TEMPSENS

Portable Temperature Calibrators

-Portable

-Lightweight

-Highly Stable Temperature Calibrator for Industrial Field Uses

www.tempsens.com

TEMPSENS

CALSYS -196/-80

Portable RTD Calibrator for Industrial/ Laboratory Field Use

Dry Block Calibrators

Wide Temperature Range

CALsys -196/-80 offer a wide temperature range from -190 °C to -80 °C

Lightweight, portable

The CALsys -196/-80 block is ideal for Industrial/ Laboratory field use. It only weights about 15 kg, and it is small enough to carry around.

Accuracy and performance

The CALsys -196/-80 is an easily portable unit that also provides excellent calibration accuracy with stability ± 0.1°C at -190 °C.

Accredited calibration

Each CALsys -196/-80 is delivered with an accredited calibration certificate.

Computer Interface

The communication port(RS-232/ USB) enables communication with selected CALsys -196/-80 calibrators for automation calibration and documentation thus it made documentation easy.

CALsys -196/-80 offers ultra low temperature range from -190 to -80°C. It is a highly stable standard source for calibrating Thermocouples / RTD. It has been designed for low temperature range calibration and find application in the glass, pharma, electrical power, automotive & material processing industries. The comparison volume is a metallic block of aluminium having dimension 25mm diameter with 300 mm long which fixed into the liquid nitrogen container for calibration of RTD & thermocouple. The temperature of the calibrator is set and controlled by a self tuned PID controller with automatic super fine adjustment.

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.

During the past several years, we have acquired extensive knowledge of industrial temperature calibration. This expertise is reflected in our products which are all designed for daily use in an industrial environment.

SPECIFICATIONS

Temperature range	-190 to -80°C
Temperature Resolution	1.0°C
Stability	±0.1°C at-190°C
	±0.1°C at -130°C
	±0.1°C at -80
Uniformity	±0.2°C at-190°C
	±0.15°C at -130°C
	±0.17°C at -80
Controlling Sensor	RTD Pt100
Method of Control	Digital self tuned PID Controller
Insert Construction	Dia 25 x 300 mm long (2 x 6 mm & 2 x 8 mm holes) of 300 mm insertion depth
Time to Reach Max Temp	30 Mins
Computer Interface	RS - 232
Operating Temperature	20 to 45°C
Power Requirement	230 VAC, 300 W
Dimensions of Container	580(H) x 280(Dia)
Nitrogen Container	10Ltr.
Dimension of Control Panel	270(H)x380(W)x270(D)
Weight	15Kg (without packing)

ACCESSORIES

STANDARD ACCESSORIES

- NABL accredited calibration certificate - 3 point (Optional)
- Software - Cal Soft including for setting bath temperature and monitoring the PV. Graphical representations of PV/TIME with 2 hours data logging.
- Operational Manual

KEY FEATURE

- Large Immersion Depths
- Wide Operating Range (-190 to -80°C)
- High Stability
- PC interfacing
- Simple to use and cost effective
- Separate control box

OPTIONAL ACCESSORIES

- TEMPMET 08, TEMPMET 09
- Extra Equalizing Block.....Part No. EQ2

TEMPSENS

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A-190, Road No.5, M.I.A., Udaipur-313003 (Rajasthan) INDIA
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TEMPSENS

CALsys -100/40
CALsys -100/40 Autocal

Portable, Lightweight, highly accurate low temperature FPSC system based Calibrator for Industrial/ Laboratory field use

Dry Block Calibrators

Wide Temperature Range

Calsys -100/40 Autocal & Calsys -100/40 offer a wide temperature range from -100°C to 40°C

Lightweight, portable

The Calsys -100/40 Autocal & Calsys -100/40 block is ideal for Industrial/ Laboratory field use. It only weights about 16 kg, and it is small enough to carry around.

Speed

The Calsys -100/40 Autocal & Calsys -100/40 extremely quick to reach various temperatures, i.e. it cools down to -100°C in 70 minutes and heats up room temp to +40°C in 30 minutes. This saves time and increases productivity.

Accuracy and performance

The Calsys -100/40 Autocal & Calsys -100/40 is an easily portable unit that also provides excellent calibration accuracy and with stability ±0.04°C (30 Min).

Cooling Technology

Tempsens provide low temperature dry block calibrator with use of FPSC system.

FPSC system able to cool down calibration block upto -100°C with minimum power.

Accredited calibration

Each Calsys -100/40 Autocal & Calsys -100/40 is delivered with an accredited calibration certificate.

Computer Interface

The communication port (RS-232/ USB) enables communication with selected Calsys -100/40 Autocal & Calsys -100/40 calibrators for automation calibration & documentation so it made documentation easy.

CALSYS -100/40

CALsys -100/40 Autocal

Calsys -100/40 Autocal & Calsys -100/40 offers easy to use portable low temperature calibrator with temperature range from -100 to 40°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 fixed insert with 150mm long. Low temperature dry block furnace based on FPSC cooling system. 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 fine adjustment. Our newly designed Calsys -100/40 model offers better esthetic design and performance wise upgraded to next level. The CALsys -100/40 Autocal is an automatic temperature calibration system for the Thermocouple and RTD's. The system consists ofTemperature 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.

During the past several years, we have acquired extensive knowledge of industrial temperature calibration. This expertise is reflected in our products which are all designed for daily use in an industrial environment.

SPECIFICATIONS

CALsys -100/40 Autocal & CALsys -100/40

Temperature Range*	-100°C to 40°C
Stability (30 Min)	±0.04 °C or Better
Radial Uniformity	±0.05°C or better
Immersion Depth**	150 mm
Method of Control	Self tunned PID controller
Cooling Time	70 Min (Ambient 25°C to -100°C)
Resolution	0.1 °C (0.01 Optional)
Display	LCD, °C or °F user-selectable
Size (H x W x D)	545(H) x 245(W) x 350(D) mm
Weight	16Kg
Power Requirements	230 VAC, 350W
Computer Interface	RS - 232
Calibration	Accredited calibration certificate provided (Optional)
Environmental Operating Conditions	12 °C to 35 °C, 0 % to 90 % RH (non-condensing)
Specifications valid in environmental conditions	15°C ... 30°C
Input (CALsys -100/40 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 -100/40 Autocal)	**The calibrator will be provided with software for data recording (Manual Mode) and Test Certificate genration in Auto Mode**
Data logging (CALsys -100/40 Autocal)	**Data logging facility with logged data export to computer through LAN port (optional USB)**

***** At 28C Ambient Temperature

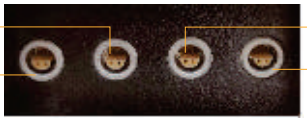
******120mm Deep Plus 30 mm top insulation

Note : Customized options available for resolution and insert construction.

SENSOR CONNECTION (CALsys -100/40 Autocal)

Connection for First TEST Sensor

Connection for MASTER Sensor



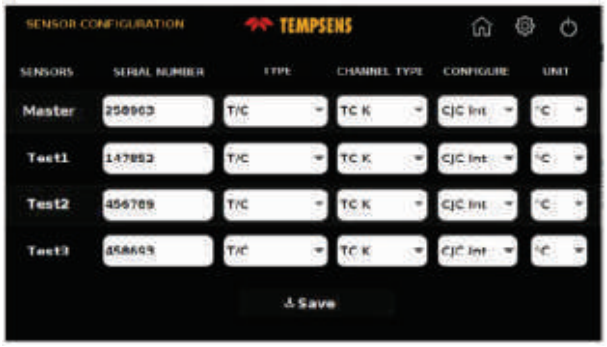
Connection for Second TEST Sensor

Connection for Third TEST Sensor

USER INTERFACE (CALsys -100/40 Autocal)

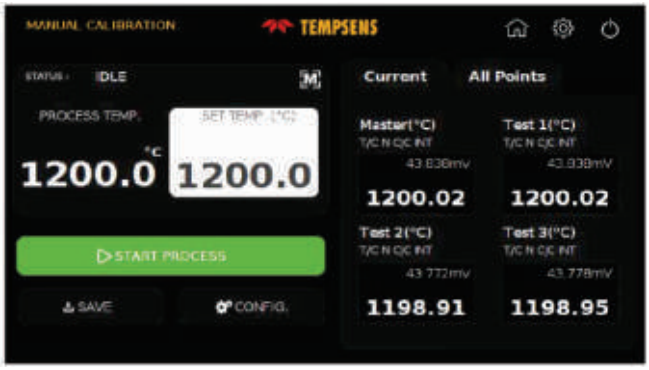
Home Screen: In this screen user can select sensor configuration (for selection of type of sensors), mode of operation (auto / manual) and data transfer (file transfer). This window also shows the ongoing process.

