SmartReader Plus 4 LPD

Two-Channel Low Pressure Differential and Temperature Data Logger

The SmartReader Plus 4 LPD (Low Pressure Differential) data 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.

APPLICATIONS

Commissioning HVAC systems, monitoring air duct velocity, testing and balancing HVAC systems, monitoring wind speed, verifying positive pressure in critical facilities such as medical and manufacuring, etc.

GENERAL SPECIFICATIONS

Size:	107mm x 74mm x 22mm (4.2” x 2.9” x 0.9”)
Weight:	110 g (3.75 oz)
Case Material:	Noryl® Plastic
Battery:	3.6 volt Lithium
Resolution:	12-bit (1 part in 4096)
Mounting:	Magnetic backing or locking 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°C to 70°C (-40°F to 158°F) and 0 to 95% RH (non-condensing)
PC Requirements:	Windows PC with at least one free USB or serial port (depending on interface)
Software Requirements:	TrendReader® 2 (Compatible with Windows XP, Vista, Windows 7 and Windows 8 [32 bit & 64 bit])
Memory Size:	32 KB (capable of storing up to 21,500 readings)
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:	Two (one for the internal temperature sensor and one for the internal pressure sensor)

SENSOR SPECIFICATIONS

Internal Temperature Sensor

Type:	NTC Thermistor - 10,000 Ohm @ 25°C (77°F)
Range:	-40°C to 70°C (-40°F to 158°F)
Accuracy:	±0.2°C over the range of 0°C to 70°C (± 0.3°F over the range of 32°F to 158°F)
Resolution:	0.03°C (0.05°F) @ 25°C; better than 0.07°C (0.12°F) between -25°C and 70°C (-13°F and 158°F); better than 0.13°C (0.23°F) between -40°C 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
Compensated Thermal Accuracy 0°C-70°C (32°F-158°F)	±0.01 inWC (±2.5Pa)
Long Term Stability	±0.01 inWC (±2.5Pa)

Range:	Accuracy:	Resolution:
±0.5 inWC (±120 Pa)	±0.05 inWC (±12.5 Pa)*	<0.001 inWC (0.25 Pa)
±2 inWC (±500 Pa)	±0.05 inWC (±12.5 Pa)*	<0.001 inWC (0.25 Pa)
±10 inWC (±2.5 kPa)	±0.1 inWC (±25 Pa)	<0.01 inWC (2.5 Pa)

* ±0.01 inWC (±2.5Pa) with Pressure Sensor Characterization - Consult Factory

ORDERING INFORMATION

Item:	Cat#:	Item:	Cat#:
SRP-004-LPD-0.5-32K	01-0310	SRP-004-LPD-5.0-32K	01-0313
SRP-004-LPD-1.0-32K	01-0311	SRP-004-LPD-10.0-32K	01-0314
SRP-004-LPD-2.0-32K	01-0312		

ACR 24/7/365 10yr Battery

ISO 9001 Certified

CE