

Dry Block Calibrators

-40°C to 150°C

Wide Temperature Range

CALsys -40/150 & Autocal -40/150 offer a wide temperature range from -40 °C to 150 °C

Lightweight, Portable

The CALsys -40/150 & Autocal -40/150 block is ideal for Industrial/ Laboratory field use. It only weighs about 19.5 kg.

Speed

The CALsys -40/150 & Autocal -40/150 extremely quick to reach various temperature. i.e. it cools down to -40°C in 30 minutes and heats up room temperature to +140 °C in 30 minutes. This saves time and increases productivity.

Accuracy and performance

The CALsys -40/150 & Autocal -40/150 is an easily portable unit that also provides excellent calibration accuracy and with stability $\pm 0.07^\circ\text{C}$.

Computer Interface

The communication port (USB) enables communication with selected CALsys -40/150 & Autocal -40/150 calibration for automation calibration and documentation easy.

CALsys -40/150

Autocal -40/150

Highly accurate & Automatic Dry Block Calibrator for Industrial/Laboratory field use



CALsys -40/150 & Autocal -40/150 easy to use portable low temperature calibrator with temperature range from -40 to 150°C. It is a highly stable standard calibrator for calibrating RTD & Thermocouple. This calibrator can be used on site for temperature calibration and also find its application in aerospace, oil gas petrochemical, pharmaceutical industry, electric power, automotive and material process industry. The comparison volume is a metallic fixed block of special material, which has a diameter of 40mm and 120mm long.

This is Low temperature dry block calibrator based on thermoelectric cooling circuitry. This model is specially designed for isothermal enclosure which can calibrate sensor against the calibrator. Temperature of the calibrator is set and controlled by a self tuned PID controller with automatic super fine adjustment.

The Autocal -40/150 is an automatic temperature calibration system for the Thermocouple and RTDs. The system consists of Temperature bath and PC software, which together contribute to the whole cycle of auto calibration process. The system accept 4 channels, 4 Thermocouples or 4 RTDs. The connection for these channels through special type of locking connectors. The channel configuration can be done with LCD display via touch screen keypad. The thermocouple microvolt & RTD ohm reading for each channel is monitored with CJC compensation. After the calibration process complete the PC software generates a report of actual calibrated values for the inputs.

Specifications

CALsys -40/150 & Autocal -40/150

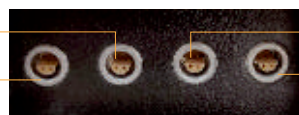
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| Temperature Range at 23°C | -40°C to 150°C |
| Stability | ±0.04°C at -40°C |
| | ±0.05°C at 0°C |
| | ±0.07°C at 150°C |
| Radial Uniformity | ±0.05°C at -40°C |
| | ±0.07°C at -0°C |
| | ±0.09°C at -150°C |
| Fixed insert dimensions | 40 mm (Non removable insert) |
| Immersion depth | 120 mm |
| Cooling time | 30 Min (ambient to -40°C) |
| Heating time | 30 Min (ambient to 150°C) |
| Stability time | 15 Min |
| Display | LCD, °C or °F user selectable |
| Power requirements | 230 VAC or 110 VAC 50/60 Hz 1 KW |
| Calibration | Accredited calibration certificate provided (Optional) |
| Environmental Operating conditions | 0°C to 23°C |
| PC interface | USB |
| Size (HxWxD) | 425(H) x 230(W) x 305(D) mm |
| Weight | 19.5 kg |
| Input | Four channels (one master and three test sensors). High quality universal LEMO connector suitable both for T/C K, N, T, R, S, B type) and RTD |
| Software | The calibrator will be provided with software for data recording (Manual Mode) and Excel generation in Auto Mode |

SENSOR CONNECTION (Autocal -40/150)

The Calibration system provides calibration upto four channels i.e. one master and three test sensors.