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

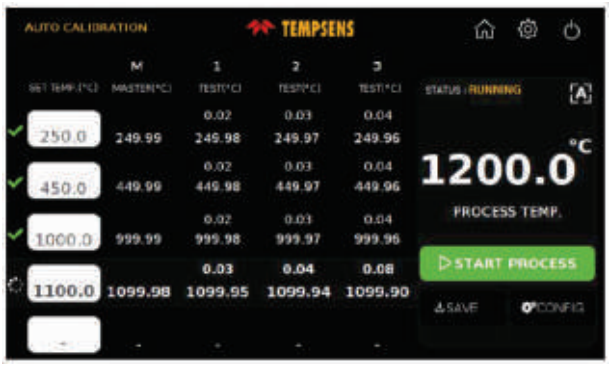


CALSYS -100/40 Autocal have two operating modes i.e. Manual and Auto mode

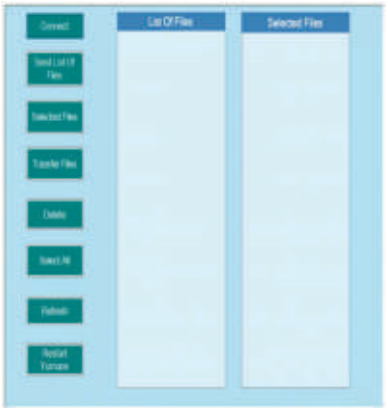
Manual Mode: Inthis screen user set the temp. Point for calibration and on clicking start process button the process of calibration starts



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

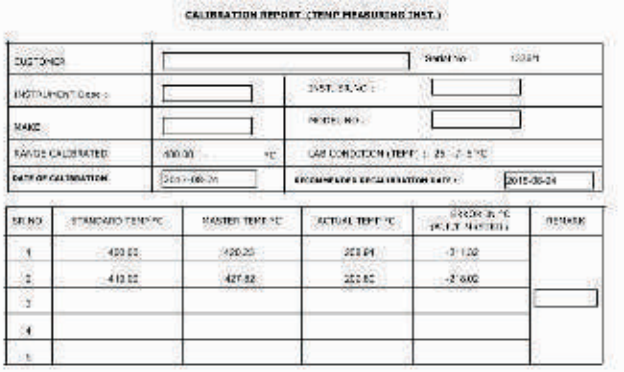


SOFTWARE : Tempsens make Easy to use Customized software enables end user to access temperature data bothfor Manual mode and Automode

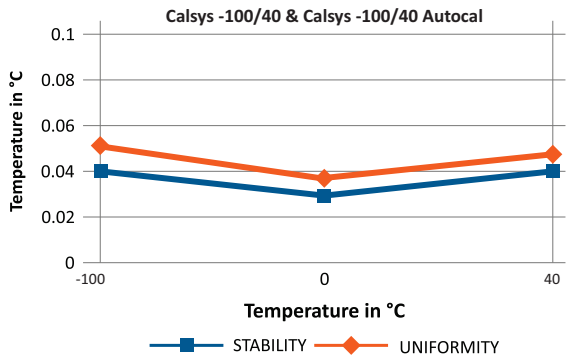


AUTOMATIC CALIBRATION REPORT GENERATION (Optional)

- 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 predefine format.



STABILITRY & UNIFORMITY



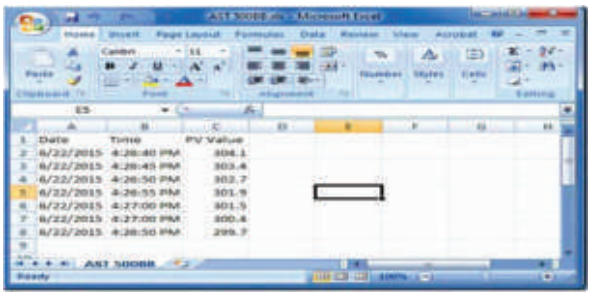
ACCESSORIES

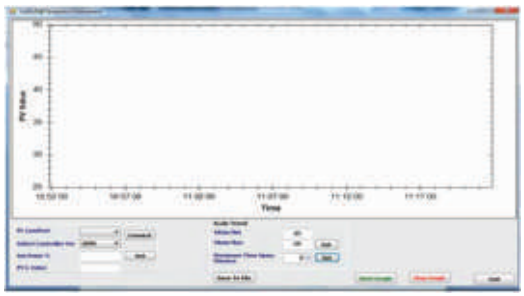
Inserts for Calsys -100/40 Autocal & Calsys -100/40 models

Inserts for CALsys -100/40 Autocal & CALsys -100/40 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, 4x 6.5mm
Ci2	Multihole, Special customize

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 points (Optional)
- Operational Manual

CARRY CASE (Optional)

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

TEMPSENS

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A-190, Road No.5, M.I.A., Udaipur-313003 (Rajasthan) INDIA
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TEMPSENS

CALsys -30/110
CALsys -30/110 Autocal

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

CALsys -30/110 Autocal

CALsys -30/110

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 eld use.It only weights about 13 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 ± 0.07 °C at 110 °C..

Accredited calibration

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

Computer Interface

The communication port (RS-232/ USB) enables communication with selected Calsys -30/100 Calibration for automation calibration and documentation easy.

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 nd 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.

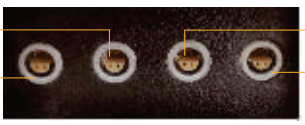
SPECIFICATIONS

CALsys -30/110 Autocal & CALsys 30/110

Temperature range	-30 °C to 110 °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 tunned 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 (HxWxD)	380(H) x 170 (W) x 188 (D) mm
Weight	13 kg
Power requirements	230 VAC,500W (5O Hz)
Computer interface	RS - 232
Calibration	Accredited calibration certificate provided (Optional)
Environmental operating conditions	0°C to 40°C, 0% to 90% RH (non-condensing)
Specifications valid in environmental conditions	l3°C ... 25°C
Input {CALsys -30/110 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 -30/110 Autocal)	**The calibrator will be provided with software for data recording (Manual Mode) and Test Certificate genration in Auto Mode**
Data logging (CALsys -30/110 Autocal)	**Data logging facility with logged data export to computer through LAN port (optional USB)**

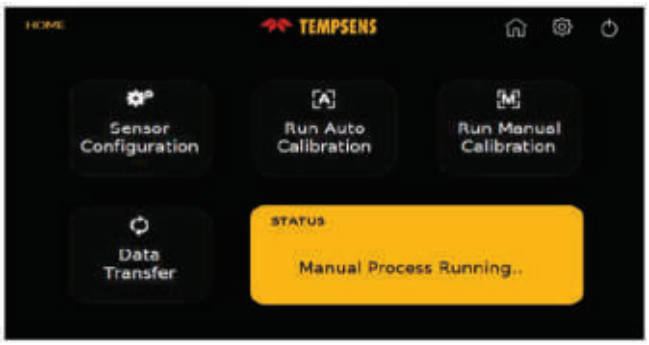
SENSOR CONNECTION (CALsys 30/110 Autocal)

The Calibration system provides calibration upto 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.

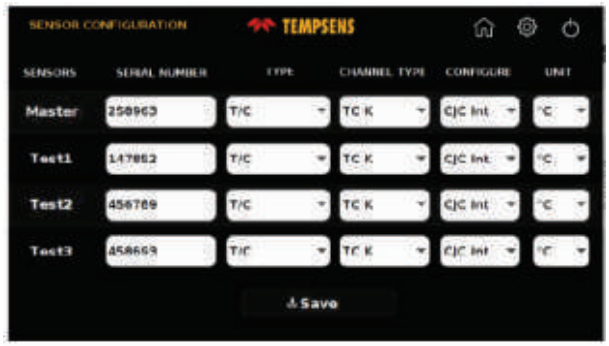


USER INTERFACE (CALsys 30/110 Autocal)

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

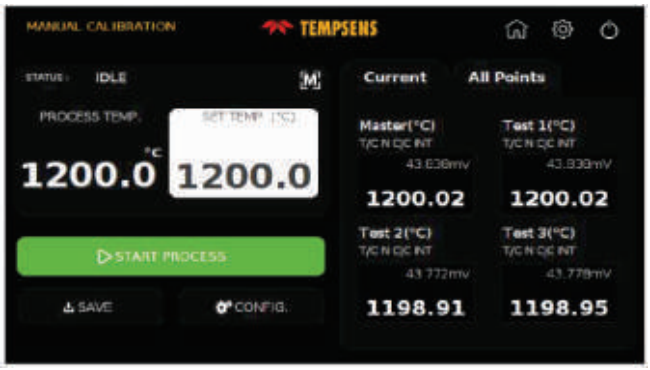


Sensor Configuration: In this screen user select the sensors Thermocouple (J, K, B, N, R, S, T type) / RTD (PT 100, PT 1000, PT 50 etc.) for calibration with their serial number and temperature unit (C/F/K).

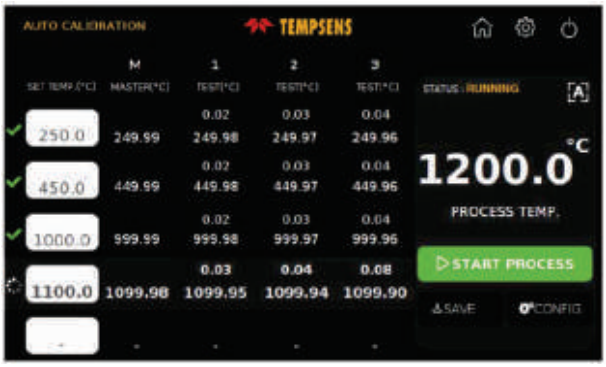


CALSYS -30/110 Autocal have two operating modes i.e. Manual and Auto mode

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



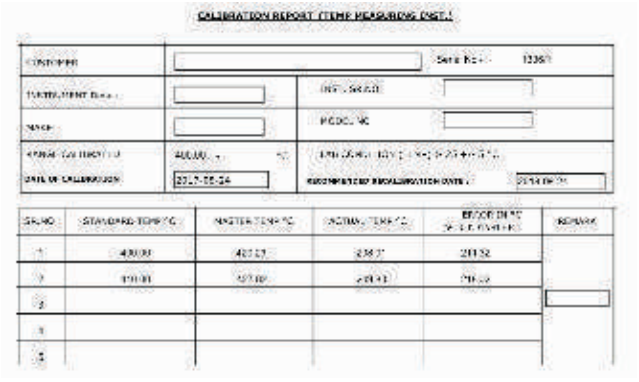
Auto Mode : In this screen user sets the temperature Points for calibration (Max 5 Points)



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

AUTOMATIC CALIBRATION REPORT GENERATION (Optional)

- 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.



