OneTemp pty ltd
measure | control | record

TEMPSENS

Dry Block Calibrators

Wide Temperature Range

CALsys 650 & CALsys 650 Autocal offer a wide temperatur range from 50 °C to 650 °C

Lightweight, portable

The CALsys 650 & CALsys 650 Autocal block is ideal for Industrial/ Laboratory field use. It only weight about 8 kg , and it is small enough to carry around.

Speed

The CALsys 650 & CALsys 650 Autocal extremely quick to reach various temperatures, i.e. it cools down to 100 °C in 80 minutes and heats up room temp to +650 °C in 20 minutes. This saves time and increases productivity

Accuracy and performance

The CALsys 650 & CALsys 650 Autocal is an easily portable unit that also provides excellent calibration accuracy with stability ± 0.04°C at 650 °C.

Accredited calibration

Each CALsys 650 & CALsys 650 Autocal is delivered with an accredited calibration certificate.

Computer Interface

The communication port (LAN / USB) enables communication with selected CALsys 650 PLUS & CALsys 650 calibrators for automation calibration and documentation.

CALsys 650
CALsys 650 Autocal

Portable, Highly Stable & Automatic Temperature Calibrator for Industrial/ Laboratory Field Use

CALsys 650 Autocal   CALsys 650

CALsys 650 & CALsys 650 Autocal offers easy to use portable temperature calibrator with medium temperature range from 50 to 650°C. It is a highly stable standard furnace for calibrating thermocouples / RTD. This calibrator can be used on site in workshops, Test and measurement rooms as well as laboratories. The comparison volume is a metallic block of special material, which has a diameter of 32mm and 150mm long. The CALsys 650 Autocal is an automatic temperature calibration system for the Thermocouple and RTD's. 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 RTD's. 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. Our newly designed CALsys 650 & CALsys 650 Autocal model offers better esthetic design and performance wise upgraded to next level. This model offers better cooling time which is 2 times faster than our old model and has stability 30% better than the old model. Hence our new model not only saves important time for our valuable customer but also provides better performance.

With the Tempsens make Compact Temperature Calibrator, you have chosen an extremely effective instrument which we hope will live up to all your expectations. This is a fast, timesaving, and reliable true industrial temperature calibrator designed for on-site use.
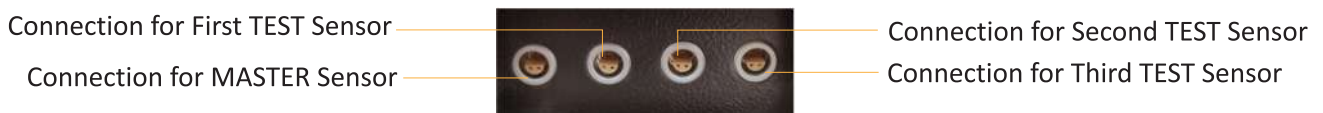
SPECIFICATIONS

CALsys 650 Autocal & CALsys 650

Temperature range	50 °C to 650 °C
Accuracy	±1 °C
Stability	±0.01°C at 50°C
	±0.02°C at 350°C
	±0.03°C at 650°C
Radial uniformity	±0.04°C at 50°C
	±0.07°C at 350°C
	±0.09°C at 650°C
Loading effect (with a 6.35 mm reference probe and three 6.35 mm probes)	0.04 °C
Hysteresis	0.02 °C
Insert OD dimensions	32 mm
Immersion depth	120 mm
Cooling time	80 Min (650 °C to 100 °C)
Heating time	20 Min
Resolution	0.1 °C
Display	LCD, °C or °F user-selectable
Power requirements	230 VAC, 1 KW(50 Hz)
Calibration	Accredited calibration certificate provided
Environmental operating conditions	0°C to 40°C, 0% to 90% RH (non-condensing)
Specifications valid in environmental conditions	13°C ... 33°C
PC Interface	Ethernet port（CALsys 650 PLUS），RS - 232（CALsys 650）
Size (H x W x D)	325(H) x 185(W) x 265(D) mm
Weight	8 Kg
Input (CALsys 650 Autocal)	**Four channels(one master and three test sensors).high quality universal LEMO connector suitable both for T/C (J, K, N, T, R, S, B type) and Rtd**
Software CALsys 650 Autocal)	**The calibrator will be provided with software for data recording (Manual Mode) and Test Certificate genration in Auto Mode**
Data logging (CALsys 650 Autocal)	**Data logging facility with logged data export to computer through LAN port (optional USB)**

SENSOR CONNECTION (CALsys 650 Autocal)

The Calibration system provides calibration up to four channels i.e. one master and three test sensors . We use high quality universal LEMO connector i.e. suitable both for T/C and Rtd.