Connection for First TEST Sensor

Connection for MASTER Sensor

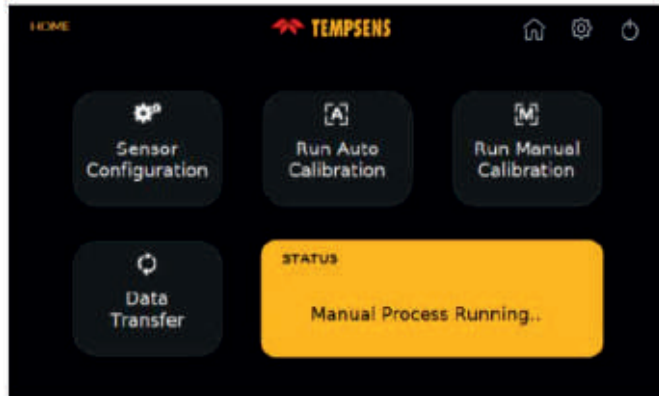


Connection for Second TEST Sensor

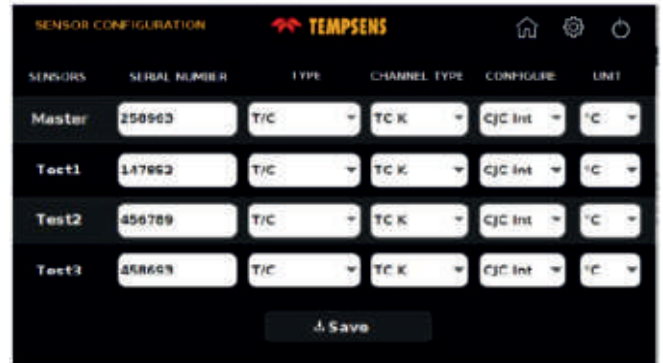
Connection for Third TEST Sensor

User Interface

Home Screen: In this screen user can select sensor configuration (for selection of type of sensors), mode of operation (auto / manual) and data transfer (file transfer). This window also shows the ongoing process.

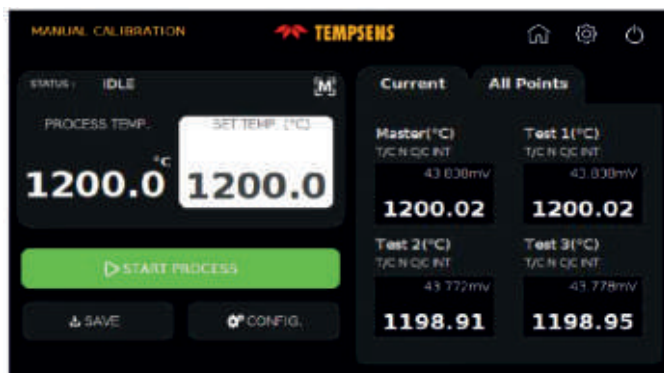


Sensor Configuration: In this screen user select the sensors Thermocouple (J, K, B, N, R, S, T type) / RTD (PT 100, PT 1000, PT50 etc.) for calibration with their serial number and temperature unit (C/F/K).

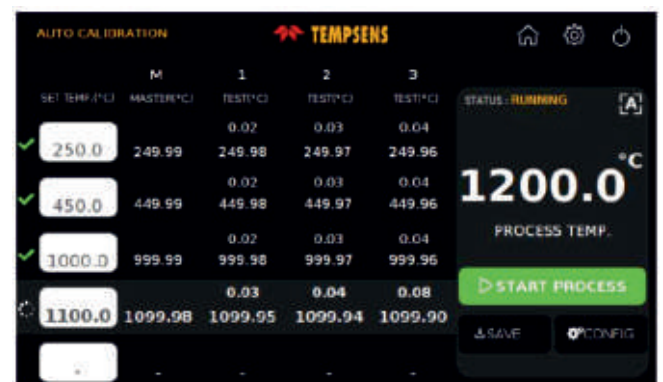


CALsys have two operating modes i.e. Manual and Auto mode

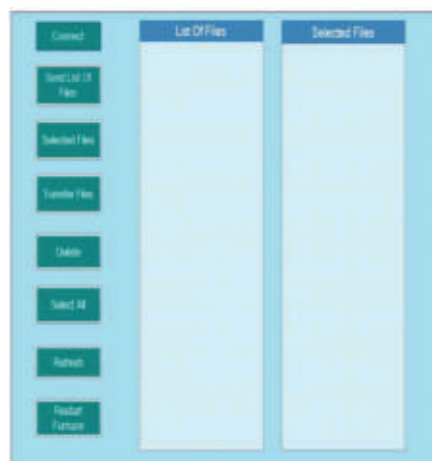
Manual Mode: In this screen user set the temp. Point for calibration and on clicking start process button the process of calibration starts



Auto Mode : In this screen user sets the temperature Points for calibration (Max 5 Points)



SOFTWARE : Tempsens make Easy to use Customized software enables end user to access temperature data both for Manual mode and Automode



ACCESSORIES

- **Inserts for CALsys models**

Inserts for CALsys are made of special material have multi holes of 4x6.5mm. All specifications on hole size based on outer diameter of the sensor under test.

*We also offer customized hole size based on Customer requirements.

Note : In this, the insert is fixed and holes can be customized.

- Reference Standard Thermocouple (RTD)
- Calsoft Software
- Operational Manual
- Carry Case
- NABL accredited calibration certificate (Optional)