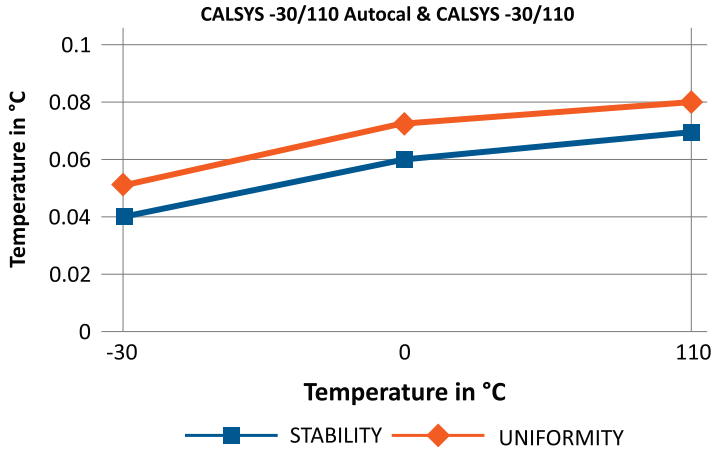
ACCESSORIES

Inserts for CALsys -30/110 Autocal & CALsys -30/110 models

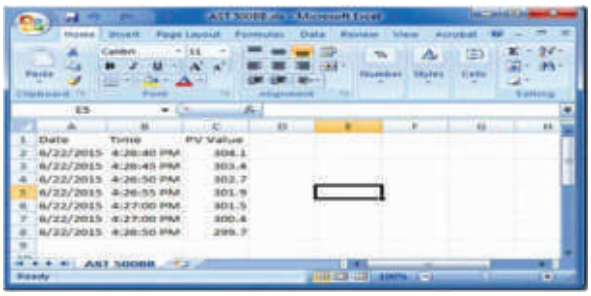
Inserts for CALsys -30/110 Autocal & CALsys -30/110 are made of aluminum .All specifications on hole size based on outer diameter of the sensor under test. We also offer customized hole size based on Customer requirements.

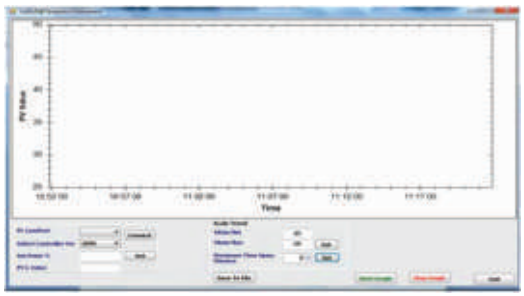
Inserts	Description
Ci1	Multihole 2x6.5 mm, 1x8.5 mm
Ci2	Multihole, Special customize

STABILITRY & 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 points (Optional)

• Operational Manual

CARRY CASE

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

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TEMPSENS

Calsys -15/110
Calsys -15/110 Autocal

Portable, Lightweight, highly accurate low temperature Calibrator for Industrial/ Laboratory field use

Dry Block Calibrators

Wide Temperature Range

Calsys -15/110 offer a wide temperature range from -15 °C to 110 °C

Lightweight, portable

The Calsys -15/110 block is ideal for Industrial/ Laboratory field use. It only weights about 12 kg, and it is small enough to carry around

Speed

The Calsys -15/110 extremely quick to reach various temperatures, i.e. it Heats down to -15 °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 -15/110 is an easily portable unit that also provides excellent calibration accuracy with stability ±0.07 °C at 110°C.

Accredited calibration

Each Calsys -15/110 is delivered with an accredited calibration certificate.

Computer Interface

The communication port(RS-232/USB) enables communication with selected Calsys -15/110 Temperature calibrator for automation calibration and documentation thus it made documentation easy.

CALSYS -15/110

CALsys -15/110 Autocal

Calsys -15/110 offers easy to use portable low temperature calibrator with temperature range from –15 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 block of special material, which has a diameter of 24mm 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 fine adjustment. Our newly designed Calsys -15/110 model offers better esthetic design and performance wise upgraded to next level. The CALsys -15/110 Autocal is an automatic temperature calibration system for the Thermocouple and RTD's. The system consists ofTemperature 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.

During the past several years, we have acquired extensive knowledge of industrial temperature calibration. This expertise is reflected in our products which are all designed for daily use in an industrial environment.

SPECIFICATIONS

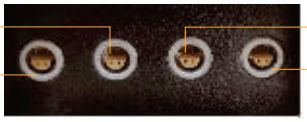
CALsys -15/110 Autocal & CALsys -15/110

Temperature range at 25°c	-15 °C to 110 °C
Stability	±0.03°C at -15°C
	±0.05°C at 0°C
	±0.07°C at 110°C
Radial uniformity	±0.05°C at -15°C
	±0.07°C at 0°C
	±0.09°C at 110°C
Hysteresis	0.02 °C
Immersion depth	120 mm
Insert OD dimensions	24 mm
Method of Control	Self tunned PID controller
Heating time	10 Min
Cooling time	25 Min (110 °C to -15°C)
Resolution	0.1 °C
Display	LCD, °C or °F user-selectable
Size (H x W x D)	380(H) x 170(W) x 188(D) mm
Weight	12Kg
Power requirements	230 VAC, 500 W(50 Hz)
Computer interface	RS - 232
Calibration	Accredited calibration certificate provided (Optional)
Environmental operating conditions	5 °C to 25 °C, 0 % to 90 % RH (non-condensing)
Specifications valid in environmental conditions	5°C ... 25°C
Input (CALsys -15/110 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 -15/110 Autocal)	**The calibrator will be provided with software for data recording (Manual Mode) and Test Certificate genration in Auto Mode**
Data logging (CALsys -15/110 Autocal)	**Data logging facility with logged data export to computer through LAN port (optional USB)**

SENSOR CONNECTION (CALsys -15/110 Autocal)

Connection for First TEST Sensor

Connection for MASTER Sensor



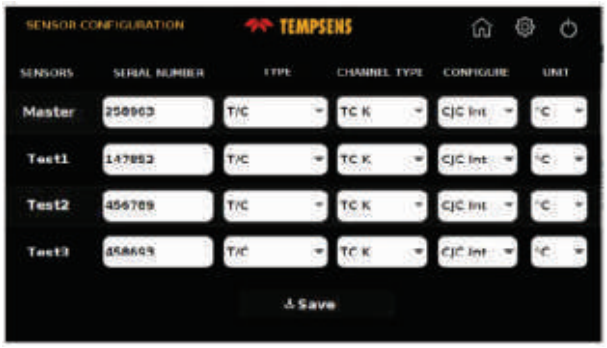
Connection for Second TEST Sensor

Connection for Third TEST Sensor

USER INTERFACE (CALsys -15/110 Autocal)

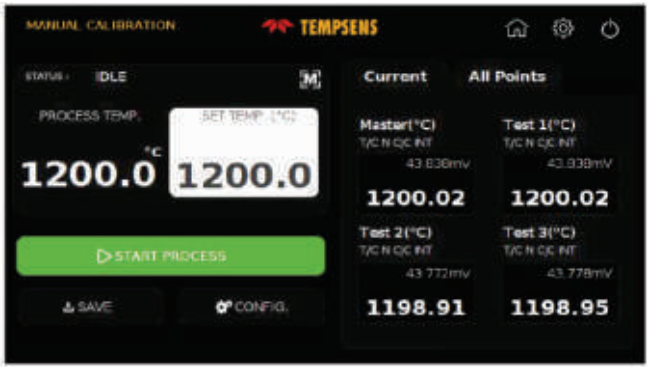
Home Screen: In this screen user can select sensor configuration (for selection of type of sensors), mode of operation (auto / manual) and data transfer (file transfer). This window also shows the ongoing process.

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

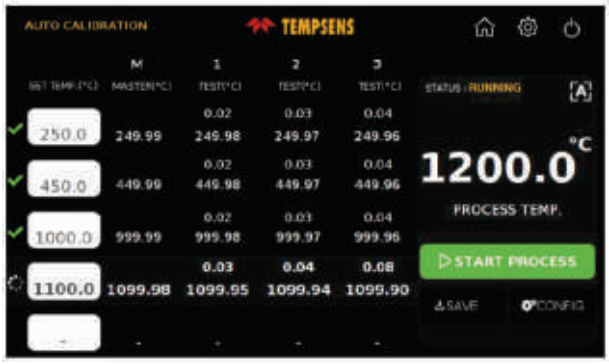


CALSYS -15/110 Autocal have two operating modes i.e. Manual and Auto mode

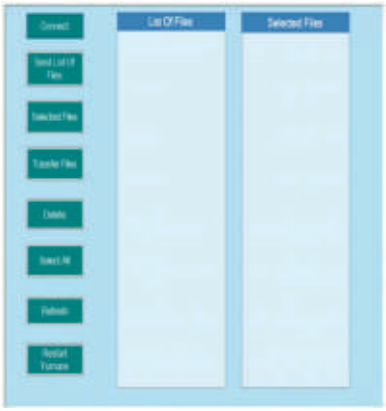
Manual Mode: Inthis screen user set the temp. Point for calibration and on clicking start process button the process of calibration starts



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

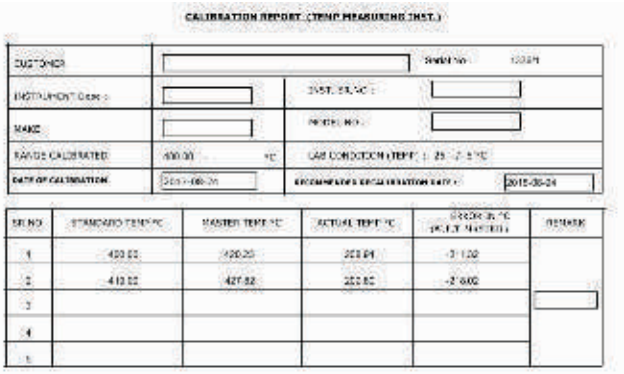


SOFTWARE : Tempsens make Easy to use Customized software enables end user to access temperature data bothfor Manual mode and Automode

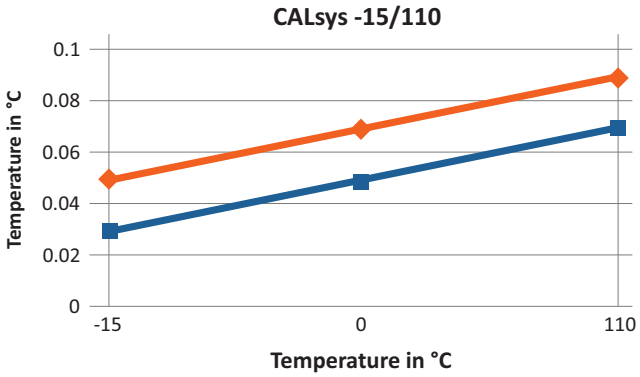


AUTOMATIC CALIBRATION REPORT GENERATION (Optional)

- 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 predefine format.



