



## SmartReader 5

### Three-Channel Temperature Data Logger

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.

#### APPLICATIONS

Tracking performance of pneumatically controlled valves; verifying thermostat and humidistats; monitoring sensitive shipments, 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 2000 SP4, XP SP1 and Vista 32 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:	Three (one internal thermistor for cold-junction compensation and two external channels for narrow range and wide range thermocouples)



#### 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:	0.4°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)

##### Thermocouple Wire

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

**Accuracy:** ±1% of range + resolution

#### ORDERING INFORMATION

<b>Item:</b>	<b>Cat#:</b>
SR-005 (SmartReader 5)	01-0028

