SCORPION® 2 Data Logger
with *SMART SENSOR TECHNOLOGY™*

The **SCORPION® 2 Data Logger** is the 'brain' of the measurement system, capturing and storing profile data from the Smart Sensors for subsequent downloading to a computer for display and analysis. It can capture data from up to 32 sensor/input channels as fast as 10 times per second. The captured profiles are saved in non-volatile memory until the user chooses to delete them.

SMART SENSOR TECHNOLOGY™ is employed on all SCORPION® 2 sensors and is the key to user friendly operation. Smart Sensors simplify the data collection process, enabling line workers without specialized training to handle test runs. Data from each run is stored in the data logger and can be downloaded for analysis, in a convenient office location, at a later time. Smart sensor technology allows the Data Logger to automatically recognize the attached sensor and perform a self-test. Each **Smart Sensor™** contains embedded memory which is programmed during manufacturing. The embedded memory contains calibration data, date of calibration, sensor type, sensor serial number and date of manufacture.

Smart sensors are attached to the data logger via two 32-pin D-Sub connectors and an easily-aligned self-latching mechanism. Multiple profiles can be collected with the same or different sensor without returning to a computer and downloading data between runs. When ready to download and analyze data the user simply starts the SCORPION® Software (SV8) and connects the data logger to the computer via a USB cable.

The SCORPION® 2 Data Logger contains an onboard **User Interface** which enables data collection without the need of a computer on the factory floor. Immediately upon connecting a Smart Sensor, a communication link is established between the data logger and sensor and a self-test is initiated. The result of this test is indicated by a **Ready Light**, allowing the user to confidently proceed with data collection knowing that all data logger and sensor parameters are within operational limits. Pressing the **Test** button displays the **Memory** and **Battery** capacity, cautioning the user as the minimum amount of time remaining drops below two hours. The **Test** button is also used to select a **Scan Rate** of 0.1, 0.5, 1, 2, or 4 seconds.

Technical Summary*:

- Input Channels: 32
- Thermocouple Input Type: Type T
  - Type J & K optional for product probe inputs
  - Input Temperate Range: -260°C - 1378°C (-436°F - 2513°F)
- Output Channels:
  - (3) Constant Current sources for Air Velocity sensors
  - 7.2V unregulated output for Humidity Sensor heater
  - Regulated 5V output for Humidity Sensor
  - Regulated 3.3V output for SMART SENSOR Memory
- Sensor Interface: 32-pin D-Sub connectors
- Scan Interval: 0.1sec, 0.5sec, 1.0sec, 2.0sec, 4.0sec
- Memory Type: Non-volatile FLASH
- Memory Capacity (max):
  - Up to 100min @ 0.1sec scan rate
  - Up to 8hrs @ 0.5sec scan rate
  - Up to 17hrs @ 1sec scan rate
  - Up to 35hrs @ 2sec scan rate
  - Up to 70hrs @ 4sec scan rate
- Time Tracking: Onboard Real Time Clock – Time / Date
- Resolution: 0.025°C (0.045°F)
- Accuracy: ±1.0°C (±1.8°F)
- Battery Running Time: 50+ hrs. for Temperature Sensor Arrays, Interface Devices and Heat Flux Sensor
  Automatically adjusts for Air Velocity & Humidity Sensors
- Battery: 7.2V, 2200mAh
- PC Communication Link: USB 2.0
- Rugged Stainless-steel enclosure

**Not rated for condensing environments*

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