

S904

Relative Humidity and Temperature Calibrator

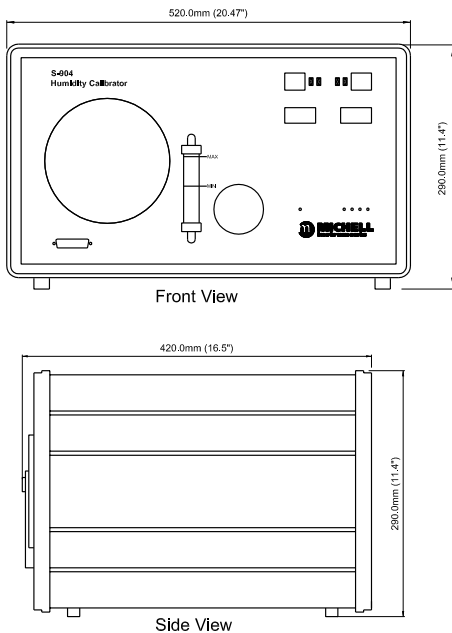


The S904 humidity and temperature generator is designed to calibrate and verify the operation of relative humidity sensors and transmitters. With a chamber temperature range of 10 to 50°C / 50 to 122°F, a uniformity of $\pm 0.1^\circ\text{C}$ / 0.02°F and the ability to generate 10–90% RH, accurate and repeatable calibrations are made easy.

Highlights

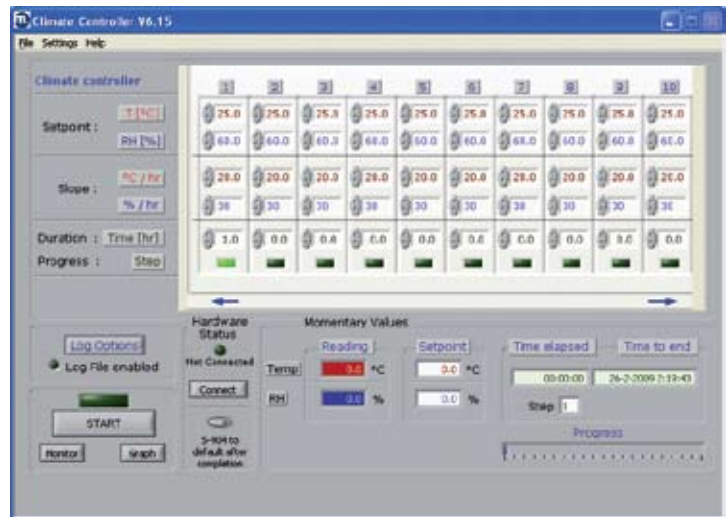
- Relative humidity and temperature controlled chamber
- Excellent stability within chamber: $\pm 0.2\%$ RH, Temp. $\pm 0.1^\circ\text{C}$ / 0.02°F
- Optional in-built data-logging for reference probe and probes under calibration
- Probes with body diameters between 5 to 25 mm / 0.2" to 0.98" can be accepted

Dimensions



Technical Specifications

Humidity	
Generator range	10–90% RH
Accuracy	$\leq \pm 1\%$ RH (10–70% RH)
Control element	$\leq \pm 1.5\%$ RH (70–90% RH)
Stability	$\pm 0.2\%$ RH (20–80% RH)
Temperature	
Generator range	10 to 50°C / 50 to 122°F (lowest T set point = 10°C / 50°F below ambient)
Accuracy	$\pm 0.1^\circ\text{C}$ / $\pm 0.02^\circ\text{F}$
Stability	$\pm 0.1^\circ\text{C}$ / $\pm 0.02^\circ\text{F}$
Chamber	
Ramp rate from 20 to 40°C / 68 to 104°F	1.5°C/minute / 2.7°F/minute
40 to 20°C / 104 to 68°F	0.7°C minute / 1.2°F/minute
Control element	Removable relative humidity sensor
General	
Probe ports	up to 5 – sensor body diameters 5–25mm / 0.2–0.98" accommodated by port adapters
Chamber volume	2000cm ³ / 122.1in ³
Chamber dimensions	105 x 105 x 160mm / 4.13 x 4.13 x 6.3" (w x h x d)
Instrument dimensions	520 x 290 x 420mm / 20.5 x 11.4 x 16.5" (w x h x d)
Set point resolution	0.1 for humidity and temperature
Displays	3 digit LED, 10mm / 0.39" characters
Supply	85–264 VAC, 47–63 Hz, 150 VA
Weight	20kg / 44lb



