

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

| Transmitter | QuantaDat 4 channel multisensor system |
|-----------------------|---|
| 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 |



| Probe for transmitter | nSens-HT-ENS / Humidity-Temperature probe | | |
|---|---|--|---------------------|
| 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) | | |



| Probe for transmitter | nSens-T-NBS / Temperature probe | | |
|---|---------------------------------------|---------------|------------------|
| 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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