**ACR SYSTEMS INC.**

## Product Specifications
### PROVEN DATA LOGGING SOLUTIONS

# SmartReader Plus 5

## Three-Channel Temperature Data Logger

The SmartReader Plus 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, T or E type thermocouple wire.

## APPLICATIONS

Monitor performance of gas-fired heating equipment, verifying concrete curing temperatures, process verification, 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) |
| *(2 models available)* | 128 KB (capable of storing up to 87,000 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: | 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: | 0.03°C (0.05°F) @ 25°C; better than 0.07°C (0.12°F) between -25°C and 70°C (-13°F and 158°F); better than 0.13°C (0.23°F) between -40°C and -25°C (-40°F and -13°F) |

| Thermocouple Wire | Range | Resolution |
|---|---|---|
| J Type | -50°C to 600°C (-55°F to 1100°F) | 0.30°C (0.55°F) |
| K Type | -100°C to 1150°C (-145°F to 2100°F) | 0.50°C (0.90°F) |
| S Type | 0°C to 1450°C (32°F to 2642°F) | 1°C (1.8°F) |
| T Type | -200°C to 400°C (-325°F to 750°F) | 0.40°C (0.75°F) |
| E Type | -50°C to 680°C (-58°F to 1250°F) | 0.24°C (0.44°F) |

**Accuracy:** ±0.5% of range + resolution

## ORDERING INFORMATION

| Item: | Cat#: |
|---|---|
| SRP-005-32K | 01-0012 |
| SRP-005-128K | 01-0121 |

ACR 24/7/365 **10yr** Battery

CE

Rev:11 - 11/07/12