



Temperature/Humidity Probe 5190 Series



The 5190 series temperature/humidity probes are designed for a variety of environmental monitoring applications, including All Weather Inc.'s Automated Weather Observing Systems (AWOS). The 5190 probes operate with a DC supply voltage and have a low current draw. Relative humidity is measured with a thin-film capacitor sensor, and temperature is measured using a Pt100 RTD. The signals from the sensors are converted into two linearized voltage output signals.

SPECIFICATIONS

Humidity Sensor Thin Film Capacitor
 Temperature Sensor Pt100 RTD
 Operating Temperature
 Limits -40 to +60°C
 Humidity Output Signal
 (linear) 0-1.0 VDC=0-100%RH
 Temperature Output
 Signal (linear) 0-1.0 VDC=-40 to +60°C
 Minimum Load per Output 1000 W
 Accuracy
 Humidity (at 20-25°C)
 10-100%RH ±2% RH
 0 to 10%RH ±3% RH
 Temperature
 5190-C ±0.2°C
 5190-D ±0.3°C
 5190-E ±0.1°C

Repeatability ±0.3% RH and ±0.1°C
 Humidity Sensor
 Stability better than 1% RH over a year
 Response Time
 (without filter) 10 seconds
 (% RH and temperature)
 Calibration Potentiometers 35%, 80% RH
 T0 and Tmax
 Supply Voltage 5-28 VDC
 Current Consumption about 3.5mA
 Cable Length 3 meters (10 ft), tinned ends
 Sensor Protection wire mesh filter
 Dimensions 8.19" (208mm) long,
 0.59"(15 mm) diameter
 Weight 0.27 lb. (120g)

SYSTEMS