

# SmartReader Plus 4 LPD

## Product Specifications

**Type:** Two-Channel Low Pressure Differential & Temperature

### GENERAL SPECIFICATIONS

<b>Size:</b>	107 mm x 74 mm x 22 mm (4.2" x 2.9" x 0.9")
<b>Weight:</b>	110 grams (3.75 ounces)
<b>Case Material:</b>	Noryl® plastic
<b>Battery:</b>	3.6 volt Lithium
<b>Resolution:</b>	12-bit (1 part in 4096)
<b>Mounting:</b>	Magnetic backing or locking eyelet
<b>Clock Accuracy:</b>	+/- 2 seconds per day
<b>Sampling Methods:</b>	Continuous (First-in, First-out)*, Stop When Full (Fill-then-stop) <i>*Not available with sample rates faster than eight seconds</i>
<b>Operating Limits:</b>	-40 to 70°C (-40 to 158°F) and 0 to 95% RH (non-condensing)
<b>PC Requirements:</b>	IBM PC or 100% compatible with at least one free serial port, 2 MB of RAM memory, and 2 MB of hard disk space
<b>Software Requirements:</b>	TrendReader® Standard (compatible with Windows® 3.1, '95, '98, 2000, Me, NT and XP)
<b>Memory Size:</b>	32KB (capable of storing up to 21,500 readings)
<b>Sampling Rates:</b>	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)
<b>Number of Channels:</b>	Two (one for the internal temperature sensor and one for the internal pressure sensor)

### SENSOR SPECIFICATIONS

<b>Temperature Sensor (internal)</b>	NTC Thermistor - 10,000 Ohm @ 25°C (77°F)	
Range:	-40 to 70°C (-40 to 158°F)	
Accuracy:	+/- 0.2°C over the range of 0 to 70°C (+/- 0.3°F over the range of 32 to 158°F)	
Resolution:	0.03°C (0.05°F) @ 25°C; better than 0.07°C (0.12°F) between -25 and 70°C (-13° and 158°F); better than 0.13°C (0.23°F) between -40 and -25°C (-40°F and -13°F)	

### Pressure Sensor

Type:	Silicon piezoresistive strain gauge	
Media:	Non-corrosive gases and dry air	
Maximum Pressure:	Four times full scale	
Range:	Accuracy:	Resolution:
+/- 0.5" WC (+/- 120 Pa)	+/- 0.05" WC (+/- 2.5 Pa)	< 0.001" WC (0.25 Pa)
+/- 1" of WC (+/- 250 Pa)	+/- 0.05" WC (+/- 2.5 Pa)	< 0.001" WC (0.25 Pa)
+/- 2" of WC (+/- 500 Pa)	+/- 0.05" WC (+/- 2.5 Pa)	< 0.001" WC (0.25 Pa)
+/- 5" of WC (+/- 1.2 kPa)	+/- 0.1" WC (+/- 12.5 Pa)	< 0.01" WC (2.5 Pa)
+/- 10" of WC (+/- 2.5 kPa)	+/- 0.1" WC (+/- 12.5 Pa)	< 0.01" WC (2.5 Pa)

The SmartReader Plus 4 LPD (Low Pressure Differential) logger is a two channel logger with internal pressure and temperature sensors. The low pressure sensor is built into the logger and is capable of measuring low gauge and differential pressure.



### WARRANTY

Internal Battery:	10 Years
Data Logger:	3 Years

### APPLICATIONS

Commissioning HVAC systems, monitoring air duct velocity, testing and balancing HVAC systems, monitoring wind speed, verifying room pressure in critical care facilities, etc.

Model#:	Cat#:
SRP-004-LPD-0.5	01-0310
SRP-004-LPD-1	01-0311
SRP-004-LPD-2	01-0312
SRP-004-LPD-5	01-0313
SRP-004-LPD-10	01-0314