

# SmartReader 5

## Product Specifications

**Type:** Three-Channel Temperature Thermocouple

### 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>	8-bit (1 part in 256)
<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)
<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® 2 (compatible with Windows® 2000, and XP)

<b>Memory Size:</b>	32KB (capable of storing up to 32,767 readings)
<b>Sampling Rates:</b>	User selectable rates from 8 seconds to 5 days in 4-second increments
<b>Number of Channels:</b>	Three (one internal thermistor for cold-junction compensation and two external channels for narrow range and wide range thermocouples)

### SENSOR SPECIFICATIONS

#### Temperature Sensor (internal)

<b>Type:</b>	NTC Thermistor - 10,000 Ohm @ 25°C (77°F)
<b>Range:</b>	-40 to 70°C (-40 to 158°F)
<b>Accuracy:</b>	+/- 0.2°C over the range of 0 to 70°C (+/- 0.3°F over the range of 32 to 158°F)
<b>Resolution:</b>	0.4°C (0.7°F) @ 25°C; better than 1°C (1.8°F) between -25 and 70°C (-13° and 158°F); better than 2.0°C (3.6°F) between -40 and -25°C (-40°F and -13°F)

Thermocouple Wire	Range	Resolution
J type Channel #2 (Wide)	-50 to 600°C (-55 to 1100°F)	5°C (9°F)
Channel #1 (Narrow)	-20 to 190°C (0 to 370°F)	1.4°C (2.5°F)
K type Channel #2 (Wide)	-100 to 900°C (-145 to 1650°F)	6.7°C (12°F)
Channel #1 (Narrow)	-25 to 230°C (-10 to 440°F)	1.7°C (3°F)
S type Channel #2 (Wide)	0 to 1760°C (32 to 3200°F)	23°C (41.5°F)
Channel #1 (Narrow)	0 to 960°C (32 to 1750°F)	7°C (12.6°F)
T type Channel #2 (Wide)	-200 to 400°C (-325 to 750°F)	6.7°C (12°F)
Channel #1 (Narrow)	-35 to 200°C (-30 to 390°F)	1.7°C (3°F)

#### Accuracy

+/- 1% of range + resolution

The SmartReader 5 data logger is ideal for those applications that require monitoring extremely high temperatures or monitoring temperature over a wide range. The logger has one internal channel for measuring ambient temperature and two external channels for use with ACR thermocouple wire or any J, K, S or T type thermocouple wire.



### WARRANTY

<b>Internal Battery:</b>	<b>10 Years</b>
<b>Data Logger:</b>	<b>3 Years</b>

### APPLICATIONS

Monitoring performance of gas-fired heating equipment, verifying concrete curing temperatures, process verification, etc.

<b>Model#:</b>	<b>Cat#:</b>
SR-005	01-0028