

AIRCHIP3000 TECHNOLOGY



TECHNOLOGY

Electronics.

ROTRONIC pioneered digital technology in humidity instruments with the HygroClip concept. After ten successful years, the time was right for new and advanced electronics.

The result of our intensive research and development work is the AirChip3000 found in the latest generation of our products, giving them a degree of flexibility, precision and functionality that was not previously possible.

This innovation in humidity and temperature measurement has much to offer:

- measures relative humidity, temperature and calculates dew point.
- excellent reproducibility
- conforms to FDA 21 CFR Part 11 and GAMP4 (audit trail)
- auto-diagnostics and digital multi-point adjustment
- can be used as a simulator tool for system qualification
- UART interface for digital data and two analog signals 0...1 V

ROTRONIC HygroClip2 probes can be connected to all new-generation instruments and interchanged without the need for further calibration or adjustment.



Humidity sensors.

We have developed the Hygromer® sensor continuously since its introduction in 1979, always using the best materials and state of the art production techniques. Even today it still has the widest application range of any humidity sensor on the market at 0...100 %rh and -100...200 °C.

Its long term stability is legendary and many sensors manufactured 20 or more years ago are still in daily use today. It is also able to withstand exposure to condensation without influencing its calibration.

The Hygromer® sensor is used in all ROTRONIC products in the Hygromer® and HygroClip® ranges.



Mechanical components.

Use of the right mechanical components is essential for precise measurement of humidity and temperature. The best humidity sensors and best electronic systems cannot compensate measurement errors caused by mechanical inadequacies at the point of measurement. ROTRONIC probes therefore combine excellent mechanical stability with optimal thermal properties to achieve the highest possible measurement performance.



Accuracy.

HygroClip2 probes are adjusted according to international standards with an air flow of 1 m/s at 23 ±5 °C. Accuracy ranges between ±2 %rh / 0.3 K and ±0.5 %rh / 0.1 K depending on the product and adjustment profile selected. Accuracy specifications in this catalogue are defined by product comparison with the reference instruments used in our production plants (traceable to national standards). All the information in this catalogue is correct and true as at the time of publication. Subject to technical change without notice. Errors and omissions excepted.