STABILITY & UNIFORMITY



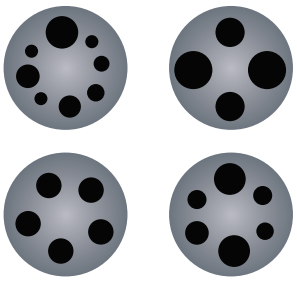
ACCESSORIES

Inserts for Calsys -15/110 models

Inserts for Calsys -15/110 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.

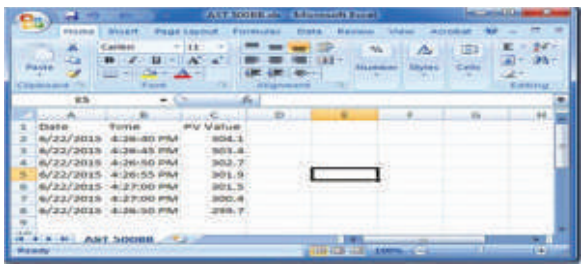
Inserts Model Description

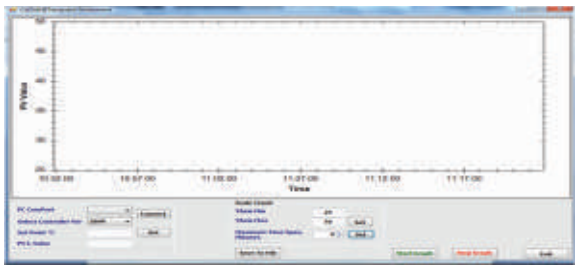
Inserts	Description
Ci1	Multihole, 4 x 6.5 mm
Ci2	Special (Customized)



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 RTD Part no. TPRT- A- 300.

- NABL accredited calibration certificate (Optional)
- Operational Manual

CARRY CASE

- Tempsens makes customized carry case is a rugged, safe perfectly designed to carry our new CALsys -15/110 calibrator and different accessories.

Tempsens Instruments (I) Pvt. Ltd. U# II
A-190, Road No.5, M.I.A., Udaipur-313003 (Rajasthan) INDIA
Ph.:+91-294-3500600, Fax.:+91-294-3500631
Email: calsys@tempsens.com, info@tempsens.com

TEMPSENS

CALsys 650
CALsys 650 Autocal

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

Dry Block Calibrators

Wide Temperature Range

CALsys 650 & CALsys 650 Autocal offer a wide temperature 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 10 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 and with stability ± 0.05°(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 Autocal

CALsys 650

CALsys 650 & CALsys 650 Autocal offers easy to use portable temperature calibrator with medium temperature range from 5O 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 15Omm long.The CALsys 650 Autocal is an automatic temperature calibration system for the Thermocouple and RTD's. The system consists of Temperatu re bath and PC softwa re, 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 timewhich 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

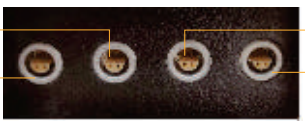
CALsys 650 Autocal & CALsys 650

Temperature range	5O °C to 650 °C
Stability	±0.01°C at 50°C
	±0.02°C at 350°C
	±0.05°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
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,1KW(50 Hz)
Calibration	Accredited calibration certificate provided (Optional)
Environmental operating conditions	0°C to 40°C, 0% to 90% RH (non-condensing)
Specifications valid in environmental conditions	l3°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	10 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 upto 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 MASTER Sensor

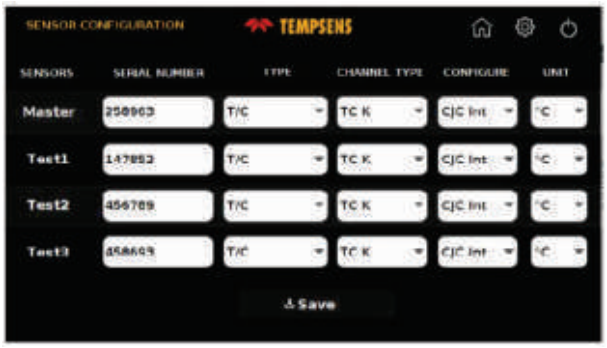


Connection for Second TEST Sensor
Connection for Third TEST Sensor

USER INTERFACE (CALsys 650 Autocal)

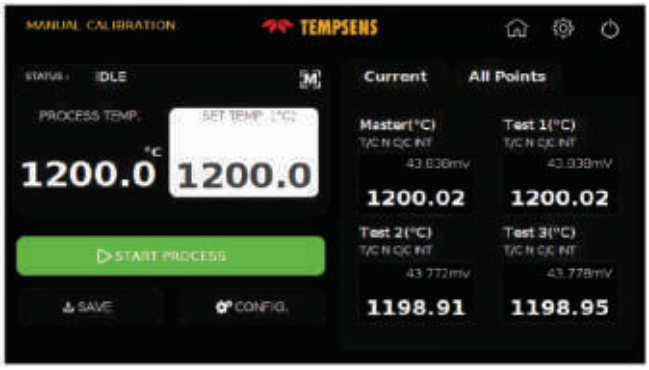
Home Screen: In this screen user can select sensor configuration (for selection of type of sensors), mode of operation (auto / manual) and data transfer (file transfer). This windowalso shows the ongoing process.

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).

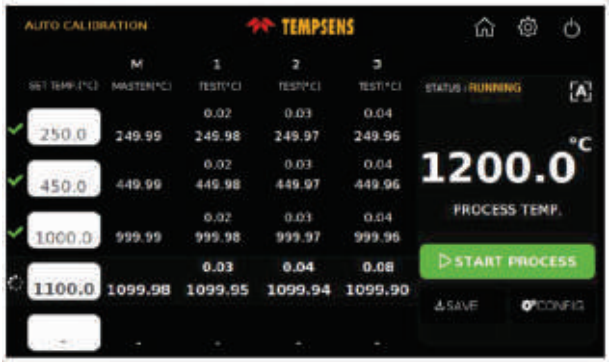


CALSYS 650 Autocal have two operatingmodes i.e. Manual and Auto mode

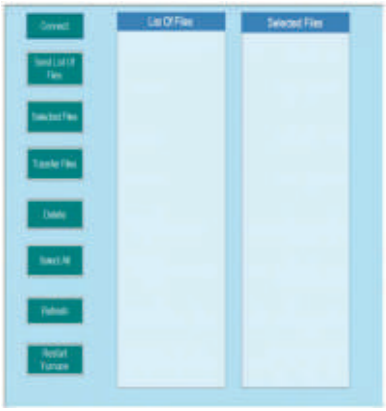
Manual Mode: Inthis screen user set the temp. Point for calibration and on clickingstart process buttonthe process ofcalibration starts



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

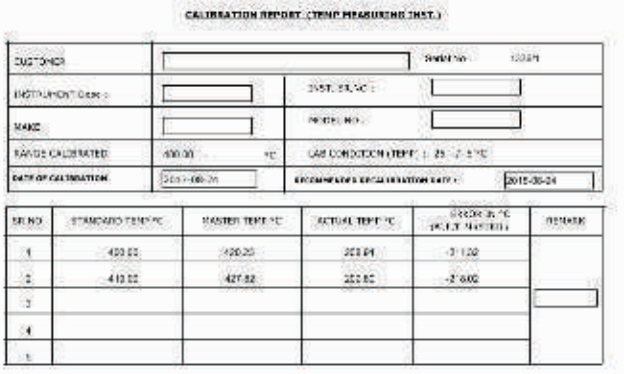


SOFTWARE : Tempsens make Easy to use Customized software enables end user to access temperature data bothfor Manual mode andAutomode

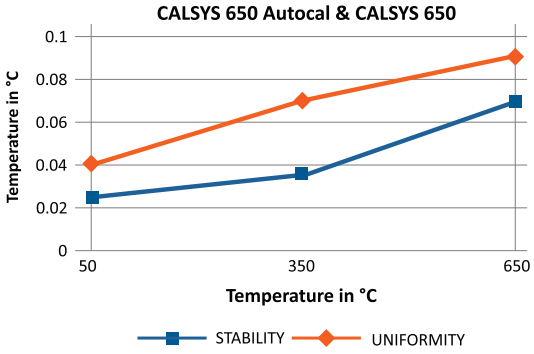


AUTOMATICCALIBRATION REPORT GENERATION (Optional)

- Tempsens can offer customized data saving option bothfor manualand Automode.
- After completion manual / Automode automatic calibration report can be generated at PC side basedon predefine format.



STABILITY & UNIFORMITY

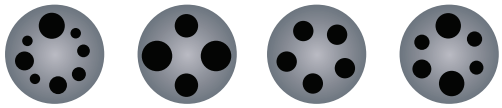


ACCESSORIES

Inserts for CALSYS 650 Autocal & CALSYS 650 models

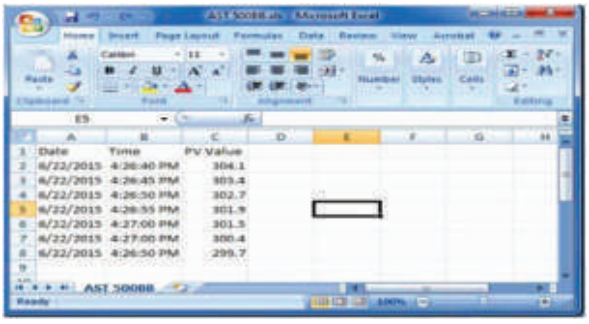
Inserts for CALsys 650 Autocal& CALsys 650 are made of Brass. All specifications on hole size based on outer diameter of the sensor under test. We also offer customized hole size based on Customer requirements.

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. TICK- 300.

- NABL accredited calibration certificate (Optional)
- Operational Manual

CARRY CASE

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

TEMPSENS

Tempsens Instruments (I) Pvt. Ltd. U# II
A-190, Road No.5, M.I.A., Udaipur-313003 (Rajasthan) INDIA
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Email: calsys@tempsens.com, info@tempsens.com

TEMPSENS

CALsys 1200
CALsys 1200 Autocal

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

Dry Block Calibrators

Wide Temperature Range
CALsys 1200 & CALsys 1200 Autocal offer a wide temperature range from 250 °C to 1200 °C

Lightweight, portable
The CALsys 1200 & CALsys 1200 Autocal block is ideal for Industrial/Laboratory field use. It only weight around 12kg and it is small enough to carry around.

