DWYEROMEGA™

Dew Point, Humidity & Temperature Calibration Products

Global Service and Support Offering with Accredited Calibration Labs

Chilled Mirror Reference Hygrometers

Michell Instruments' chilled mirror reference hygrometers provide fundamental measurements of dew point with excellent long-term stability. They are all designed to operate as standalone devices but can also be used in combination with humidity generators to provide highly accurate humidity and dew-point calibrations.

Small and transportable

Remote sensor

Michell's first high-temperature sampling chilled mirror

Low dew-point with no additional cooling

Measurement down to -100 °C (-148 °F) frost point without the need for additional cooling

Optidew 401 – Cost-effective Chilled Mirror Hygrometer

- New chilled mirror hybrid sensor gives fast dynamic response to changes in humidity
- Accurate to ±0.15 °C dew-point, ±0.1 °C temperature
- Wide measurement range from -40 to +120 °C dew-point

S8000 Remote – High-Precision Chilled Mirror with Remote Sensor

- 40 to +120 °C dew-point range with ±0.1 °C dew-point accuracy
- Small, compact design
- Easy integration with HygroGen2

S8000 HT – High-Precision Chilled Mirror Hygrometer

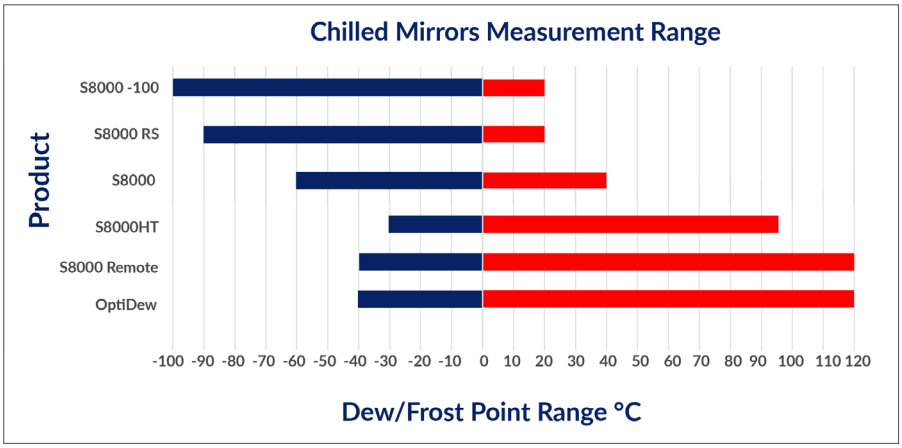
- Accuracy of ±0.1 °C (±0.18 °F)
- Precision measurement to -30 °C to +95 °C (-22 °F to 203 °F) dew point
- Simple configuration and operation via touchscreen interface

S8000 and S8000 RS – High-Precision Chilled Mirror Hygrometer

- Accuracy of ±0.1 °C
- Precision measurement to -90 °C frost point (100 ppb) with no need for additional cooling
- Sensor head optimized for fast response to low moisture levels
- Compact 19 " x 4U package

S8000 -100 – High-Precision Chilled Mirror Hygrometer

- Accuracy of ±0.1 °C (±0.18 °F)
- Precision measurement to -100 °C frost point (13.8 ppb) with no need for additional cooling
- Sensor head optimized for fast response to low moisture levels
- Reproducibility of ±0.15 °C (±0.27 °Ffp) at -100 °C (-148 °Ffp) frost point



Humidity and Temperature Calibration

With its Brands Michell Instruments and Rotronic, PST offers a comprehensive suite of humidity and temperature calibration systems and components. These range from full-function systems suitable for use in national metrology laboratories to transportable humidity generators for quick field verifications. They are all designed to calibrate probes from any manufacturer and can be used in combination with chilled mirror reference hygrometers to produce traceable humidity calibrations.

HygroGen2-S – Humidity Calibrator

- Chamber volume: 2 litres; working volume 1.5 litres
- Humidity changes (5...95 %rh, 0.1 %rh stability): < 5 minutes
- Temperature changes (23...50 °C, 0.01 °C stability): < 5 minutes

Automated humidity calibrations

Extra large chamber capacity

HygroGen2-XL – Large Capacity Humidity Calibrator

- Chamber volume: 20 litres; working volume 17 litres
- Humidity changes (5...95 %rh, 0.1 %rh stability): <15 minutes
- Temperature changes (23...50 °C, 0.01 °C stability): < 15 minutes
- Calibrate probes, data loggers, hand helds and chart recorders

Optional Features

- Autocal: Automated calibration, adjustment and certificate generation for HC2 and HCD range probes.
- Remote API: Allows users to integrate the HygroGen2 into their own or third party systems.

OptiCal – Precision Relative Humidity and Temperature Calibrator

- Generate 10 to 90 %rh over +10 to +50 °C (+50 to +122 °F) temperature
- UKAS accredited calibration, as standard
- Humidity and temperature profile generation for unattended verification of sensors

Integral chilled mirror reference Self-contained and transportable

HygroCal100 Advanced – Humidity Validator

- Portable device with optional battery pack and hard carry case
- Intuitive UI makes simple automating probe verification
- Validate 7 probes simultaneously
- Automated validation procedures for complete hands-off probe verification

Portable and self-contained

S904 – Relative Humidity and Temperature Calibrator

- Generate 10 to 90 %rh over +10 to +50 °C temperature
- Excellent chamber stability and uniformity
- Manual control or optional straightforward automated set point programming

Humidity Standards

Rotronic's humidity standards are hermetically sealed ampoules of calibration salts, for inexpensive on-site calibrations. They are supplied with a Swiss Calibration Services (SCS) certificate, guaranteeing the traceability and accuracy.

- Simple and safe to use
- Unlimited lifetime
- Practical packs of 5 ampoules of the same humidity value (approx. 0.8 ml per ampoule)

Humidity Values

0.5 %rh, 10 %rh, 11 %rh, 20 %rh, 35 %rh, 50 %rh, 60 %rh, 65 %rh, 75 %rh, 80 %rh, 95 %rh

Ampoules contain unsaturated salt solutions

Calibration Devices

There is a suitable calibration device for every Rotronic sensor. These small, airtight containers enclose the humidity sensor exactly. The lower screw-on part is filled with the humidity standard material. After a settling period of about 60 minutes, the desired humidity value is reached and the device can be adjusted to match the reference humidity value.

Device for 1 reference and 1 test sensor

Device for 1 probe

Dew-Point Calibration Systems

DCS-60, DCS-80, DCS-100 – Dew-Point Calibration System

- Complete dew-point calibration solution with optional compressor, dryer, dew-point generator, reference instrument and optional manifold
- Generated output responds quickly to a change of set point
- Simple operation through manual flow mixing or push-button switching of set points

Complete calibration system

ISO17025

General Requirements for the Competence of Testing and Calibration Laboratories

ISO17025 chapter 6.3 discusses the facilities and environmental conditions and states that the environmental conditions (for example, temperature and relative humidity) should not adversely affect the validity of results. Chapter 6.4 is about the equipment required for measurements, including hardware that must be calibrated and software. The required environmental conditions must be documented/defined and periodically reviewed. To ensure the facilites comply to the requirements the environmentals conditions must be monitored/recorded. Calibrations and tests are not to be performed if the environmentals conditions are outside of the allowable limits.

Real-Time Monitoring

PST offers real-time monitoring solutions to ensure that accredited laboratories or any laboratory wanting to obtain accreditation can be compliant to the ISO17025 requirements.

Featured DwyerOmega Brands

MICHELL Instruments

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