



ohmic instruments co.

508 August Street, Easton, Maryland 21601
 (410) 820-5111 (800) 626-7713 Fax (410) 822-9633
 www.ohmicinstruments.com
 e-mail: ohmic@ohmicinstruments.com



INDUSTRIAL & ENVIRONMENTAL SENSORS, INSTRUMENTS & CONTROLS SINCE 1969

HUMIDITY GENERATOR/CALIBRATOR - S-503(DIG) ROTARY OR DIGITAL PORTABLE HUMIDITY SYSTEM with $\pm 2\%$ ACCURACY

- GENERATES AND HOLDS %RH LEVELS
- FAST RESPONSE: 0.5% STABILITY ACHIEVED IN UNDER 10 MINUTES
- LIGHTWEIGHT & SELF-CONTAINED: NO EXTERNAL AIR OR WATER CONNECTIONS REQUIRED
- BUILT-IN POWER SUPPLY FOR TRANSMITTERS
- DISPLAYS %RH, TEMPERATURE & TRANSMITTER OUTPUTS IN mA OR VOLTS
- SAMPLE PORTS FOR UP TO FIVE 19mm (3/4") OD PROBES: CUSTOM PORTS ARE AVAILABLE
- $\pm 2\%$ RH NIST TRACEABLE UNCERTAINTY



IDEAL FOR VERIFYING & CALIBRATING %RH PROBES & TRANSMITTERS

The S-503(DIG) Humidity Generator/Calibrator enables users of humidity sensors, controllers, transmitters and readout devices to quickly and accurately generate reference humidity conditions, traceable to NIST standards, for instrument calibration.

These lightweight and self-contained units utilize an accurate thin-film capacitance sensor and closed loop controllers to modulate the flow of air through a saturator and desiccant. An axial fan continuously circulates air through the test chamber for maximum humidity and temperature uniformity. This results in a system that stabilizes to within 0.5% RH of the setpoint in less than 10 minutes.

S-503's were designed with calibration technicians in mind. The calibrator is equipped with the convenience of a built in 15VDC power supply and provides direct readout for 0-1, 0-5, 0-10 VDC and

4-20 mA transmitters as well as %RH and temperature. The unit has access ports for five 19mm (3/4") OD probes. The ports are easily removed and replaced with custom templates to accommodate various sizes of humidity sensors and probes.

Weighing only 1.5Kg (3.3 Lbs), S-503's are readily transported from the laboratory directly to the job site. The unit is powered by 9 VDC and is supplied with a 120 VAC plug-in adapter. The only maintenance required is periodic replacement of readily available drying agent in the desiccant chamber and refilling of the saturator chamber.

These units provide a system uncertainty of $\pm 2\%$ RH and are supplied with detailed operating notes.

For higher precision an independent reference standard such as a chilled mirror hygrometer or DM-509 handheld meter must be utilized.

WARRANTY: All products manufactured by OHMIC Co. are warranted to be free of defects in material and workmanship for one year after delivery. Any equipment found to be defective within this period will be repaired or replaced free of charge.

SPECIFICATIONS - S-503(DIG)

Power	9-12 VDC, 120 or 230 VAC Adapter Supplied
Humidity Range	10-80% RH (DIG 5 to 90 %)
%RH Setpoints	10, 20, 30, 50, 70 & 80% RH (DIG 0.1 %RH steps)
%RH Accuracy	± 2% RH
%RH Stability	Better than 0.5% RH
Stabilization Time to Setpoint	<10 Minutes
Operating Temperature (Ambient)	15-35°C, (60-100°F)
Temperature Accuracy	± 0.3°C, (± 0.5°F)
Transmitter Power Supply	15 VDC, ±10% at 30mA Max
Display	3-1/2 Digit LCD, 0.5" High
Voltage Readout	0- 1, 0- 5 & 0- 10 VDC
Current Readout	4-20mA DC
Desiccant Chamber	40g Capacity
Saturator Chamber	10ml Capacity
Construction	Brushed Aluminum Top, Polyurethane Housing
Dimensions	240 x 185 x 80mm (9.45 x 7.28 x 3.15 Inches)
Probe Entry	5 x 18.5mm
Weight	1.5 Kg (3.3 Lbs)



ORDERING INFORMATION

Description	Model
Humidity Generator/Calibrator Including Power Supply	S-503
Digital Humidity Generator/Calibrator Including Power Supply	S-503DIG
Accessories	
0.25Kg Desiccant	A-000170
Adapter for 8mm (.314" Probes)	A-000180
Adapter for 12mm (.472") Probes	A-000190
Blind Stop	A-000200
Carrying Case	A-000230

ENGINEERING SUPPORT: OHMIC Instruments Co. designs and manufactures a full line of sensors, environmental and bio-medical instruments and controls. Many of our products are custom designed to meet specific requirements. Our engineers will be pleased to discuss your application.



ohmic instruments co.

508 August Street, Easton, Maryland 21601
(410) 820-5111 (800) 626-7713 Fax (410) 822-9633
www.ohmicinstruments.com
e-mail: ohmic@ohmicinstruments.com

