INNOVATION IN HUMIDITY AND TEMPERATURE MEASUREMENT

- Relative humidity, temperature and dew point measurement
- Psychrometric calculation capability
- Outstanding accuracy and repeatability
- Super-fast probe changes
- Auto-diagnostics and automatic correction
- Highest-possible measuring accuracy
- Freely scalable analog signals
- Network compatibility with digital outputs
- Internet updates possible
The new HygroFlex5-series is the latest development in transmitters for humidity, temperature and dew point. One outstanding feature of this innovative product is, the possibility to output all psychrometric calculations as an analog signal.

The HF5-series is compatible with HygroClip2 probes with integrated AirChip3000 technology – thanks to which the probes achieve a degree of accuracy not seen before.

In combination with advances in sensor technology and integration, the HygroFlex HF52-, HF53- and HF55-transmitters provide superb precision and state-of-the-art functionality, taking humidity, temperature and dew point measurements to a whole new level of performance (< 0.02 %rh) and reliability (< 0.8 %rh and < 0.1 K).

**SPECIFY THE BEST:**
**HYGROFLEX5 ADVANTAGES AT A GLANCE.**

**Practical display**
- Display of the measured values on a clear, backlit graphic display with trend indicators
- Configuration by keypad possible

**Tried-and-tested housing**
- Robust industrial housing
- Wall or duct mount versions

**Outputs**
- Two freely selectable and scalable analog outputs
- Available as 2-wire (HF52), 3/4-wire (HF53) and digital (HF55) transmitter
- Optional digital outputs allow integration on a network via RS485, Ethernet and even wireless connection

**Flexible choice of probes**
- Connection of various probes possible
  - Connection of simulators allows easy process validation

**AirChip3000**
- Compensates humidity and temperature over 30,000 reference points
- 2,000 data point memory
- Dew/frost point calculation
- Sensor auto-diagnostics and automatic correction
- Active alarming and information
- ASIC, (Application Specific Integrated Circuit), micro-controller and EEPROM on one chip
The HygroFlex5-series is ideal for all applications where exact measurement of humidity and temperature is of decisive importance, e.g. the food and pharmaceutical industries, printing and paper industries, meteorology, agricultural sector, archaeology, climatology, etc. There is hardly a field today in which these parameters may be ignored. It is ultimately the measuring task in hand that defines the instrument that best covers your needs.

**APPLICATIONS.**

**HYGROFLEX5-series**

**PROBES FOR HYGROFLEX TRANSMITTERS.**

Whether you need a simple plug-in probe for use with a hand-held instrument or data logger, or a more sophisticated cable probe for high-temperature and other special applications, we can provide you with the ideal HygroClip2 probe to suit your requirements. All HygroClip2 probes can be individually calibrated and adjusted to increase measurement precision where you need it the most. This capability is exactly what makes every probe in the product range a high-end solution for your application.

<table>
<thead>
<tr>
<th>Standard Climatic Probe</th>
<th>Industrial Probes</th>
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<tbody>
<tr>
<td>Probe for transmitters in wall or duct versions</td>
<td>Probes for process applications. Operating range 0...100%rh, -50...200°C (-58...392°F) and 0...400 bar (0...5,800 PSI) (also available as screw-in probes)</td>
</tr>
<tr>
<td>Operating range -40...100 °C</td>
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Interested in further information about the right choice of probe (special applications, order codes, etc.)? A complete and up-to-date overview of all probe options is available on our web site [www.rotronic-humidity.com](http://www.rotronic-humidity.com).
FACTORY ADJUSTMENT.

Three different adjustment profiles are available from the factory for HygroClip2 probes and instruments; this means that measuring accuracy can be matched to the application need. The custom adjustment profile consists of 20 humidity values at 3 temperatures to ensure optimum performance over a required working range. The data is stored on the AirChip and can be retrieved later for audit purposes.

SENSOR DIAGNOSTICS.

The intelligence of AirChip3000 technology enables advanced sensor diagnostics. Should the sensors deviate from factory defined parameters, measurement values can be compensated automatically and a digital alarm triggered.

DATA LOGGING AND ALARM GENERATION.

Up to 2,000 measurement values can be stored in the HygroClip2 probe; the user is able to configure the measurement interval, set alarm limits, scale the output signal and download data using optional ROTRONIC HW4 software. The HygroClip2 probe can be programmed with set limits to generate an alarm which is available when the probe is communicating with a PC or compatible ROTRONIC device. Thus, the HygroClip2 can be integrated in any application.

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