

Hygrocontrol COSA Xentaur Portfolio: Relative Humidity Products



The Hygrocontrol line of Relative Humidity sensors are based on a proprietary polymer and plating process that provides the longest lasting and most stable relative humidity measurement on the market today. Offering the benefits of ease of calibration, minimal drift, and excellent stability over temperature fluctuations, Hygrocontrol's full line of product configurations can address any relative humidity measurement application. Now the Hygrocontrol product line joins the family of leading edge moisture technologies offered by COSA Xentaur. For any measurement of moisture or relative humidity please contact Hygrocontrol COSA Xentaur GmbH.

Typical Applications:

- Ripening, packaging, storage and transportation of food
- Powder conditioning in pharmaceutical production
- Drying of materials in the production of ceramics
- Control of process parameters in chemical industries
- Climate control of clean rooms, paint boxes and dryers
- Process control in climatic and environmental chambers
- Control and documentation of sterilization in medical industries

Benefits:

- High Precision and long term stability
- Precalibrated interchangeable probes
- Simple operation and maintenance
- Corrosion Resistant
- Low temperature coefficient
- Flexible, modular system
- Displays relative, absolute and dew point



HYGROCONTROL RELATIVE HUMIDITY ANALYZERS

HUMIDITY AND TEMPERATURE TRANSMITTERS FOR EX APPLICATIONS TYPE 86

The 86 EX is an Excellent, Flexible and Simple Analyzer for Measuring Humidity and Temperature providing an IS supply for the probes. The 86 EX uses fixed or remote mount probes offering both humidity and temperature measurements. All connectable probes are pre-calibrated and allow replacement without process shut downs. The transmitter is IP65 rated and supplies an intrinsically safe supply for the probes.



Ranges:

Humidity0 - 100 %RH
Temperature..... -59 - 150 °C

Repeatability and Resolution:

Repeatability.....0.5%RH / 0.15°C
Hysteresis.....0.5%RH / 0.1°C
Resolution.....0.1%RH / 0.1°C

Accuracy:

Humidity at 0...50°C.....+/- 1.5 / 2.5 %RH
Humidity at -25...+100°C...+/- 2.0 / 3.0%RH
Humidity at -50...+150°C...+/- 2.5 / 4.0%RH
Temperature.....+/- 0.3 / 0.5 °C

Power Supply:

85 to 240 VAC or 9 - 25VAC / 10-36 VDC
Outputs: 0/4...20mA, max. Load 300 Ohms
0/2...10V, 0/1...5V, Ri = 100 Ohms

Operating Temperatures:

Transmitter.....-20 to +40 °C
Cable and Sensor-Electronics -40 to +60°C
Sensors.....-40 to +120 °C

HIGH PRECISION FIELD MOUNT HUMIDITY AND TEMPERATURE TRANSMITTERS TYPE 72

The 72 uses fixed or remote mount probes offering both humidity and temperature measurements. All connectable probes are pre-calibrated and allow replacement without process shut downs. The sensors use precious metal to produce large stability and accuracy under chemical attacks.



Ranges:

Humidity0 - 100 %RH
Temperature..... -59 - 150 °C

Repeatability and Resolution:

Repeatability.....0.5%RH / 0.15°C
Hysteresis.....0.5%RH / 0.1°C
Resolution.....0.1%RH / 0.1°C

Accuracy:

Humidity at 0...50°C.....+/- 1.5 / 2.5 %RH
Sensors.....-50 to +150 °C
Humidity at -50...+150°C...+/- 2.5 / 4.0%RH
Temperature.....+/- 0.3 / 0.5 °C
Humidity at -25...+100°C...+/- 2.0 / 3.0%RH

Power Supply / Outputs:

Input.....24/110/230 VAC or 12/24 VDC
Outputs:0/4...20mA..... max. 500 Ohms Load
0/2...10V, 0/1...5V, Ri = 500 Ohms

Operating Temperatures:

Instrument and probe ends.....-20 to +60 °C

HYGROCONTROL DATA LOGGERS TYPE 10

Data loggers for relative humidity and temperature (hygrometer) combined with internal or external sensor. Readings in dew point [°C, °F], and absolute humidity [g/scm], temperature in °C or F°.



Ranges:

Humidity10/0 to 95/100 %RH
Temperature..... -20/30 to +50/70°C

Power Supply:

Lithium-Battery.....1x3.6V (AA)

Repeatability:

Humidity.....<1.0 %RH / 0.5%RH
Temperature.....<0.3 °C / 0.1 °C

Operating Temperature:

Instrument.....-20 to +50°C
Sensor.....-30 to +70°C

Accuracy:

Humidity.....+/- 2.0 %RH
Temperature.....+/- 0.2/0.5 °C

HYGROCONTROL HAND HELDS TYPE 20

Hand-held instrument for temperature and relative humidity (hygrometer) with fixed or flexible probe. Humidity can also be calculated and displayed in units as: Dew point [°C, °F], absolute humidity [g/scm]. The temperature can be displayed as °C or °F.



