

ClimMate/nSens-HT

MULTI-FUNCTION INSTRUMENT FOR HUMIDITY/TEMPERATURE MEASUREMENT



Mobile and precise measurement of relative humidity and temperature



SET CONTAINS:

- 1 carrying case for handheld device and probes
- 1 handheld operation/display device ClimMate
- 1 nSens-HT-ENS probe incl. nLink-UMB adapter
- 1 nSens cable extension 2m
- 1 USB-cable 1.8m
- 4 batteries alkaline LR6 AA, 1,5V
- 2 humidity standards Novasina SAL-SC 33 & 75%RH
- 1 adapter SAL-SC for nSens probes
- 1 short operating manual
- 2 calibration certificates (abs.press / rel.hum. / temp.)
- 1 x SmartGraph III PC software on CD



Product description

ClimMate display & operation unit

Versatile measurement instrument for detection and display of parameters such as air humidity, temperature, absolute pressure, airflow, volumetric flow rate, CO₂, water activity and more.

The standard set consists of a nSens-HT humidity-temperature probe and can be optionally extended. The display and operation device includes a big colour touch-screen, an intuitive menu structure and an integrated data logger function with 2 million data point storage. The ClimMate device can be connected to a PC by a USB interface and data can be downloaded, displayed and exported with the SmartGraph III software. This instrument is powered by 4 standard AA LR6 alkaline batteries or alternatively with a USB power supply unit.

nSens-HT humidity-temperature probe

An integral component of the system is the digital nSens-HT humidity/temperature probe which works over the whole measurement range with high accuracy and linear response characteristic. The calibration data are stored directly onto the sensor. The verification/calibration is performed by PC using the nSoft-CAL software. These plug-in probes are quickly replaced and the newly calibrated system may be put back into use again quickly, maintaining highest accuracy.

Characteristics

ClimMate unit

- Colour touch-screen display with cursor
- Data logging capability with 2 million data points storage
- Climatic calculator
- Integrated absolute pressure sensor
- Various external probes available, e.g. CO₂; airflow etc.
- Battery powered or by USB power supply

nSens-HT probe

- Highest accuracy
- Linear response characteristic
- Hysteresis free
- Intelligent, digital with calibration data storage
- Plug & Play

Applications

- Building controls
- HVAC plants
- Process industry (e.g. chemical, pharmaceutical, semiconductor etc.)
- Paper-/textile industry
- Building/construction maintenance
- Storages, warehouses
- Archives, libraries
- Museums
- Calibration laboratories
- Test benches
- and many more...

Technical data

Operation / display unit	ClimMate - multifunction handheld measuring instrument
Power supply	4 x 1.5VDC alkaline batteries or USB +5V power supply unit
Power consumption	approx. 400 mW, battery lifetime approx. 1 year, configurable Auto-Off
Display	Graphic display TFT 240 x 320, capacitive touch display
Dimensions / Weight	External dimensions: W62 x D34 x H170 mm (without probe) Weight: approx. 200 gr
Measuring parameters	relative humidity; temperature (nSens-HT): accuracy see below abs.press. 800-1100mbar (integrated): accuracy @25°C +/-0.5mbar calculated parameters: mixing ratio; water vapor pressure; dew point temperature, abs. humidity; wet bulb temp.; water activity etc.
Interfaces	USB for connection to PC / UMB for connection of external probes
Protection class	IP54
Operating temperature	0 to 50°C
Storage temperature	-20 to +80° C



Probe	nSens-HT-ENS / combined humidity-temperature sensor		
Measurement ranges	Humidity	0 ... 100% RH	
	Temperature	-20 ... +80°C	
Measurement accuracy incl. reproducibility and hysteresis	Humidity	15 ... 30°C	typical +/- 0.5% RH
		0 ... 50°C	typical +/- 0.8% RH
	Temperature	-20 ... +80°C	typical +/- 2.5% RH
		0 ... +70°C	typical +/- 0.1K
Number of calibration points	Humidity	13 points over full measurement range	
	Temperature	2 points over full measurement range	
Housing material	PVDF black		
Sensor protection	nCap-PS Polyethylene / silver oxide filter protection cap		
Operating temperature	-20 to +80°C		
Storage temperature	-10 to +60° C (non-condensing)		



	nSens-T-NBS / temperature sensor		
Measurement ranges	Temperature	-20 ... +80°C	
Measurement accuracy incl. reproducibility and hysteresis	Temperature	0 ... +70°C	typical +/- 0.1K
		-20 ... +80°C	typical +/- 0.2K
	Number of cal. points	2 points over full measurement range	
Housing material	PVDF black		
Sensor protection	nCap-E protection cap		
Operating temperature	-20 to +80°C		
Storage temperature	-10 to +60° C (non-condensing)		



Other external probes



CO₂ / rel. humidity (capacitive) / airflow

Accessories



nSoft-CAL calibration software / humidity generators

Further information can be found in the Novasina general catalogue