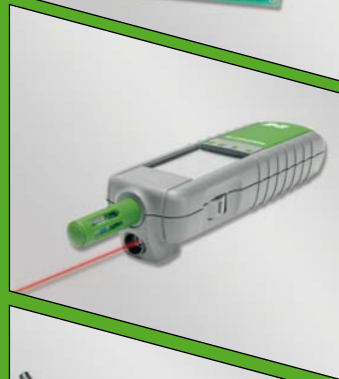
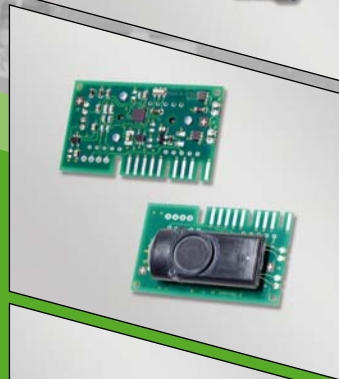


PRODUCT OVERVIEW 2008 / 2009

Sensor Technology
for your Success
we take up the challenge

- Humidity in Air ■
- Humidity in Oil ■
- Dew Point ■
- Air Velocity ■
- CO₂ ■
- Calibration Services ■



E+E
ELEKTRONIK

www.epluse.com

■ Humidity / Temperature Transmitters for Industrial Applications



Series EE29/31 - EE32/33 - EE23

The most important requirements for industrial applications are highest accuracy over a wide temperature range, different models and outstanding long term stability.

The heated, monolithic sensor of the EE32/33 series makes it possible to establish high precision and long term stable measurements in industrial applications with a continuous high humidity. Precise measurement results are even warranted during temporary condensation and in case of severe chemical conditions. Additionally, for high pressure applications up to 100bar (1450psi) special probes are available.

Working range: 0...100% RH; -40...180°C (-40...356°F)

Accuracy: $\pm (1.3 + 0.3\% \text{ of mv}) \% \text{ RH}$;
 $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)

Outputs: 0 - 5V / 0 - 10V or 0 - 20mA / 4 - 20mA
configurable by software

Digital outputs: RS232 / RS485 / Ethernet

Measurands: RH / T / Td / Tf / Tw / e / r / dv / h

Pressure range: up to 100bar (1450psi)

Supply voltage: 12...30V AC / 8...35V DC

Series EE22

Specific for the EE22 series are the interchangeable sensing probes with connector.

Working range: 0...100% RH; -40...80°C (-40...176°F)

Accuracy: $\pm 2\% \text{ RH}$; $\pm 0.1^\circ\text{C}$ ($\pm 0.18^\circ\text{F}$)

Outputs: 0 - 1V / 0 - 5V / 0 - 10V or 4 - 20mA

Supply voltage: 24V AC/DC

■ Humidity / Temperature Transmitters for Intrinsically Safe Applications



Series EE30EX



Transmitters of the EE30EX series comply with the ATEX and IECEx requirements. These instruments can be used in zone 0 and temperature class T6. The accreditation has been carried out by Physikalisch-Technischen Bundesanstalt (PTB).

Working range: 0...100% RH; -40...180°C (-40...356°F)

Accuracy: $\pm 2\% \text{ RH}$; $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)

Outputs: 0 - 5V / 0 - 10V or 4 - 20mA
configurable by software

Measurands: RH / T / Td / Tf / Tw / e / r / dv / h

Supply voltage: 24V AC/DC

Transmitters / Switches for Moisture Content in Oil



Series EE36

The EE36 series are specially designed for online monitoring of moisture in lubrication or insulation oil.

Working range: 0...1 a_w; -40...180°C (-40...356°F)

Accuracy: ±0.02 a_w; ±0.2°C (±0.36°F)

Outputs: 0 - 5V / 0 - 10V or 0 - 20mA / 4 - 20mA configurable by software

Supply voltage: 12...30V AC / 8...35V DC



Series EE381

NEW

The compact transmitters / switches are developed for online monitoring and are available as an OEM version.

Working range: 0...1 a_w; -40...80°C (-40...176°F)

Accuracy: ±0.02 a_w; ±0.2°C (±0.36°F)

Analogue outputs: 0 - 1V / 0 - 5V / 0 - 10V or 0 - 20mA / 4 - 20mA

Alarm output: 2 potential-free relays (NO)
30V DC 0.6A / 35V AC 0.3A

Supply voltage: 10...30V DC

Dew Point Transmitters / Switches

down to -80°C T_d (-112°F T_d)



Series EE35

The EE35 series is designed for accurate measurement of dew point T_d and frost point T_f in compressed air and in harsh industrial environments.