Labview logging software

Accessories and spare parts

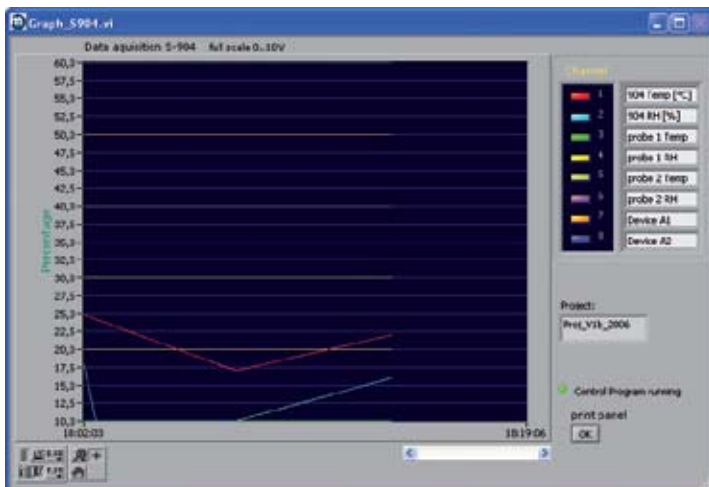
Door kit with 1 x \varnothing 19.0mm / \varnothing 0.75" port	A000260
Door kit with 5 ports. 5 adapters to be specified	A000263
Door kit with 5 ports and 25 port adapters: 5x \varnothing 19.0mm / \varnothing 0.75"; 4x \varnothing 12.0mm / \varnothing 0.47"; 4 x 13.5mm /0.53", 4 x 15.0mm/0.59", 4 x 18.5mm/0.73", 4 x 24.0mm/ 0.94" adapters and blind stops. Adapter tool included.	A000264
Door with clear window - no ports	A000266
Door without ports	A000268
Door kit for use with MI Optidew. Optidew dew-point sensor port adapter, PRT port adapter, 4 standard port adapters (\varnothing 19.0mm / \varnothing 0.75"). Adapter tool included.	A000269
Moulded polymer housing port adapter & blind stop (for customer modification)	A000290
Special modified port adapters \varnothing client specific	A000290X
\varnothing 12.0mm / \varnothing 0.47" port adapter.	A000291
Moulded polymer housing adapter (M30x1) & blind stop	
\varnothing 13.5mm / \varnothing 0.53" port adapter.	A000292
Moulded polymer housing adapter (M30x1) & blind stop	
\varnothing 14.0mm / \varnothing 0.55" port adapter.	A000293
Moulded polymer housing adapter (M30x1) & blind stop	
\varnothing 15.0mm / \varnothing 0.59" port adapter.	A000294
Moulded polymer housing adapter (M30x1) & blind stop	
\varnothing 18.5mm / \varnothing 0.73" port adapter.	A000295
Moulded polymer housing adapter (M30x1) & blind stop	
\varnothing 19.0mm / \varnothing 0.75" port adapter.	A000296
Moulded polymer housing adapter (M30x1) & blind stop	
\varnothing 24.0mm / \varnothing 0.94" port adapter.	A000297
Moulded polymer housing adapter (M30x1) & blind stop	
\varnothing 25.0mm / \varnothing 0.98" port adapter.	A000298
Moulded polymer housing adapter (M30x1) & blind stop	
Tool for M30X1 Aluminum Adapters	A000265
Control sensor	HT961T00

Order codes

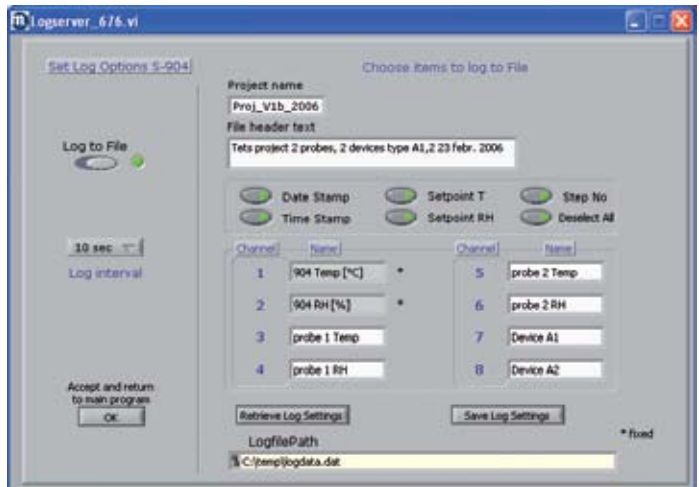
Calibrator with humidity and temperature controlled chamber.	S904
S904 calibrator with RS232 / USB interface, data-logging software for PC (6 channel data-logger)	S904-D

1. S904 set point temperature (0 to 10 V = 0 to 100°C / 32 to 212°F)
2. S904 set point RH (0 to 10 V = 0 to 100% RH)
3. Free to use (0 - 10 V)
4. Free to use (0 - 10 V)
5. Free to use (0 - 10 V)
6. Free to use (0 - 10 V)
7. Free to use (0 - 10 V)
8. Free to use (0 - 10 V)

The acquisition system only measures 0 to 10 V on every channel so the 4 to 20 mA signals from the Optidew are converted to a 0 to 10 V signal. Channels 1 and 2 are not available for logging signals. A 500 Ω resistor must be used.



Labview logging software



Labview logging software

Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: S904_97200_V1_UK_1009