

QuantaDat process humidity transmitter

A QUANTUM LEAP IN HIGH ACCURACY HUMIDITY & TEMPERATURE MEASUREMENT

QuantaDat Transmitter

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 one transmitter. The sensor identification is made automatically and the channels can be assigned and configured using the onboard menu. 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.

nSens probe

An integral component of the system is the digital nSens-HT humidity/temperature and nSens-T temperature sensor which works over the whole measurement range with high accuracy and linear response characteristics. 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.



KEY ADVANTAGES:

Multisensor technology

Transmitter manages several sensors

Unique measurement accuracy

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

Multiple measurement technology

Full selectable psychrometric function:

Humidity, dew-point, g/Kg etc.

Process optimal

measurement technology

for stable & energy saving processes

Ideal measurement characteristics

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

Characteristics & Applications

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

nSens probe

- High measuring accuracy
- Linear response
- Digital sensor with calibration data storage
- Software for verification and calibration by PC
- Clean Rooms
- HVAC plants
- Paper / textile industry
- Meteorological stations
- Greenhouses
- Ripening chambers
- Combustion- and drying-processes
- Warehouses / storage units
- Calibration labs

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 IP65

Operating temperature 0 to 50°C

Storage temperature -10 to +60° C (non-condensing)

CE-/EMC compatibility Safety: IEC 61010-2-051:2003

EMC: IEC 61000-6-2:2005, EN 61000-6-2:2005

IEC 61000-6-3:2006, EN 61000-6-3:2007

nSens-duct mounting flange nSens-wall mounting clip



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

Measurement range Humidity 0 ... 100% RH

Temperature -20 ... +80°C

Measurement accuracy Humidity 15 ... 30°C typical +/- 0.5% RH

incl. reproducibility 0 ... 50°C typical +/- 1.0% RH

and hysteresis -20 ... +80°C typical +/- 2.5% RH

Temperature 0 ... +70°C typical +/- 0.1K

-20 ... +80°C typical +/- 0.2K

No. of calibration points Humidity 13 points over whole measurement range

Temperature 2 points over whole measurement range

Housing material PVDF black

Sensor protection standard plastic filter cap with Poroplast insert

Operating temperature -20 to +80°C

Storage temperature -10 to +60° C (non-condensing)



Accessories :



*nSens-cable 5m, 10m, 30m*nSens-duct mounting flange*nSens-wall mounting clip* nSoft-CAL

A full specification sheet is available for the QuantaDat transmitter and nSens probe, on request.