Working range T_d: -60...60°C (-76...140°F)

Working range T: 0...60°C (32...140°F)

Accuracy T_d: ≤ ±2°C (≤ ±3.6°F)

Accuracy T: ±0.2°C (±0.36°F)

Outputs: 0 - 5V / 0 - 10V or 0 - 20mA / 4 - 20mA configurable by software

Supply voltage: 12...30V AC / 8...35V DC



Series EE371/EE372

NEW

The exact monitoring of dew point temperature in compressed air systems, dryers for plastic and other industrial processes is becoming increasingly more important. The transmitter/switches of the EE371/EE372 series are the ideal solution for such applications.

Working range T_d: -80...60°C T_d (-112...140°F) / -40...60°C T_d (-40...140°F)

Working range volume concentration:
20/190...200,000ppm

Accuracy T_d: ≤ ±2°C T_d (≤ ±3.6°F)

Accuracy volume concentration: 5ppm + 9% of reading

Analogue outputs: 0 - 1V / 0 - 5V / 0 - 10V or 0 - 20mA / 4 - 20mA

Alarm output: 2 potential-free relays (NO)
30V DC 0.6A / 35V AC 0.3A

Supply voltage: 10...30V DC

■ Humidity / Temperature Transmitters for HVAC Applications



Series EE10

Working range: 0...95% RH; 0...50°C (32...122°F)
Accuracy: ±2% RH; ±0.25°C (±0.45°F)
Outputs: 0 - 10V or 4 - 20mA resp. passive temperature output
Supply voltage: 24V AC/DC



Series EE21

Working range: 0...100% RH; -40...60°C (-40...140°F)
Accuracy: ±2% RH; ±0.2°C (±0.36°F)
Outputs: 0 - 1V / 0 - 5V / 0 - 10V or 4 - 20mA
Supply voltage: 24V AC/DC

Series EE16

Working range: 10...95% RH; 0...50°C (32...122°F)
Accuracy: ±3% RH; ±0.3°C (±0.54°F)
Outputs: 0 - 10V or 4 - 20mA
Supply voltage: 24V AC/DC

for OEM Applications



Series EE03 / EE04 / EE06

Working range: 0...100% RH; -40...85°C (-40...185°F)
Accuracy: ±3% RH; ±0.3°C (±0.54°F)
Outputs: analogue / digital (2-wire)
Supply voltage: 2.5V DC - 5.5V DC
 5V DC ±10%
 4.5V DC - 30V DC



Series EE07 / EE08

Working range: 0...100% RH; -40...80°C (-40...176°F)
Accuracy: ±2% RH; ±0.2°C (±0.36°F)
Outputs: analogue / digital (2-wire)
Versorgungsspannung: 3.8V DC - 5.5V DC
 4.5V DC - 30V DC

■ Humidity Calibrator



Series HUMOR 20

Humidity calibrators of the HUMOR 20 series are high-precision standards and offer easy handling. They can be used to calibrate both sensing probes and room instruments. The measuring principle is based on the two-pressure reactor.
The optional automatic calibration module enables full automatic measurement of the characteristics of a transmitter.

Working range: 10...95% RH
Accuracy: 0.35...0.9% RH
Supply voltage: 90...230V AC

Humidity / Temperature Data Loggers



Series HUMLOG 10

Excellent functionality of the software, large size display, low power consumption and the huge data memory - all packed in a well designed housing - are the features of this modern, reliable data logger.

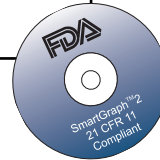
Working range: 0...100% RH; -40...100°C (-40...212°F)

Accuracy: ±2% RH; ±0.2°C (±0.36°F)

Memory size: up to 120,000 measured values

Supply voltage: 3.6V lithium battery

Serial interface: RS232 / USB



Handhelds



Series OMNIPOINT 20

Handhelds of the OMNIPOINT 20 series can measure with the highest accuracy the following values by using the appropriate sensing probe:

- relative humidity
- temperature
- dew point temperature
- absolute humidity
- mixing ratio
- air velocity
- water activity in oil
- water content in oil



Series HUMIPOINT XX NEW

The HUMIPOINT series are designed for portable measurement of relative humidity, temperature, surface temperature, dew point, absolute humidity and mixing ratio.

Working range: 5...95% RH; -20...50°C (-4...122°F)

Accuracy: ±2% RH; ±0.4°C (±0.7°F)

Resolution: ±0.1% RH; ±0.1°C (±0.18°F)



Series THERMOPORT 20

The THERMOPORT 20 series are temperature handhelds with two channels, one for PT100 probes and the other for thermocouple probes.

