



## SmartReader Plus 10

### Four-Channel Temperature Data Logger

The SmartReader Plus 10 is a powerful and accurate RTD temperature logger designed for easy monitoring and recording of temperature. Any RTD probe or sensor with a TCR of 0.00385 can be used with this logger.

#### APPLICATIONS

Food process verification, pharmaceutical storage monitoring, transportation of temperature-sensitive goods, 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)<br><i>*Not available with sample rates faster than eight seconds</i>                                                                              |
| 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:           | 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:    | Four (one internal thermistor channel for ambient temperature and three external channels for use with RTD* temperature probes) *Any RTD with a Temperature Coefficient of Resistance (TCR) of 0.00385 can be used |



#### SENSOR SPECIFICATIONS

**RTD Channels** - The following specifications are for:

4-Wire Platinum 100 Ohm @ 0°C & TCR = 0.00385

4-Wire Platinum 1000 Ohm @ 0°C & TCR = 0.00385

##### Temperature

Range: -230°C to 300°C (-382°F to 572°F)

Accuracy: ±0.3°C (±0.54°F) + resolution or ±0.06% full scale (of logger)

Resolution: ±0.14°C (±0.25°F)

##### Resistance (100 Ohm)

Range: 5 to 210 Ohm

Accuracy: ±0.13 Ohm, ±0.06% full scale

Resolution: ±0.05 Ohm

##### Resistance (1000 Ohm)

Range: 50 to 2100 Ohm

Accuracy: ±1.3 Ohm, ±0.06% full scale

Resolution: ±0.5 Ohm

Logger is Temperature compensated by internal temperature sensor for the range of -20°C to 80°C (-4°F to 176°F)

#### ORDERING INFORMATION

|              |              |
|--------------|--------------|
| <b>Item:</b> | <b>Cat#:</b> |
| SRP-010-128K | 01-0132      |

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