

## CALSYS -30/110

### CALsys -30/110 Autocal

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

## Dry Block Calibrators

### Wide Temperature Range

Calsys -30/110 & CALsys -30/110 Autocal a wide temperature range from -30 °C to 110 °C

### Lightweight, portable

The Calsys -30/110 & CALsys -30/110 Autocal block is ideal for Industrial/ Laboratory use. It only weighs about 11 kg, and it is small enough to carry around.

### Speed

The Calsys -30/110 & CALsys -30/110 Autocal extremely quick to reach various temp., i.e. it cools down to 110 °C in 25 minutes and heats up room temp to +110 °C in 10 minutes. This saves time and increases productivity.

### Accuracy and performance

The Calsys -30/110 & CALsys -30/110 Autocal is an easily portable unit that also provides excellent calibration accuracy with stability  $\pm 0.07^\circ\text{C}$  at 110 °C.

### Accredited calibration

The Calsys -30/110 & CALsys -30/110 Autocal is delivered with an accredited calibration certificate.

### Computer Interface

The communication port (RS-232/ USB) enables communication with selected Calsys -30/110 Calibration for automation calibration and documentation easy.



CALsys -30/110 Autocal

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Calsys -30/110 & CALsys -30/110 Autocal easy to use portable low temperature calibrator with temperature range from -30 to 110 °C. It is a highly stable standard furnace for calibrating RTD. This calibrator can be used on site for high temperature calibration and also find 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 32mm and 120mm long. Low temperature dry block furnace based on thermoelectric cooling circuitry. This model provides special design 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 ne adjustment. Our newly designed Calsys -30/110 model offers better esthetic design and performance wise upgraded to next level. The CALsys -30/110 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.

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.

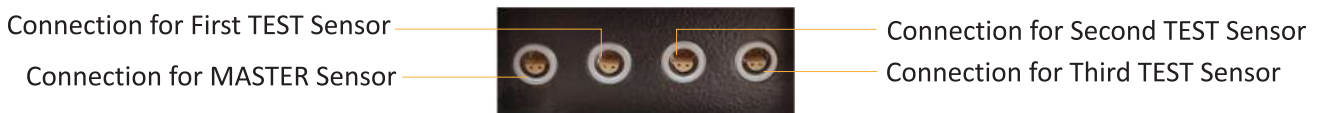
## SPECIFICATIONS

### CALsys -30/110 Autocal & CALsys -30/110

Temperature range at 25°C	-30 °C to 110 °C
Accuracy	±0.5 °C
Stability	±0.04°C at -30°C
	±0.06°C at 0°C
	±0.07°C at 110°C
Radial uniformity	±0.05°C at -30°C
	±0.07°C at 0°C
	±0.08°C at 110°C
Immersion depth	120 mm
Fixed insert dimensions	32 mm
Method of Control	Self tuned PID controller
Heating time	10 Min
Cooling time	25 Min ( 110 °C to -30°C)
Resolution	0.1 C (0.01 C optional)
Display	LCD, °C or °F user-selectable
Size (H x W x D)	380(H) x 170(W) x 188(D) mm
Weight	11Kg
Power requirements	230 VAC, 500W(50 Hz)
Computer interface	RS - 232
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 ... 25 °C
<b>Input (CALsys -30/110 Autocal)</b>	<b>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</b>
<b>Software (CALsys -30/110 Autocal)</b>	<b>The calibrator will be provided with software for data recording (Manual Mode ) and Test Certificate generation in Auto Mode</b>
<b>Data logging (CALsys -30/110 Autocal)</b>	<b>Data logging facility with logged data export to computer through LAN port ( optional USB )</b>

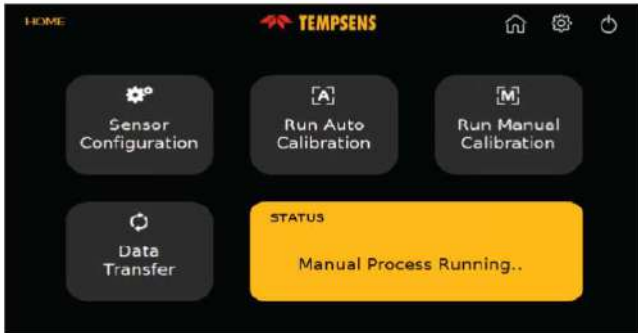
### SENSOR CONNECTION (CALsys -30/110 Autocal)

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.



## USER INTERFACE (CALsys -30/110 Autocal)

**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.

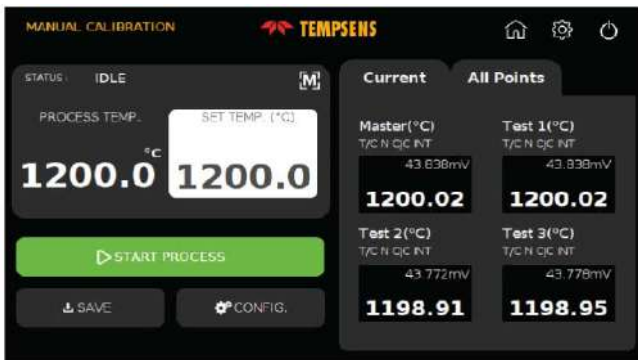


**Sensor Configuration:** In this screen user select the sensors Thermocouple (J, K, B, N, R, S, T type) / RTD(PT 100, PT 1000, PT 50 etc.) for calibration with their serial number and temperature unit (C/F/K).