Speed
The CALsys 1200 & CALsys 1200 Autocal extremely quick to reach various temperatures i.e. it cools down to 250°C in 150 minutes and heats up room temp to +1200 °C in 60 minutes.

Accuracy and performance
The CALsys 1200 & CALsys 1200 Autocal is an easily portable unit that also provides excellent calibration accuracy with stability ±0.3°C at 1200 °C.

Accredited calibration
Each CALsys 1200 & CALsys is delivered with an accredited calibration certificate.

Computer Interface
The communication port(RS-232/ USB) enables communication with selected CALsys 1200 calibrators for automation calibration and documentation thus it made documentation easy.

CALsys 1200 Autocal

CALsys 1200

CALsys 1200 & CALsys Autocal offers easy to use portable temperature calibrator with high temperature range from 250 to 1200°C. It is a highly stable standard furnace for calibrating thermocouples I RTD.This calibrator can be used on site for high temperature calibration and also find application in glass, electric power, automotive and material process industry. The comparison volume is a metallic block of special material, which has a diameter of 37mm and 21Smm long. The temperature of the calibrator is set and controlled by a self tuned PID controller with automatic super fine adjustment. Our newly designed CALsys 1200 model offers better esthetic design and performance wise upgraded to next level.

The CALsys-1200 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.

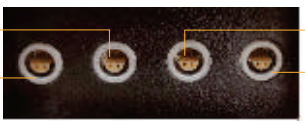
SPECIFICATIONS

CALsys -1200 Autocal & CALsys 1200

Temperature range	250 °C to 1200 °C
Stability	±0.1°C at 250°C
	±0.2°C at 700°C
	±0.3°C at 1200°C
Radial uniformity	±0.20°C at 250°C
	±0.24°C at 700°C
	±0.36°C at 1200°C
Immersion depth	160 mm
Insert OD dimensions	37 mm
Method of Control	Self tunned PID controller
Heating time	60 Min.
Cooling time	150 Min (1200 °C to 250 °C)
Resolution	0.1°C up to 999°C
Display	LCD,°C or °F user-selectable
Size (HxWxD)	405(H) x 205(W) x 285(D) mm
Weight	12 kg
Power requirements	230 VAC,1.5 KW (50 Hz)
Computer interface	RS - 232
Calibration	Accredited calibration certificate provided (Optional)
Environmental operating conditions	0°C to 40°C, 0% to 90% RH (non-condensing)
Specifications valid in environmental conditions	l3°C ... 33°C
Input {CALsys 1200 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 1200 Autocal)	**The calibrator will be provided with software for data recording (Manual Mode) and Test Certificate genration in Auto Mode**
Data logging (CALsys 1200 Autocal)	**Data logging facility with logged data export to computer through LAN port (optional USB)**

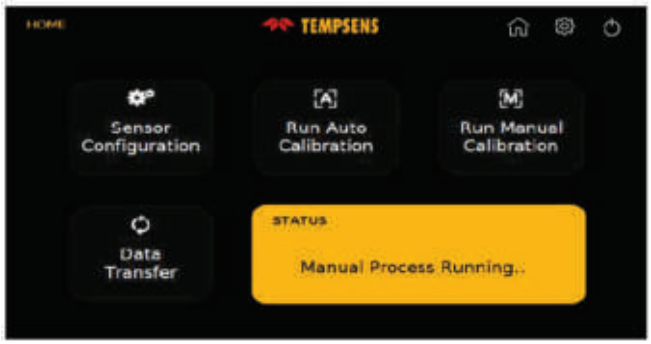
SENSOR CONNECTION (CALsys 1200 Autocal)

The Calibration system provides calibration upto 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 1200 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 windowalso shows the ongoing process.

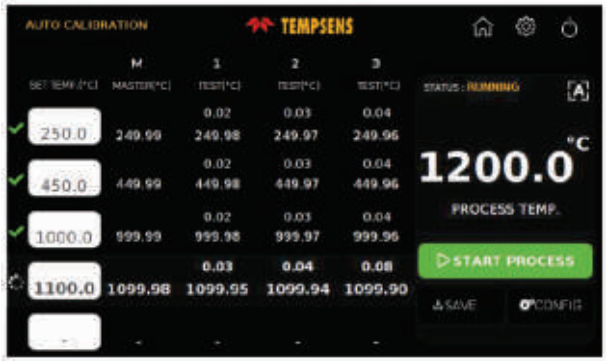


Sensor Configuration: In this screen user select the sensors Thermocouple (J, K, B, N, R, S, T type) / RTD(PT 100, PT 1000, PT50 etc.) for calibration with their serial number and temperature unit (C/F/K).

CALSYS 1200 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

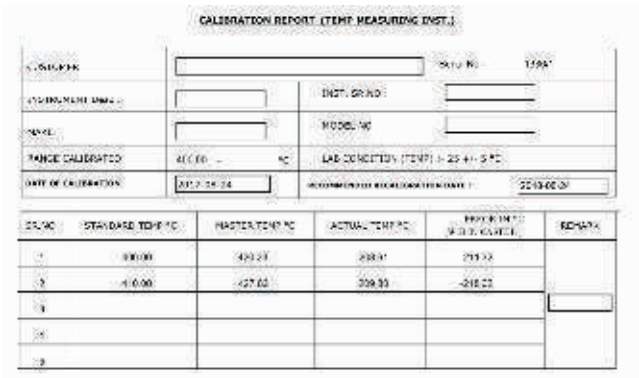
Auto Mode : In this screen user sets the temperature Points for calibration (Max 5 Points)



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

AUTOMATICCALIBRATION REPORT GENERATION (Optional)

- 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 predefine format.

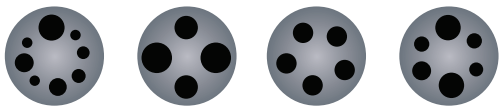


ACCESSORIES

Inserts for CALsys 1200 Autocal & CALsys 1200 models

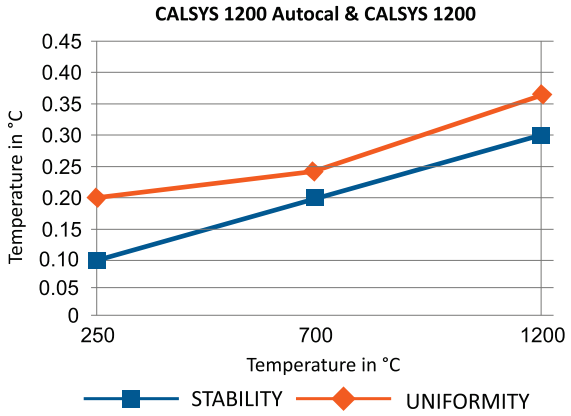
Inserts for Calsys 1200 Autocal & CALsys 1200 are made of special material. All specifications on hole size based on outer diameter of the sensor under test. We also offer customized hole size based on Customer requirements.

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

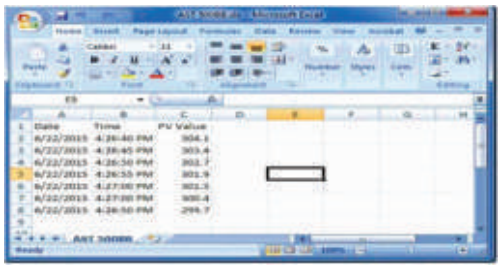


Customized Equalizing Block....Part No. EQ1

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 Thermocouple ('N' Type T/C)
- Part no. TTCN- 300.

- NABL accredited calibration certificate (Optional)
- Operational Manual

CARRY CASE

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

Tempsens Instruments (I) Pvt. Ltd. U# II
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Email: calsys@tempsens.com, info@tempsens.com

Dry Block Calibrators

- Wide Temperature Range from 50°C to 660°C
- High Accuracy
- Enhance Temperature Homogeneity
- Metrology Performance in Stability and Uniformity
- Fast Temperature Calibration
- 4 Thermometer Calibration at Same Time
- Optional External Temperature Control
- Quick Push Connectors
- Self Calibration Features
- Easy to Use
- Bright Color Touch Display
- Automation Features
- LAN/Erhenet Connection for Easy Communication with PC

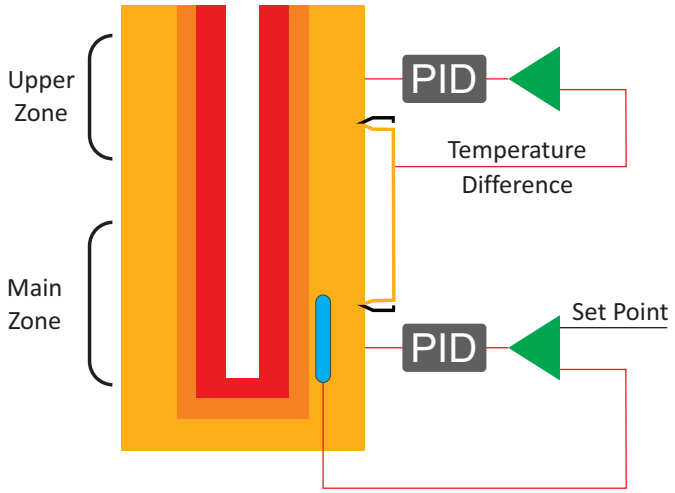
CALsys 650 M

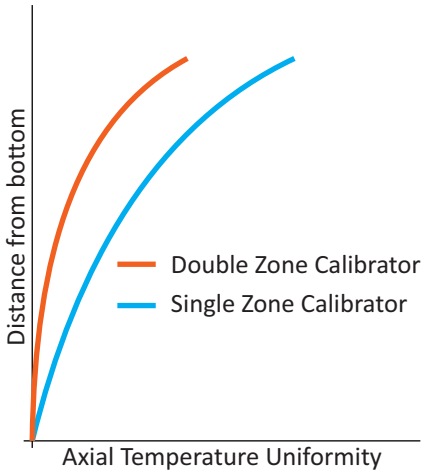
Metrology grade Highly Accurate Automatic TemperatureCalibrator for Industrial/Laboratory Field Use

The Tempsens make metrology grade calsys 650 M is a user friendly, highly accurate easy to use dry block calibrator. with the inhanced speed and portability its offers best in class accuracy stability, axial uniformity, radial uniformity, loading and hysteresis. all persmeters featurings the highest available performance and well adopted for characterization and performance validation for contact type temperature sensors like thermocouple RTD temperature guages for a wide temperature ranges. The comparison volume is a metallic block of special material, which has a diameter of 38mm and 180mm long. The CALsys 650 M Upgraded with automatic temperature calibration system for the Thermocouple and RTD's. The system consists of Temperature bath and PC softwa re, 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.