Ranges:

Humidity.....0 to 98%RH
Temperature.....-20 to +50

Power Supply:

Alkaline Batteries.....4x1.5V (AA)

Repeatability:

Humidity.....<0.5 %RH / 0.1%RH
Temperature.....<0.3 °C / 0.1 °C

Operating Temperature:

Instrument.....0 to 50°C
Sensor.....-20 to 50°C

Accuracy:

Humidity.....+/- 2.0 %RH
Temperature.....+/- 0.3/0.5 °C

HYGROCONTROL WALL DUCT TYPE 61,62

Low cost relative humidity and temperature meter (hygrometer) for industrial use. Following humidity can be calculated and displayed: Dew point [°C, °F], absolute humidity [g/scm, grains/scm, grains/scf], specific humidity [g/kg] and enthalpy [kJ/kg]. The temperature can be displayed as °C or °F.



Ranges:

Humidity.....0 to 100%RH
Temperature.....-50 to +100°C

Power Supply / Outputs:

Input.....12-24 VAC or VDC
Outputs:...0...20mA(300 Ohms) or 0....10V

Repeatability:

Humidity.....<0.5 %RH / 0.1%RH
Temperature.....<0.2 °C / 0.1 °C

Operating Temperature:

Instrument.....-10 to 60°C
Probe.....-50 to 100°C

Accuracy:

Temperature.....+/- 0.35 °C
Humidity.....+/- 2.5 %RH

HYGROCONTROL LABORATORY TYPE 76

The laboratory instrument type 76 can be used for the humidity and temperature (hygrometer) (%RH) in the laboratory and in the field. Sensors of different types and sizes can be connected without additional calibration. The following humidity can be calculated, displayed and issued. Dew point [°C, °F], absolute humidity [g/scm, grains/scm, grains/scf], specific humidity [g/kg] and enthalpy [kJ/kg]. The temperature can be displayed as °C or °F.



Ranges:

Humidity.....0 to 100%RH
Temperature.....0 to 100°C

Power Supply / Outputs:

Input.....220, 110, 24 VAC or 12, 24 VDC

Repeatability:

Humidity.....<0.5 %RH
Temperature.....<0.2 °C
Water activity.....<0.005 aw

Operating Temperature:

Instrument and probe head.....-10 to 60°C
Probe tubes.....-25 to 135°C
Water activity chambers.....0 to + 60 °C

Accuracy:

Humidity.....+/- 1.5 %RH
Temperature.....+/- 0.3°C

HYGROCONTROL WALL DUCT TYPE 81,82

High-precision relative humidity and temperature meter (hygrometer) for industrial use. The following humidity units can be calculated, displayed and issued. Dew point [°C, °F], absolute humidity [g/scm], specific humidity [g/kg] and enthalpy [kJ/kg]. The temperature can be displayed as °C or °F.



Ranges:

Humidity0 to 100 %RH
Temperature..... -20 to +50 °C

Power Supply:

Lithium-Battery.....1x3.6V (AA)

Repeatability:

Humidity.....<1.0 %RH / 0.5%RH
Temperature.....<0.3 °C / 0.1 °C

Accuracy:

Humidity.....+/- 2.0 %RH
Temperature.....+/- 0.2/0.5 °C

HYGROCONTROL 2 WIRE INSTRUMENT TYPE 83

Closed loop relative humidity and temperature meter (hygrometer) for industrial use. The drawn current (4-20mA) responds to measured humidity 0-100% RH.



Ranges:

Humidity.....0 to 100%RH
Temperature.....-50 to +150°C

Power Supply / Outputs:

Input.....12, 24
VDC

Repeatability/Resolution:

Repeatability.....0.5%RH / 0.15°C
Hysteresis.....0.5%RH / 0.1°C
Resolution.....0.1%RH / 0.1°C

Maximum Temperature:

Electronic Housing..... -20 to +60 °C
Sensors.....-50 to +150 °C

Accuracy:

Humidity at 0...+50°C.....+/- 1.5 / 2.5 %RH
Humidity at -25...+100°C..+/- 2.0 / 3.0%RH
Humidity at -50...+150°C..+/- 2.5 / 4.0%RH
Temperature.....+/- 0.3 / 0.5 °C