



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

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

GENERAL SPECIFICATIONS

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|------------------------|--|
| 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: | Three (one internal thermistor for cold-junction compensation and two external channels for narrow range and wide range thermocouples) |



SENSOR SPECIFICATIONS

Internal Temperature Sensor

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|-------------|---|
| 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

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|--------------|--------------|
| Item: | Cat#: |
| SR-005-32K | 01-0028 |