Enhance Temperature Uniformity





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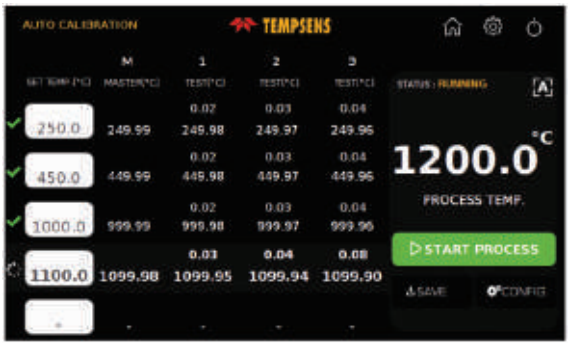

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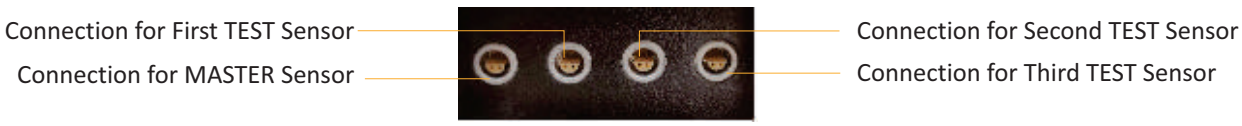

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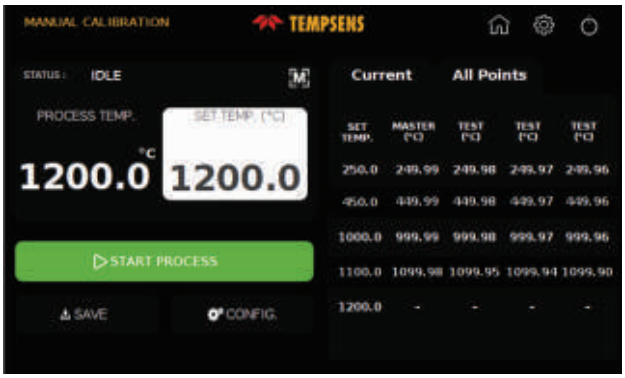

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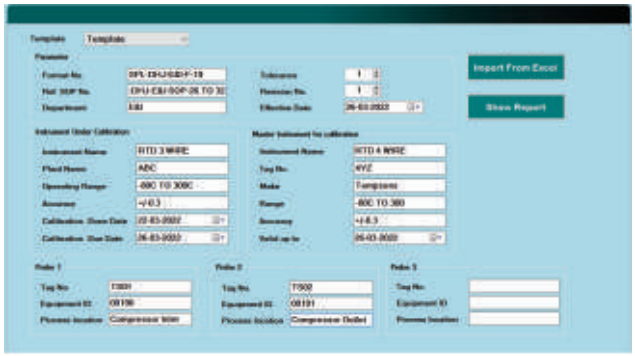

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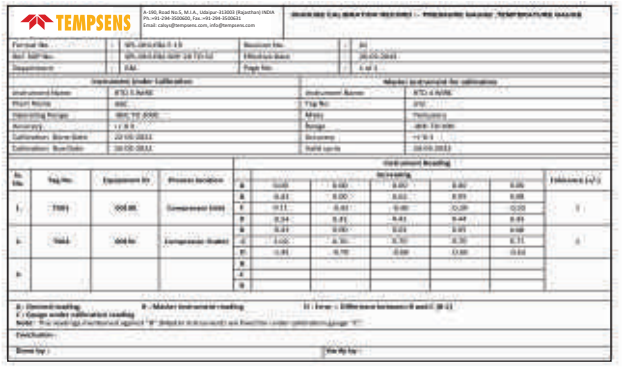


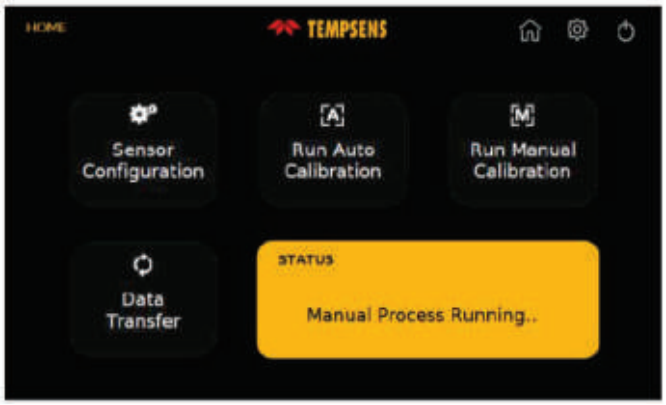
Specifications

CALsys 650 M

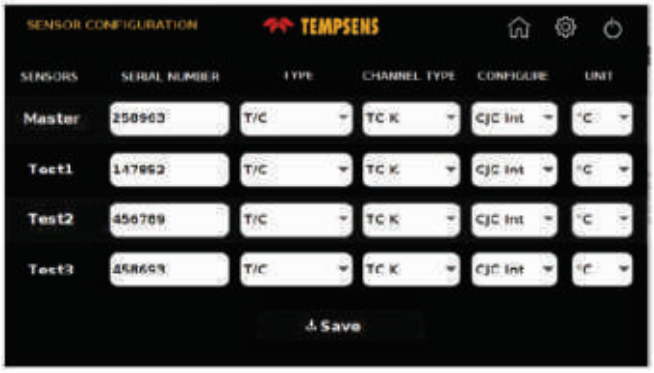
Temperature range	5O °C to 660 °C
Display Accuracy	±0.5°C
Stability	±0.01°C at 50°C ±0.02°C at 350°C ±0.05°C at 660°C
Axial uniformity (40mm)	±0.09°C at 100°C ±0.22°C at 400°C ±0.35°C at 660°C
Axial uniformity (60mm)	±0.12°C at 100°C ±0.30°C at 400°C ±0.60°C at 660°C
Radial uniformity	±0.03°C at 50°C ±0.05°C at 350°C ±0.09°C at 660°C
Loading effect (with a 6.35 mm reference probe and three 6.35 mm probes)	±0.05°C
Hysteresis	±0.07°C
Insert OD dimensions	38 mm
Immersion depth	160 mm
Cooling time	70 Min (660 °C to 100 °C)
Heating time	20 Min.
Stability time	15 Min
Set Point Resolution	0.1°C
Units	°C, °F and K
Display	5Inch LCD, Color Touch Display
Power requirements	230 VAC,1KW(5O 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	I5°C ... 30°C
PC Interface	Ethernet port
Size (H x W x D)	383(H)x230(W)x304(D) mm
Weight	14 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
RTD Input Channel Accuracy	±0.05°C ±0.005% RDG
TC Input Channel Accuracy	E.J.K.N.T: ±0.3°C, R,S,B: ±0.5°C
CJC Accuracy	±0.35°C (15°C to 30°C)
Software	The calibrator will be provided with software for data recording (Manual Mode) and Test Certificate generation in Auto Mode
Data logging	Data logging facility with logged data export to computer through LAN port (optional USB)

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 windowalso 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).



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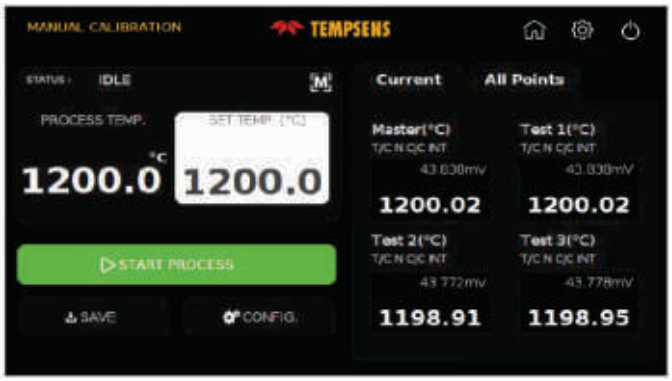

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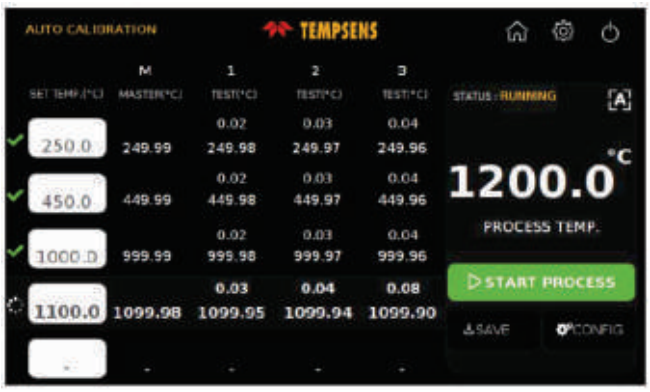

