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)
	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)
(3 memory sizes available)	128 KB (capable of storing up to 87,000 readings)
	1.5 MB (capable of storing up to 1,048,000 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:	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^{o}C over the range of 0°C to 70°C (± 0.3^{o}F over the range of 32°F to 158°F)
Resolution:	0.03^{o}C (0.05^{o}F) @ 25°C; better than 0.07^{o}C (0.12^{o}F) between -25°C and 70°C (-13°F and 158°F); better than 0.13^{o}C (0.23^{o}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)

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)

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

Accuracy: ±0.5% of full scale

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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