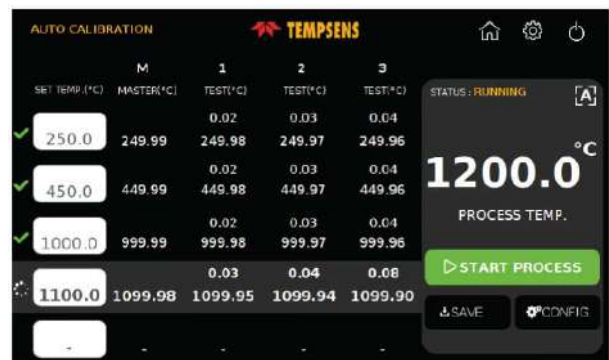


### CALSYS -30/110 Autocal have two operating modes i.e. Manual and Auto mode

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



### AUTOMATIC CALIBRATION REPORT GENERATION (Optional)

- Tempens 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.

**CALIBRATION REPORT (TEMP MEASURING INST.)**

CUSTOMER			Serial No:-	1336/1
INSTRUMENT Desc :		INST. SR.NO :		
MAKE		MODEL NO. :		
RANGE CALIBRATED	400.00	°C	LAB CONDITION (TEMP) :- 25 +/- 5 °C	
DATE OF CALIBRATION	2017-08-24	RECOMMENDED RECALIBRATION DATE :	2018-08-24	

SR.NO	STANDARD TEMP °C	MASTER TEMP °C	ACTUAL TEMP °C	ERROR IN °C (W.R.T. MASTER)	REMARK
1	400.00	420.23	208.91	-211.32	
2	410.00	427.82	208.80	-216.02	
3					
4					
5					

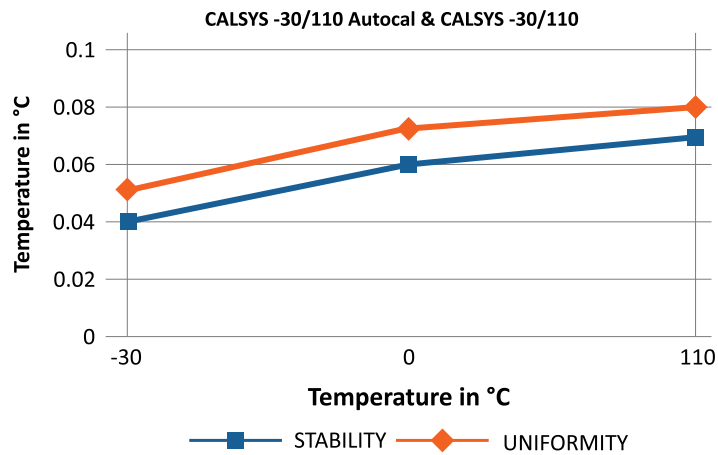
## ACCESSORIES

### Inserts for CALSYS -30/110 Autocal & CALSYS -30/110 models

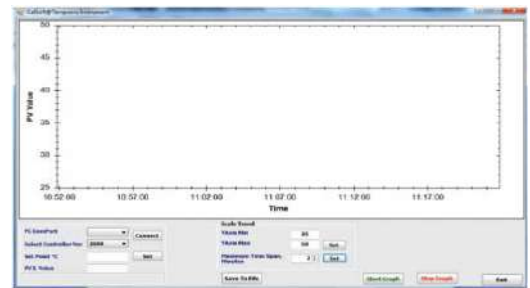
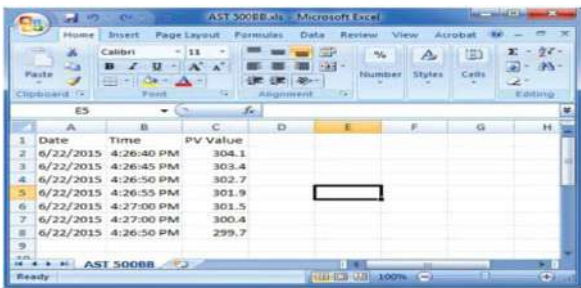
Inserts for CALSYS -30/110 Autocal & CALSYS -30/110 are made of aluminum. All specifications on hole size based on outer diameter of the sensor under test. We also offer customized hole size based on Customer requirements.

Inserts	Description
Ci1	Multihole fixed, 1x8 mm, 2x 6.5mm
Ci2	Multihole, Special customize

## STABILITY & UNIFORMITY



## 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 RTD Part no. TPRT-A-300.



- NABL accredited calibration certificate - 3 point
- Operational Manual

## CARRY CASE



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