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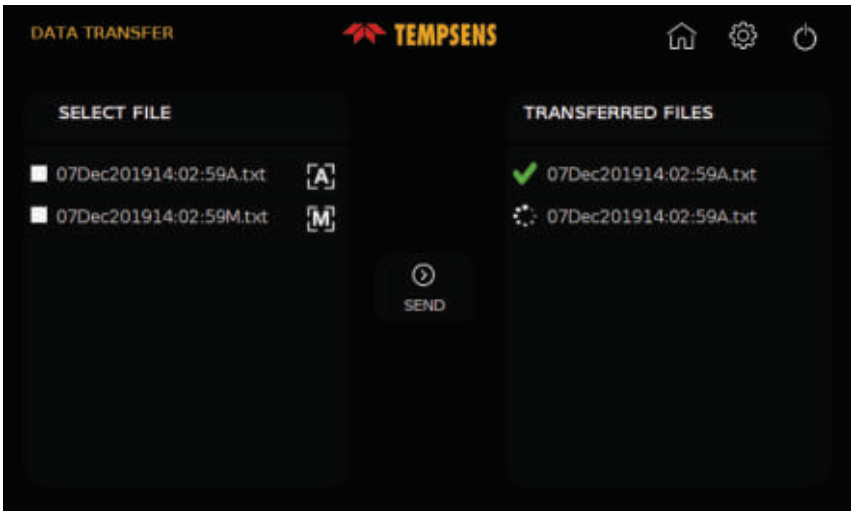
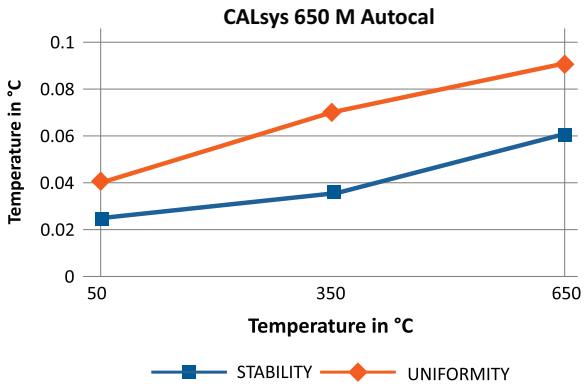
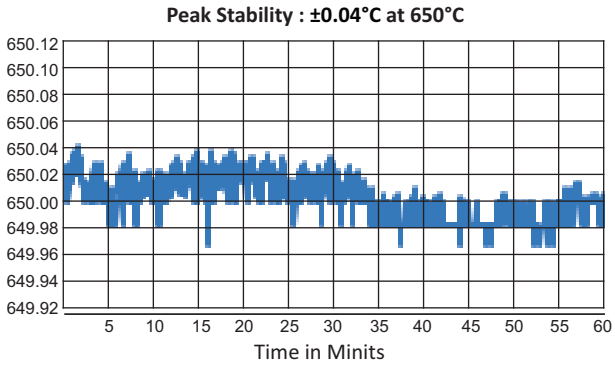
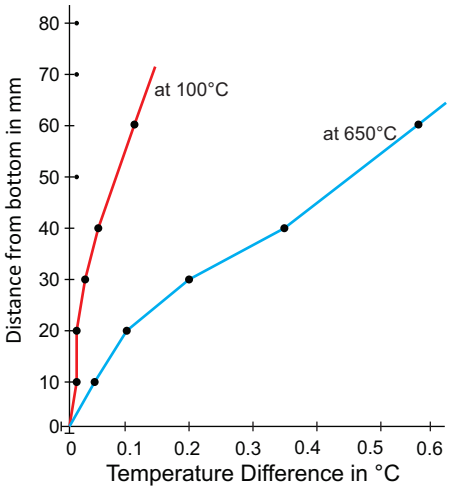


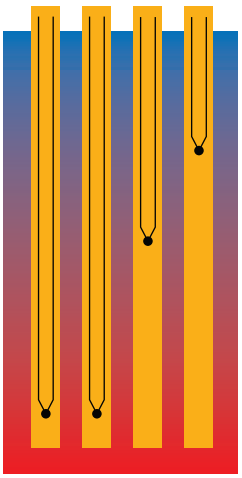
Stability & Radial Uniformity





Axial Uniformity





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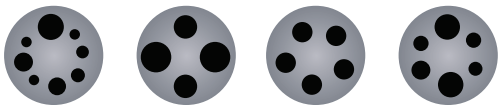

Customized Equalizing Block....Part No. EQ1

Master Sensor (Optional)

- Reference Standard High Accuracy Thermometer (RTD)
- Part no. TICP- 300.

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Universal Lemo Connector

- 4 No. Universal Lemo Connector for Connect RTD & Thermocouples

TEMPSENS

Tempsens Instruments (I) Pvt. Ltd. U# II
A-190, Road No.5, M.I.A., Udaipur-313003 (Rajasthan) INDIA
Ph.:+91-294-3500600, Fax.:+91-294-3500631
Email: calsys@tempsens.com, info@tempsens.com

Dry Block Calibrators

- Wide Temperature Range from -40°C to 150°C
- High Accuracy
- Enhance Temperature Homogeneity
- Metrology Performance in Stability and Uniformity
- Fast Temperature Calibration
- 4 Thermometer Calibration at Same Time
- Optional External Temperature Control
- Quick Push Connectors
- Self Calibration Features
- Easy to Use
- Bright Color Touch Display
- Automation Features
- LAN/Erhenet Connection for Easy Communication with PC

CALsys -40/150 M

Metrology grade Highly Accurate Automatic TemperatureCalibrator for Industrial/Laboratory Field Use

The Tempsens make metrology grade calsys -40/150 M is a user friendly, highly accurate easy to use dry block calibrator. with the inhanced speed and portability its offers best in class accuracy stability, axial uniformity, radial uniformity, loading and hysteresis. all persmeters featurings the highest available performance and well adopted for characterization and performance validation for contact type temperature sensors like thermocouple RTD temperature guages for a wide temperature ranges. The comparison volume is a metallic block of special material, which has a diameter of 25mm and 120mm long. The CALsys -40/150 M Upgraded with automatic temperature calibration system for the Thermocouple and RTD's. The system consists of Temperature bath and PC softwa re, 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.

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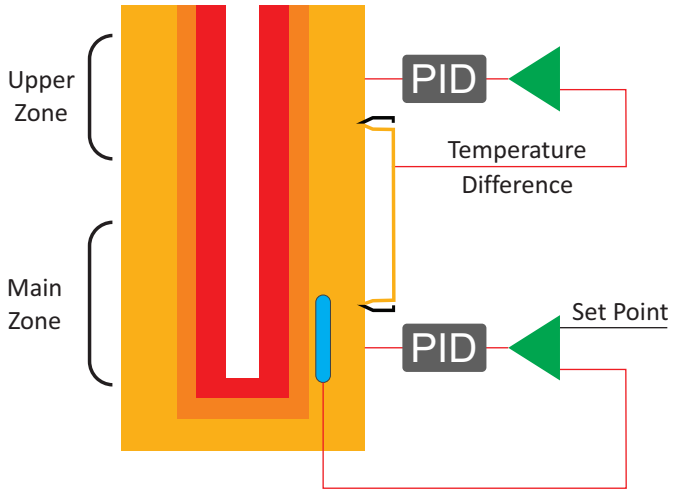

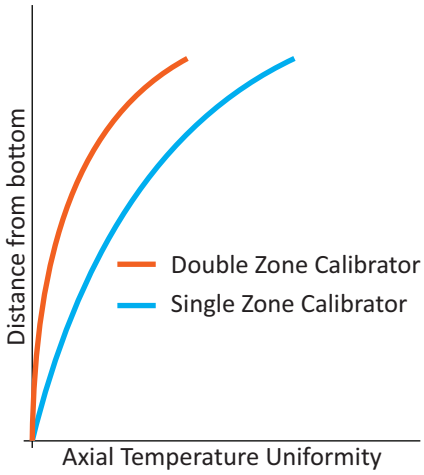

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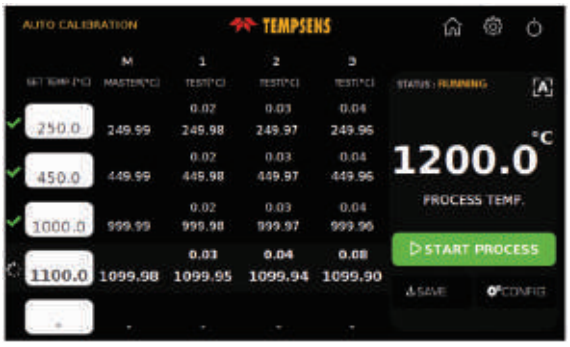

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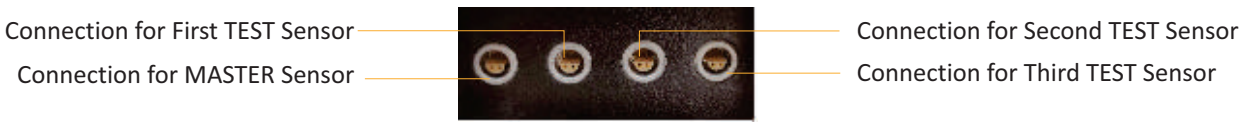

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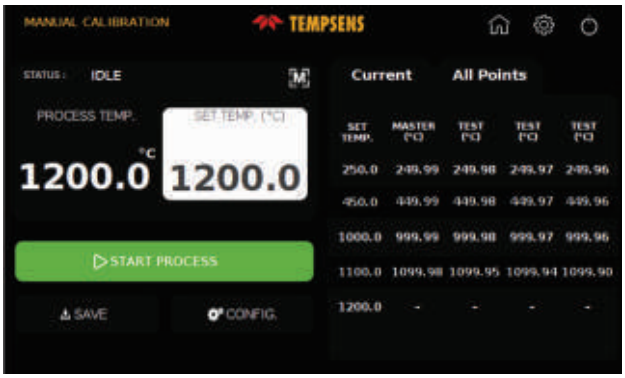

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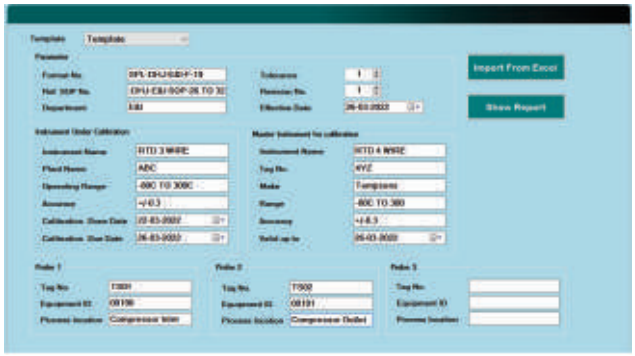

