: 24 V AC / DC 90...230V AC 50/60Hz

Aluminium Transmitter :

Dimensions	: 130 x 180 x 66.5mm
Power	: 24 V AC / DC 90...230V AC 50/60Hz

Humidity measurement:

Resistive electrolytic measurement cell	
Measurement range:	6...100 % rh
Repeatability	: +/- 0.3 % rh
Precision	: +/- 0.5 % rh
(Based on 5-point calibration with SC at 25°C)	

Temperature measurement:

High precision NTC resistance element	
Measurement range :	-20...80°C
Reproduzierbarkeit	: +/- 0.1 K
Precision	: +/- 0.2 K (-20°...+80°C)

Sensor Checks SC:

Humidity standards based on saturated salt solutions in plastic cylinders with a moisture permeable membrane.

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