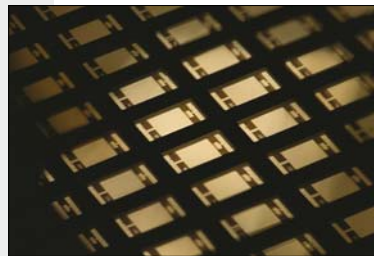
Working range: -200...1200°C (-328...2192°F)

Accuracy: ±0.1°C (±0.18°F)

Resolution: ±0.01°C (±0.018°F)

Supply voltage: 4x 1.5V AA battery

Humidity Sensors



Series HC...

Due to carefully selected materials, modern thin film production technologies, and our long experience in the field of sensor production, all of our SERIES HC capacitive humidity sensors excel with outstanding longterm stability, highest reproducibility of the sensor parameters, wettability and high chemical resistance.

CO₂ Transmitters / Switches for HVAC Applications



Series EE80 / EE85

The EE80 series combines CO₂, relative humidity (RH) and temperature (T) measurement in one housing.

Measurement principle: Non-Dispersive Infrared Technology (NDIR)

Working range: 0 - 2000/5000/7000ppm;
10...90% RH; -5...55°C (23...131°F)

Accuracy: < ± (50ppm +2% of measuring value)
±3% RH; ±0.3°C (±0.54°F)

Outputs: 0 - 5/10V; 4 - 20mA / switching output
Supply voltage: 24V AC; 15 - 35V DC

Transmitter for Industrial Applications



Series EE82

The robust, functional housing, with integrated filter, of the CO₂ transmitter EE82 has been designed especially for harsh environments (green houses, storage rooms and life stock barns).

Measurement principle: Non-Dispersive Infrared Technology (NDIR)

Working range: 0 - 2000/5000/7000ppm

Accuracy: < ± (50ppm +2% of measuring value)

Outputs: 0 - 10V / 4 - 20mA

Supply voltage: 24V AC; 15 - 35V DC

Miniature Module for OEM / HVAC Applications



Series EE89 NEW

The EE89 series CO₂ miniature module is designed especially for OEM applications.

Measurement principle: Non-Dispersive Infrared Technology (NDIR)

Working range: 0 - 2000/5000ppm

Accuracy: < ± (50ppm +2% of measuring value)

Outputs: digital E2 interface

Supply voltage: 4.75 - 7.5V DC

Calibration Services



OEKD calibration certificates can be issued for following physical quantities:

- relative humidity
- air temperature
- dew point
- mixing ratio
- specific humidity
- volume ratio
- water vapour density



ISO calibration certificates can be issued for following physical quantities:

- temperature
- relative humidity
- air velocity
- dew point
- CO₂

OEKD ISO Certification

Increasing demands for product quality and the various guidelines for quality control such as ISO9001, QS9000, VDA6.1 and TS16949 require monitoring of measurement and test equipment on a regular basis. Calibrations performed in E+E calibration labs guarantee reliable and traceable measurement. E+E Calibration Certificates document the compliance of the measuring instruments with quality assurance regulations.

E+E Elektronik is a designated laboratory to provide the national standard of relative humidity in Austria.



BEV = The Federal Office of Metrology and Surveying (National Metrology Institute in Austria)

Air Velocity

Transmitters for Industrial Applications



Series EE75

Transmitters of the EE75 series are ideal devices for measurement of air/gas velocity, volumetric flow rate and temperature. Various mechanical and software related features allow an optimal adjustment to the respective application.

Working range: 0...2/10/40m/s (0...400/2000/8000 ft/min)

Temperature working range: -40...120°C (-40...248°F)

Outputs: 0 - 10V / (0) 4 - 20mA (free scaleable)

Supply voltage: 24V DC/AC

Transmitters for HVAC Applications



Series EE65 / EE66

Working range:

EE65: 0...10/15/20m/s (0...2000/3000/4000ft/min);

EE66: 0...1/1.5/2m/s (0...200/300/400ft/min)

Outputs: 0 - 10V or 4 - 20mA

Supply voltage: 24V AC/DC



Series EE57

Working range: 0...10m/s (0...2000ft/min)

Output: 0 - 5V (non linear)

Supply voltage: 12 - 16V DC



Switches

Series EE55 / EE56

Working range threshold:

EE55: 2...20m/s (400...4000ft/min)

EE56: 0.2...2m/s (40...400ft/min)

Switching output: 10A / 250V

Supply voltage: 24V AC/DC or 230V AC



Handhelds

Series VELOPORT 20

Working range: 0...2/20m/s (0...400/4000ft/min);
-20...70°C (-4...158°F)

Accuracy: ±0.2m/s (±40ft/min); ±0.7°C (±1.26°F)

Resolution: 0.01m/s (2ft/min); ±0.1°C (±0.18°F)

Supply voltage: 4x 1.5V AA battery

Probe diameter: 6mm (0.24")





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