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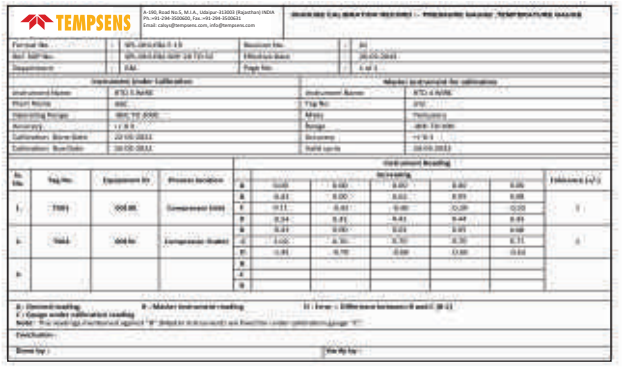

Specifications

CALsys -40/150 M

Temperature Range at 23°C	40°C to 150°C
Display Accuracy	±0.2 °C
Stability	0.01°C
Axial Uniformity (40 mm)	±0.05°C
Radial Uniformity	±0.01°C
Loading effect (with a 6.35mm reference probe and three 6.35 mm probes)	±0.02°C
Hysteresis	±0.03°C
insert OD dimensions	25 mm
Immersion depth	120 mm
Cooling time	15 Min (23°C to -30°C)
Heating time	15 Min (23°C to 140°C)
Stability time	15 Min
Set Point Resolution	0.1°C
Units	°C, °F and K
Display	5 Inch LCD, Color touch display
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)
Specification valid in environmental conditions	15°C -30°C
PC interface	Ethrenet port
Size (HxWxD)	325(H)x185(W)x265(D) mm
Weight	10kg
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
RTD input channel accuracy	±0.35°C (15°C to 30°C)
Software	The calibrator will be providded with software for data recording (Manual Mode) and Test Certificate generation in Auto Mode
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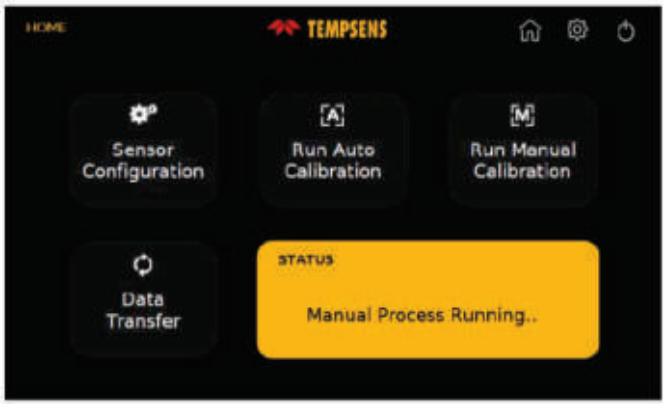

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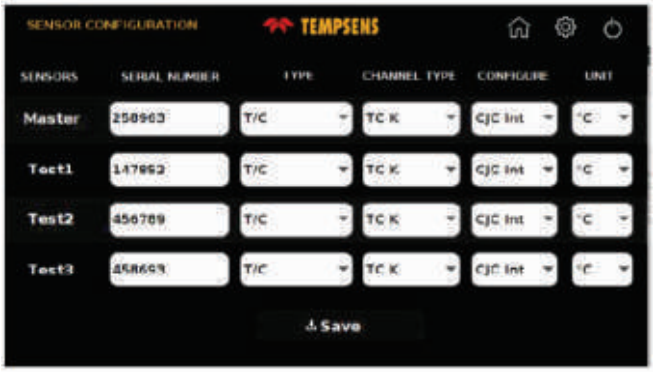

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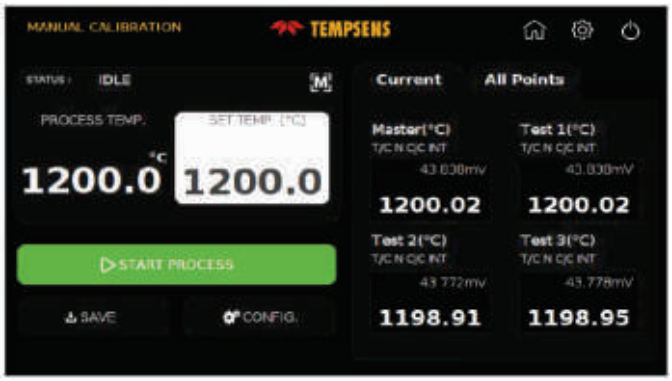

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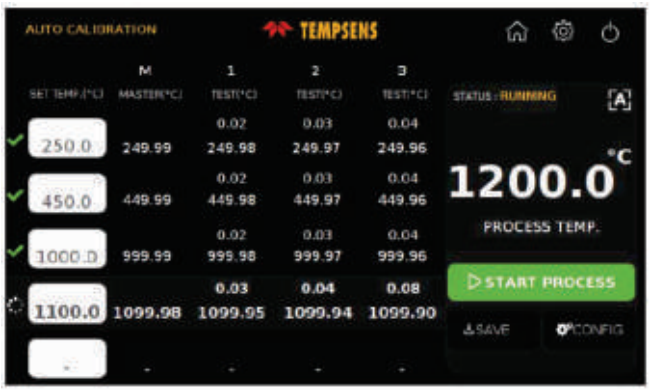

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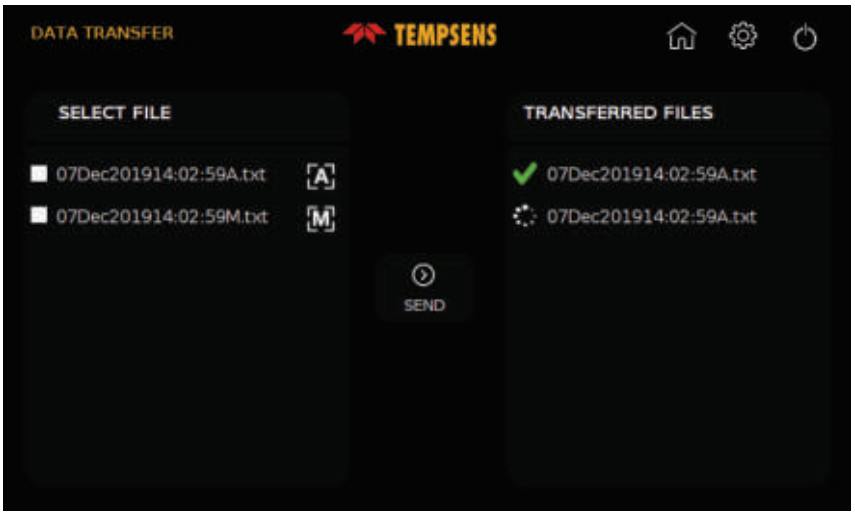
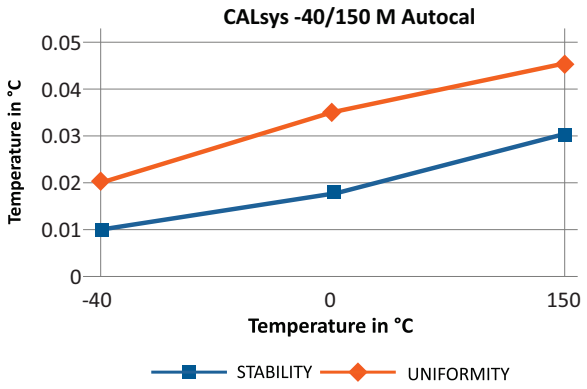
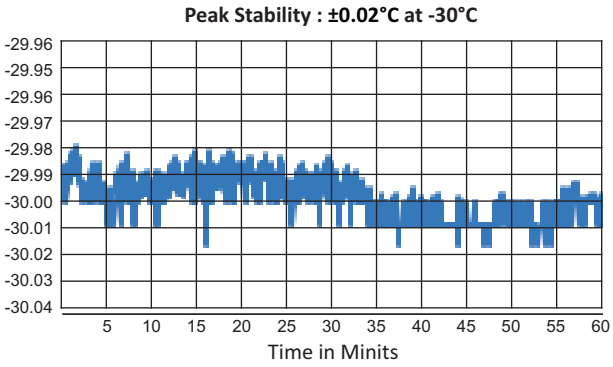


Stability & Radial Uniformity





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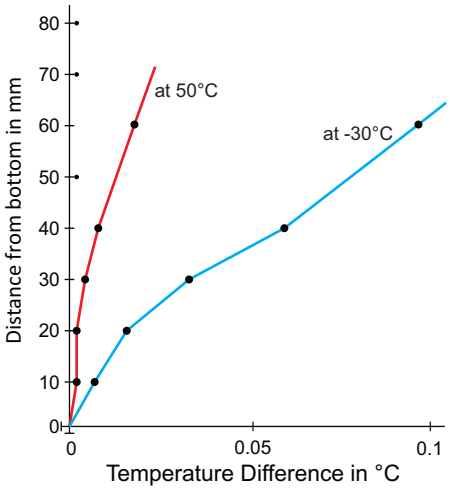

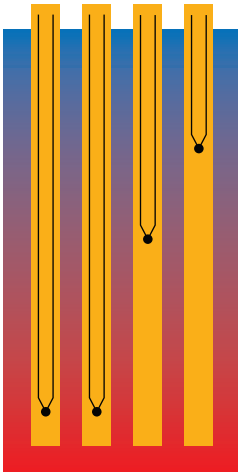

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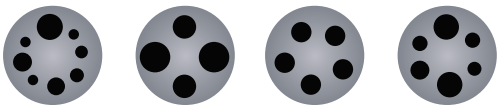

Customized Equalizing Block....Part No. EQ1

Master Sensor (Optional)

- Reference Standard High Accuracy Thermometer (RTD)
- Part no. TICP- 300.

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Universal Lemo Connector

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TEMPSENS

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