



ohmic instruments co.

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INDUSTRIAL & ENVIRONMENTAL SENSORS, INSTRUMENTS & CONTROLS SINCE 1969

**RELATIVE HUMIDITY TRANSMITTER - MODEL SC-600E
HARSH ENVIRONMENT RH TRANSMITTER MEETS CORROSION AND EXPLOSION PROOF REQUIREMENTS**

- Sealed Electronics
- Replaceable Sensor
- Cost Effective
- +/- 2% RH Accuracy
- Withstands ETO Sterilization Process
- Wide Range 20 to 90 %RH @ 77°F
- Full Recovery From Condensation



PROVEN PERFORMANCE IN ETHYLENE OXIDE ENVIRONMENT

OHMIC's SC-600E relative humidity transmitter consists of a triple barrier encapsulated module and utilizes an easily replaceable plug-in sensor. Using a 5 VDC power supply with a very low current draw of < 2.0 mA, the unit gives a linear output in the 1 to 3 VDC range.

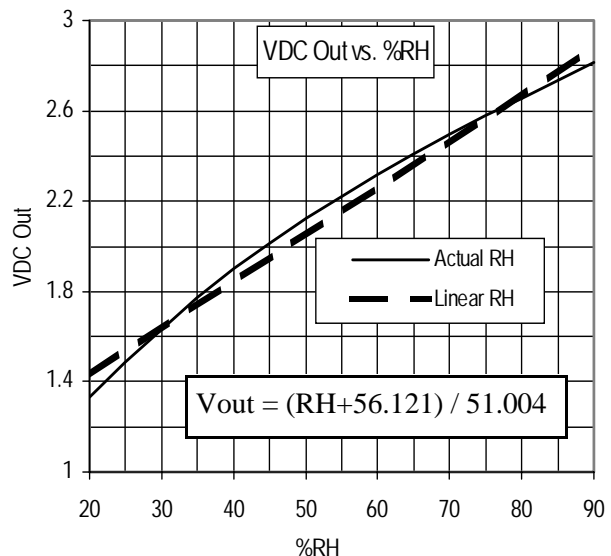
The special epoxy encapsulation provides the electronics with excellent resistance to EtO, corrosion and moisture. A convenient plug-in sensor consists of a perforated anodized aluminum housing and a condensation tolerant Model UPS-600 RH sensor. The sensor impedance varies in an inverse logarithmic function to the change in humidity.

In the ethylene oxide sterilization process, the moisture content in the chamber is the most reliable and direct indication of the effective completion of the sterilization cycle. Many sensors on the market cannot withstand the corrosive action of ethylene oxide or do not meet the explosion-proof requirement of the National Fire Protection Agency. Ohmic has solved both problems by encapsulating the low current (< 2 mA) electronics in an epoxy filled chamber and by using a sensor that is inherently safe in flammable environments. The RH sensor is further protected inside an aluminum shell.

Due to its triple barrier capsulation, the SC-600E meets National Electric Code (NEC) Sec. 504 guideline for use in flammable gas atmospheres. The sensor is plug-in for easy cost effective replacement. OHMIC's UPS-600

resistive type sensor meets (NEC) Sec. 504-2 guidelines for a "Simple Device". Such a device does not require specific approval. Compliance to local codes is recommended.

As stated in The Association for the Advancement of Medical Instruments (AAMI) technical information report TIR15:1997; during the sterilization process, one of the key parameters to be monitored is the relative humidity. The FDA also requires documentation of all instruments that control and monitor the sterilization process.



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 SC-600E

Range..... 20—90 % RH
Accuracy from 30 to 80 % RH @ 77°F..... ± 2 %RH
Repeatability ± 2 %RH
Operating Temperature -4 to +140°F
Response Time..... 60 Seconds 63% Change
Power..... 5 VDC @ < 2.0 mA
Output Signal 1 to 3 VDC Linear
Hysteresis < 0.2 %

Dimensions:

Transmitter..... 24 mm (0.950 ") x 60 mm (2.365")
Sensor..... 19 mm (0.750") x 50 mm (1.970")
Assembled..... 24 mm (0.950") x 105 mm (4.135")



UPS 600 sensor with housing

Cable 3 conductor shielded 3 Ft.

ORDERING INFORMATION

SC-600E consists of a signal conditioner card and replaceable RH sensor in a plug-in housing. The unit has a 3 foot shielded cable for connecting ground, + 5 VDC power, and signal output. For replacement sensors order Model UPS-600.

Ohmic guarantees the SC-600E electronics to be within specification for one year. Sensor life expectancy in an EtO environment is several cycles.

CONNECTION INFORMATION

Black wire..... Signal and Power grounds
Red wire..... Regulated +5 VDC Power
Yellow wire..... Signal output + VDC

The cable shielding may be connected to ground to provide reduced interference.

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



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