# E-VAL PRO

# Ellab is introducing the next generation wired data acquisition system for thermal validation

8" Touch Display



### INTRODUCING THE NEW E-VAL PRO

The new E-Val Pro allows for easier access to controlled environments due to its compact size and light weight. Its flexible configuration can handle up to 40 channels per module. The large internal memory is capable of holding up to 10 studies.

The E-Val Pro also contains a rechargeable internal battery that can power the module for 2 hours (8 hours optional). The module can be used as a stand-alone unit or it can be connected via LAN/USB.

E-Val Pro utilizes ValSuite™ Pro validation software with powerful reporting tools. This allows for users to combine data loggers and thermocouples in the same study. Software and hardware are developed according to GAMP and comply with requirements from FDA and other regulatory bodies.

### **UP TO 40 CHANNELS PER MODULE**

Interchangeable sensor arrays are supplied and each can accommodate up to 12 thermocouple or analog/digital inputs. Sensors can be organized into groups for real time statistical analysis.

The traceable and interchangeable thermocouples comprise of a smart USB connector that is molded and sealed. Built-in cold junction compensation is integrated into each USB connector. Each connector maintains the calibration offsets reducing the pre and post calibration time and efforts.



# E-VAL PRO



Master Module with sensor arrays for 40 channels



Interchangeable sensor arrays

### **MASTER MODULE**

- Slots for one high power (100 mA/5 V) 4 channel sensor array and three low power (40 mA/5 V) 12 channel sensor arrays
- Flexible configuration from 4 to 40 channels
- 1 sec. to 24 hour sample rate (all 40 channels)
- 512 MB flash memory
- 10 sessions with 40 channels, 1 sec. sample rate, 8 hours can be stored (approx. 11.5 million samples)
- Secure shutdown in case of power failure
- Rechargeable internal battery pack for 2 hours operation (8 hours optional)
- 12V DC external power supply
- 2 x USB2, one for memory stick and one for connection to PC.
- LAN Port.
- Windows embedded Compact 7 operating system.
  Ellab modified. Irrelevant code and ports disabled
- IP40
- Size: 220 x 270 x 82 mm / 8.7"x 10.6" x 3.2" (L x W x H)
- Weight: 3.0 kg. / 6.6 lbs. (w/ 2 hour battery pack)

## **PERFORMANCE**

- Measuring range: -200°C to +1,300°C (ready for -270°C to +1,820°C)
- Resolution: 0.01°C
- Operating range: 5-50°C
- Accuracy of the E-Val Pro module (sensor array) is +/-0.05°C (type T) in an operating environment of +20°C to +30°C
- Accuracy of a calibrated Ellab type T smart TC is +/-0.05°C from -50°C to +150°C
- Total system accuracy with calibrated Ellab type T smart TC is +/-0.10°C
- 3 Modules / 120 channels max in one ValSuite™ session/study

### INTERCHANGEABLE SENSOR ARRAY

- Contains precision voltmeter
- 4 channel multipurpose, accommodates: TC type T and K (ready for type J, B, E, N, R and S), 4-20 mA, 0-10 V and I/O relay
- 12 channel TC type T and K (ready for type J, B, E, N, R and S) as well as other low power analog/digital inputs



### **SMART USB CONNECTORS**

- Internal PT1000 sensor for cold junction compensation
- ID # for traceability
- Memory for calibration offsets (factory and user)
- Fully sealed/mounted TC or optional plug with screw terminals
- Separate plugs for: Thermocouples, Ellab pressure and RH sensors and 4-20 mA or 0-10 V sensors

