



SmartReader 7

Eight-Channel Process Signal Data Logger

The SmartReader 7 data logger is a versatile data logger that can monitor and record a variety of different process signals including the popular 4-20mA and 0-5V. With its 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:	8-bit (1 part in 256)
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)
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 SP3, Windows Vista SP2 & Windows 7 (32 bit & 64 bit))
Memory Size:	32 KB (capable of storing up to 32,767 readings)
Sampling Rates:	User selectable rates from 8 seconds to 5 days in 4-second increments
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 to 70°C (± 0.3°F over the range of 32°F to 158°F)
Resolution:	0.4°C (0.7°F) @ 25°C; better than 1°C (1.8°F) between -25°C and 70°C (-13°F and 158°F); better than 2.0°C (3.6°F) between -40°C and -25°C (-40°F and -13°F)

Standard Model (SR-007)

Input Range*

- 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: ±1% of full scale

*Transducer restrictions:

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

Other Models

Input Range*

- All external channels: 0 to 10V DC (SR-007-0-10V)
- All external channels: 0 to 25mA (SR-007-25mA)

Input Impedance

- >1M Ohm (200mV channel)
- >1M Ohm (0 to 2.5V channel)
- 20K Ohm (0 to 5V channel)
- 40.9K Ohm (0 to 10V channel)
- 100 Ohm (0 to 25mA channel)

ORDERING INFORMATION

Item	Cat#
SR-007	01-0031
SR-007-10V	01-0041
SR-007-25mA	01-0032

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