

# S503 Humidity Calibrator



The S503 Humidity Calibrator enables users of humidity sensors, transmitters and portable devices to quickly and accurately generate a stable humidity in a test chamber to validate or calibrate sensors.

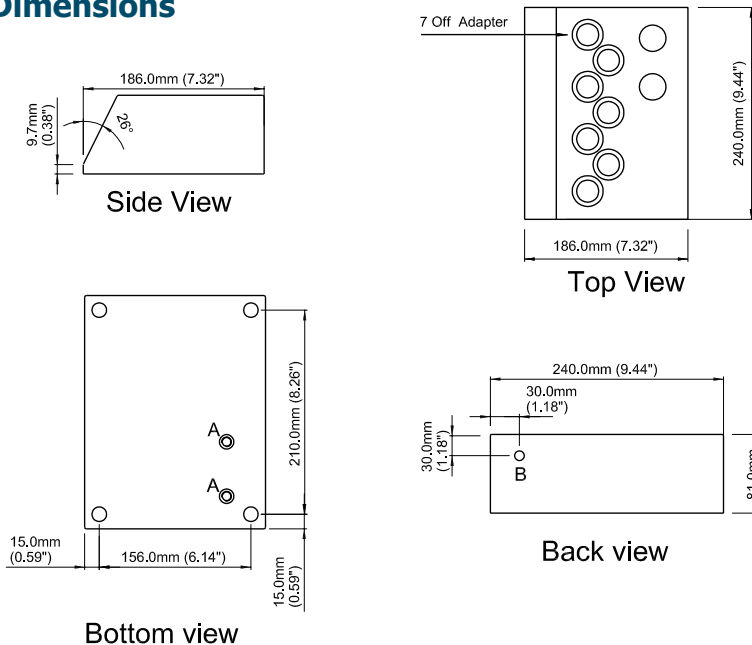
## Highlights

- Generates humidity levels between 10–90% RH
- Highly portable
- Fast stabilisation of chamber humidity
- Independent reference hygrometer – optional
- Multiple sensors can be calibrated at the same time

## Technical Specifications

Humidity	
<b>Generation range</b>	10–90% RH in steps of 0.1% RH
<b>Accuracy</b>	±2% RH or better (5–95% RH)
<b>Stability</b>	Better than ±0.5%
<b>Stabilisation time to set point</b>	<10 minutes
Temperature	
<b>Temperature accuracy</b>	±0.3°C / ±0.54°F
<b>Operating temperature (ambient)</b>	15 to 35°C / 59 to 95°F
Sensor under Calibration	
<b>Voltage read out</b>	0–1, 0–5 + 0–10 VDC
<b>Current read out</b>	4–20 mA
<b>Voltage supply</b>	15 VDC, ±10% at 30 mA max
General	
<b>Probe ports</b>	7 off – sensor body diameters 5 to 25mm / 0.2 to 0.98" accommodated by port adapters
<b>Desiccant chamber</b>	25g / 0.88oz capacity
<b>Saturation chamber</b>	25ml capacity, distilled water
<b>Display</b>	3½ digit LCD, 13mm / 0.5" characters
<b>Supply</b>	12 VDC (100 with 240 VAC adapter included)
<b>Weight</b>	1.85kg / 4.08lb

## Dimensions



Notes:  
 Hole A = Drain hole with cap  
 Hole B = Power hole for adapter

**Accessories and spare parts**

Moulded polymer housing port adapter for 8.0mm / 0.31" probes from $\varnothing$ 18.5mm / $\varnothing$ 0.73"	<b>A000180</b>
Moulded polymer housing port adapter for 12.0mm / 0.47" probes from $\varnothing$ 18.5mm / $\varnothing$ 0.73"	<b>A000190</b>
Aluminum adapter (M30x1) and blind stop for customer modification (special port adapters are available on request)	<b>A000280</b>
Special modified port adapters $\varnothing$ client specific	<b>A000280X</b>
$\varnothing$ 12.0mm / $\varnothing$ 0.47" port adapter.	<b>A000281</b>
Aluminum adapter (M30x1) and blindstop	
$\varnothing$ 13.5mm / $\varnothing$ 0.53" port adapter.	<b>A000282</b>
Aluminum adapter (M30x1) and blind stop	
$\varnothing$ 14.0mm / $\varnothing$ 0.55"port adapter.	<b>A000283</b>
Aluminum adapter (M30x1) and blindstop	
$\varnothing$ 15.0 mm / $\varnothing$ 0.59"port adapter.	<b>A000284</b>
Aluminum adapter (M30x1) and blindstop	
$\varnothing$ 18.5 mm / $\varnothing$ 0.73"port adapter.	<b>A000285</b>
Aluminum adapter (M30x1) and blindstop	
$\varnothing$ 19.0mm / $\varnothing$ 0.75"port adapter.	<b>A000286</b>
Aluminum adapter (M30x1) and blindstop	
$\varnothing$ 24.0mm / $\varnothing$ 0.94"port adapter.	<b>A000287</b>
Aluminum adapter (M30x1) and blindstop	
$\varnothing$ 25.0mm / $\varnothing$ 0.98"port adapter.	<b>A000288</b>
Aluminum adapter (M30x1) and blindstop	
Tool for changing M30 Aluminum adapters	<b>A000265</b>
Carrying case	<b>A000230</b>
Optidew Vision reference hygrometer with sensor	<b>OPT-V-01</b>
Stainless steel port adapter (M30x1)	<b>A000272</b>
Moulded polymer housing port adapter $\varnothing$ 18.5mm – $\varnothing$ 3.0mm / $\varnothing$ 0.73 – $\varnothing$ 0.19" prt probe for Optidew Vision	<b>A000273</b>
0.25kg / 0.55lb desiccant (orange)	<b>A000171</b>
Blind stop $\varnothing$ 18.5mm / $\varnothing$ 0.73"	<b>A000200</b>
Water bottle	<b>A000242</b>
Control sensor	<b>HX-757</b>

**Order codes**

Digital Humidity Generator, including desiccant, 7 port adapters, power adapter, calibration certificate and adaptor tool	<b>S503-DIG</b>
S503-DIG with extended chamber (0.54 litre extra)	<b>S503-DIG-LC</b>
S503 Calibration Kit, including DM-509-TX reference hygrometer with calibration certificate, 5 pieces $\varnothing$ 12.0mm / $\varnothing$ 0.47" adapter, 2 pieces $\varnothing$ 8.0mm / $\varnothing$ 0.31" adapter, carrying case, desiccant, distilled water, 3 adjustment tubes and adapter tool	<b>S503-DIG-SET</b>
S503 Calibration Kit, including carrying case, Optidew adapters (A-000272 & A000273) and 5 port adapters to be specified	<b>S503-DIG-OPT</b>



**Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: S503\_97199\_V1\_UK\_1009**