

# QuantaDat / nSens



## YOUR ADVANTAGES:

### **Multisensor technology**

*Transmitter manages several sensors*

### **Unique measurement accuracy**

*+/- 0.5% RH and +/- 0.1K*

### **Process optimal measurement technology**

*for stable & energy saving processes*

### **Ideal measurement characteristics**

*for linear & hysteresis free control over the whole measurement range*

## 80 — 176 **A QUANTUM LEAP IN THE WORLD OF ACCURATE MEASUREMENT**

### 75 — 167 **Product description**

#### 70 — 158 **QuantaDat Transmitter**

149 This modular designed transmitter, with multi sensor technology, is used as a display and signal output unit with 4 sensor channels and 4 analogue outputs. This allows the management of 4 measurement points by only 1 transmitter. The sensor identification is made automatically and the channels can be assigned and configured using the onboard menu.

140 The integral climatic processor (Mollier chart) enables display and output of values such as dew point temperature, absolute humidity, specific enthalpy, mixing ratio etc. An RS-485 interface is integrated as standard. Bus interfaces and relay switches can be assembled with modular configuration.

#### 55 — 131 **nSens probe**

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

### 25 — 77 **Characteristics**

#### 20 — 68 **QuantaDat transmitter**

- Multisensor-Technology with 4 sensor channels
- 4 configurable analogue output signals
- Integrated climatic parameter processor
- Simulation function for fixed value output
- Graphical display with LED backlight
- Easy configuration by user-friendly device menu
- Simple Installation and set up

#### 5 — 41 **nSens probe**

- High measuring accuracy
- Linear response
- Digital sensor with calibration data storage
- Software for verification and calibration by PC

### **Applications**

- Clean Rooms
- HVAC plants
- Paper-/textile industry
- Meteorological stations
- Greenhouses
- Ripening chambers
- Combustion- and drying-processes
- Warehouses / storage units
- Calibration labs
- Test benches
- Plant engineering & construction and many more...

°C -20 — -4 °F

## Technical Data

<b>Transmitter</b>	<b>QuantaDat 4 channel multisensor system</b>
Power supply	24V +/- 15% AC or DC (galvanic isolated)
Power consumption	max. ca.3W
Display	Graphical display with LED backlight, 128 x 64 Pixel
Selectable parameters	Humidity; Temperature; Mixing ratio; Water vapour partial pressure; Dew-point temperature; Specific enthalpy; Absolute humidity
Analogue outputs	4 scalable & adjustable analogue outputs, 0/4..20mA or 0/2..10V
Digital outputs	RS-485 Version with relay: 2 relay contacts, switching power <=50V/2A/60W
Housing material	ABS - lid blue RAL 5014, bottom grey RAL 7035
Protection class	IP54
Operating temperature	0 to 50°C
Storage temperature	-10 to +60° C (non-condensing)
CE-/EMC compatibility	Safety: IEC 61010-1:2010 EMC: IEC 61000-6-2:2005, EN 61000-6-2:2005 IEC 61000-6-3:2006+A1:2010, EN 61000-6-3:2007+A1:2011



<b>Probe for transmitter</b>	<b>nSens-HT-ENS / Humidity-Temperature probe</b>		
Measurement range	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
No. of calibration points	Humidity	13 points over whole measurement range	
	Temperature	2 points over whole measurement range	
Housing material	PVDF black		
Sensor protection	nCap-PS polyethylene silver oxide filter		
Operating temperature	-20 to +80°C		
Storage temperature	-10 to +60° C (non-condensing)		



<b>Probe for transmitter</b>	<b>nSens-T-NBS / Temperature probe</b>		
Measurement range	Temperature	-20 ... +80°C	
Measurement accuracy incl. reproducibility and hysteresis	Temperature	0 ... +70°C	typical +/- 0.1K
		-20 ... +80°C	typical +/- 0.2K
No. of calibration points	2 points over whole measurement range		
Housing material	PVDF black		
Sensor protection	nCap-E plastic protection cap		
Operating temperature	-20 to +80°C		
Storage temperature	-10 to +60° C (non-condensing)		



## Accessories



nSens-Cable available in various lengths including mounting material

nSoft-CAL PC-calibration software

Further information the "QuantaDat/nSens - Overview Technical Data" document as well as the Novasina general catalogue is available

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