



SmartReader Plus 7

Eight-Channel Process Signal Data Logger

The SmartReader Plus 7 data logger is a versatile data logger for easy recording of common process signal variables. With seven input channels, the logger is ideal for monitoring (through commercially available transducers) a wide variety of measurement parameters.)

APPLICATIONS

Monitoring wind speed, flow, tank level, pressure, current, voltage, power, SCADA troubleshooting, 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) <i>*Not available with sample rates faster than eight seconds</i>
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) 128 KB (capable of storing up to 87,000 readings) 1.5 MB (capable of storing up to 1,048,000 readings)
<i>(3 memory sizes available)</i>	
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:	Eight (One for the internal temperature sensor and seven external channels for analog voltage and current loop signals.)



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)

Standard Model (SRP-007)

Input Range*

- 0 to 2.5V DC (1 channel)
- 0 to 5V DC (2 channels)
- 0 to 10V DC (1 channel)
- 0 to 200mV DC (1 channel)
- 0 to 25mA DC (2 channels)

Maximum Protection

- Voltage channels: ± 40V (reverse-polarity protected)
- Current channels: ± 70mA (reverse-polarity protected)

Accuracy: ±0.5% of full scale

Other Models

Input Range*

- All external channels: 0 to 2.5V DC (SRP-007-0-2.5V)
- All external channels: 0 to 5V DC (SRP-007-0-5V)
- All external channels: 0 to 10V DC (SRP-007-0-10V)
- All external channels: 0 to 25mA (SRP-007-25mA)

Input Impedance

- >1M Ohm (200mV channel)
- >1M Ohm (0 to 2.5V channel)
- >1M Ohm (0 to 5V channel)
- >1M Ohm (0 to 10V channel)
- 20 Ohm (0 to 25mA channel)

*Transducer restrictions: The use of a single power supply is recommended to avoid ground loops or use loop isolators.

ORDERING INFORMATION

Item	Cat#	Item	Cat#	Item	Cat#
SRP-007-32K	01-0014	SRP-007-0-5V-32K	01-0107	SRP-007-0-10V-1.5M	01-0155
SRP-007-128K	01-0123	SRP-007-0-5V-128K	01-0124	SRP-007-25mA-32K	01-0017
SRP-007-1.5M	01-0152	SRP-007-0-5V-1.5M	01-0154	SRP-007-25mA-128K	01-0126
SRP-007-0-2.5V-32K	01-0018	SRP-007-0-10V-32K	01-0020	SRP-007-25mA-1.5M	01-0156
SRP-007-0-2.5V-128K	01-0127	SRP-007-0-10V-128K	01-0125		

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ISO 9001 Certified

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Rev:12 - 11/07/12

