

# SmartReader Plus 2

## Product Specifications

**Type:** Four-Channel Temperature and Relative Humidity

### GENERAL SMARTREADER PLUS SPECIFICATIONS

**Size:** 107 mm x 74 mm x 22 mm (4.2" x 2.9" x 0.9")  
**Weight:** 110 grams (3.75 ounces)  
**Case Material:** Noryl® plastic  
**Battery:** 3.6 volt Lithium, guaranteed for ten years  
**Resolution:** 12-bit (1 part in 4096)  
**Mounting:** Magnetic backing or lock eyelet  
**Clock Accuracy:** +/- 2 seconds per day  
**Sampling Methods:** Continuous (First-in, First-out)\*, Stop When Full (Fill-then-stop)  
\*Not available with sample rates faster than eight seconds  
**Operating Limits:** -40 to 70°C (-40 to 158°F) and 0 to 95% RH (non-condensing)  
**PC Requirements:** IBM PC or 100% compatible with at least one free serial port, 2 MB of RAM memory, and 2 MB of hard disk space  
**Software Requirements:** TrendReader® Standard - Windows version 3.1, 95, 98, Me, NT, 2000, or XP

**Memory Size:** 128KB; capable of storing 87,000 12-bit readings  
(Catalog #:01-0113 SRP-002-128K)  
**Sampling Rates:** User selectable rates from 25 per second to once every eight hours (BP-101 battery pack or PS-201 power supply required for sampling rates faster than eight seconds)  
**Number of Channels:** Four (one for the internal temperature sensor and one for the internal RH sensor and the remaining two channels are reserved for an optional remote EH-020A probe [temperature and RH probe])

### SENSOR SPECIFICATIONS

**Temperature Sensor:** -40 to 70°C (-40 to 158°F), NTC Thermistor  
**Accuracy:** +/- 0.2°C from 0 to 70°C; +/- 0.5°C from -40 to 0°C (+/- 0.36°F from 32 to 160°F; +/- 0.9°F from -40 to 32°F)  
**RH Sensor:** Capacitive thin polymer film  
**Accuracy:** +/- 3% RH from 10 to 90% (-20 to 40°C [-4 to 104°F]); better than 0.04% between 25 and 60% RH at 25°C (77°F)  
**Method of Operation:** Changes in relative humidity cause the capacitance of the sensor to vary. SRP2 measures this value and converts the readings to a percentage of RH. The RH reading is then temperature-compensated by a simultaneously-taken temperature reading from the RH sensor's companion thermistor.

The SmartReader Plus 2 is a self-contained "air-quality" logger that can be used in a wide variety of applications to collect important temperature and relative humidity data. The on-board RH sensor is temperature compensated permitting reliable, worry-free RH readings. For remote sensing, simply attach the optional EH-020A external temperature and RH probe.



### WARRANTY

**Internal Battery:** 10 Years  
**Data Logger:** 3 Years

### APPLICATIONS

Monitoring the transportation or storage of perishable and pharmaceutical goods, tracking "air quality", HVAC system testing and balancing, etc.

**Model#:** SRP-002-128K  
**Cat#:** 01-0113