

# HYGROGEN<sup>®</sup>



## Portable Humidity and Temperature Calibrator

- Generates controlled %rh & °C environment
- Fully integrated temperature control
- Suitable for all types of humidity/temperature probe
- Completely self-contained, only requires mains power
- Chamber accepts up to five probes
- Wide operating range
- Fast equilibrium
- Portable, stainless steel enclosure

**rotronic<sup>®</sup>**  
LEADING IN HUMIDITY MEASUREMENT



HygroGen is a generator of controlled % relative humidity and temperature environments, primarily for calibrating humidity instrumentation. It is completely self-contained, requiring no external resources except mains power, and is light enough to be portable for use on-site.

The HygroGen uses a divided flow method for generating the %rh required by the user; a desiccant cell provides low humidity and a custom saturator high humidity. Temperature is controlled using a Peltier.

Measurement and control are provided by a combination of a Rotronic HygroClip probe and a multi-loop controller. Set-points can be easily adjusted, either via the front panel, and/or via the standard RS232 interface and software.

The key advantage of the HygroGen is the speed to reach equilibrium of the set values, which means that a multiple point calibration check can be performed in minutes, rather than hours. A further feature of the calibration chamber is the provision of two additional probe connection points, enabling calibrated reference probes to be added. Where a primary measurement method is required, such as a condensation hygrometer, an optional front panel connection provides means of integrating an external sampling loop. This configuration flexibility ensures that the HygroGen can continue to be used whilst the preferred reference instrumentation is itself being calibrated.

With integrated temperature control, calibrations can always be performed at a defined and constant temperature, irrespective of the ambient conditions, making the HygroGen suitable for on-site calibrations. It is also possible to calibrate equipment at its normal working temperature and humidity conditions.

## HygroGen Technical Specifications

Control range:	Maximum 5...95%rh and 0...60°C Minimum 10...90%rh over the range 5...50°C
Control stability:	≤ ± 0.2%rh; 0.1°C (23°C) 0.2°C (full range)
Temperature gradients:	≤ 0.2°C at 23°C
Time to set-point:	2 minutes (35 to 80%rh change, 23°C) 10 minutes (23 to 45°C change)
Control probe:	HygroClip, calibrated at 23°C, 35, 50 & 80%rh (UKAS Traceable, other options on request)
Probe Accuracy at 23°C:	≤ ±1.5%rh (10...95%rh) ±0.3°C
External interface:	RS232 control interface, Rotronic DIO (two additional connections fitted)
Desiccant:	Indicating type, user refillable
Saturator:	Front panel fill. Level warning on controller
Chamber:	2 litres,
Enclosure dimensions:	455 x 420 x 212 mm (Maximum)
Weight:	17 kg
Power:	110/230VAC
Approvals:	EN58001-2, EN580082-2, EN61010-1
Order Code:	<b>HygroGen 1</b>