Connection for First TEST Sensor ——— ——— Connection for Second TEST Sensor

Connection for MASTER Sensor ——— Connection for Third TEST Sensor

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.
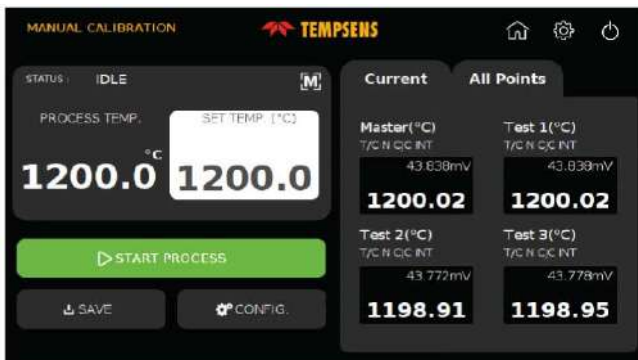
Sensor Configuration: In this screen user select the sensors Thermocouple (J, K, B, N, R, S, T type) / RTD(PT 100, PT 1000, PT 50 etc.) for calibration with their serial number and temperature unit (C/F/K).
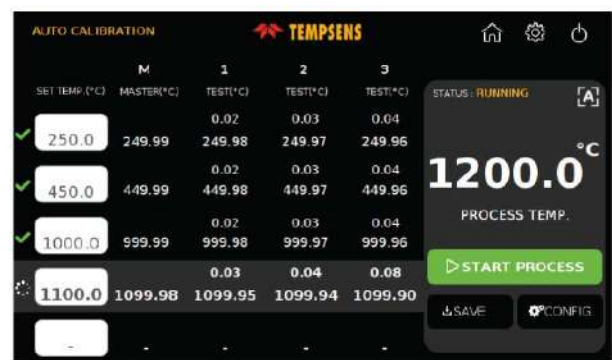

CALSYS 650 Autocal have two operating modes i.e. Manual and Auto mode

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
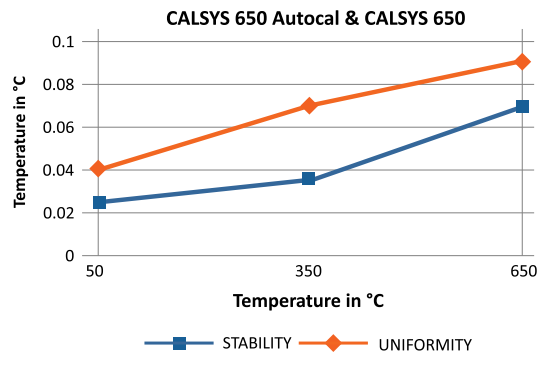
AUTOMATIC CALIBRATION REPORT GENERATION

- Tempsens can offer customized data saving option both for manual and Automode.
- After completion manual/Automode automatic calibration report can be generated at PC side based on pre define format.

STABILITRY & UNIFORMITY

CALSYS 650 Autocal & CALSYS 650

Chart showing Stability and Uniformity with Temperature in °C (y-axis, 0 to 0.1) versus Temperature in °C (x-axis: 50, 350, 650), with legend: STABILITY, UNIFORMITY.
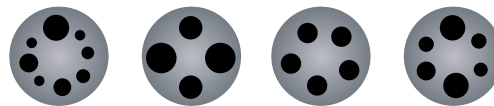
ACCESSORIES

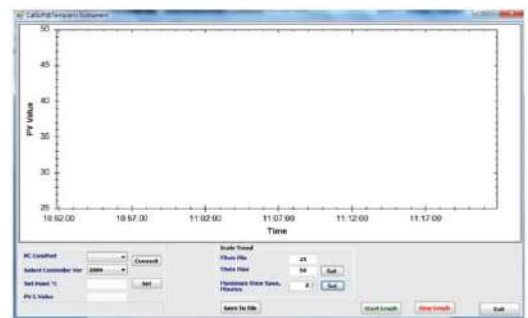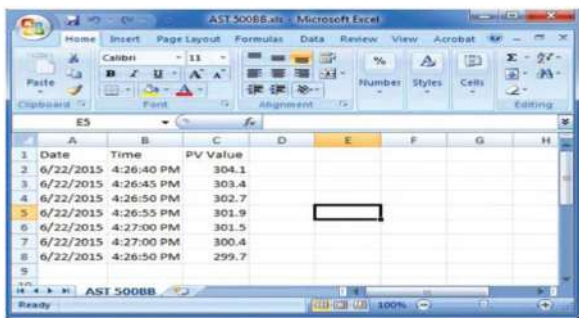### Inserts for CALSYS 650 Autocal & CALSYS 650 models

Inserts for CALsys 650 Autocal & CALsys 650 are made of Brass. All specifications on hole size based on outer diameter of the sensor under test. We also offer customized hole size based on Customer requirements.

Inserts	Description
Ci1	Multihole, 4 x 6.5 mm
Ci2	Special (Customized)

Customized Equalizing Block....Part No. EQ1

SOFTWARE

- CalSoft including for setting bath temperature and monitoring the PV. Graphical representations of PV/TIME with 2 hours data logging.

MASTER SENSOR

- Reference Standard Thermocouple ('K' Type T/C)......

  Part No. TTCK-300

- NABL accredited calibration certificate - 3 point
- Operational Manual

CARRY CASE

- Tempsens makes customized carry case is a rugged, safe perfectly designed to carry our new CALsys Calibrator & different accessories.

TEMPSENS

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