



# ***ECO MECHATRONICS AUTOMATION***

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## Application

In Calibration laboratories for the calibration of small, odd-shaped sensors and thermometers. For On-site Calibration.

Testing laboratory of RTDs and thermocouples. Process industry in-house calibration.

## Feature

- Dry block.
- Fast heating and cooling
- High accuracy and stability.
- Low weight and compact design.
- Simple operation.

## Technical Specification

- Range: -30 from ambient to 100°C @ Ambient 25°C)
- Display Resolution: 0.1°C.
- Control Accuracy:  $\pm 0.1^\circ\text{C}$
- Thermal Stability  $\pm 0.01^\circ\text{C}$  At  $-30^\circ\text{C}$ . ,  $\pm 0.03^\circ\text{C}$  At  $50^\circ\text{C}$ .  
 $\pm 0.06^\circ\text{C}$  At  $100^\circ\text{C}$ .
- Thermal Uniformity:  $\pm 0.05^\circ\text{C}$  At  $-30^\circ\text{C}$  ,  $\pm 0.08^\circ\text{C}$  At  $50^\circ\text{C}$ .  
 $\pm 0.15^\circ\text{C}$  At  $100^\circ\text{C}$ .
- Stabilization Time: 10 minutes
- Heating Time (ambient to 100°C): 15 minutes (approx.)
- Cooling Time (ambient to negative max.): 30minutes (approx.)
- Block Diameter: 22mm
- Block Immersion: 120mm
- Insertion Tube Depth: 110 mm
- Power Supply: 230V AC  $\pm 2.5/50$  Hz.
- Dimensions : 330x 200 x 275 mm
- Weight: 12.6 kg.

## Standard Accessories

- Standard Delivery Instrument: 1no.
- Power Cable: 1nos.
- Spare Fuse: 5A - 2 nos. Each User  
Manual: 1no.
- Customised insert
- optional Pointer puller

## Storage Condition

- Temperature:- 0 to 40 °C
- Humidity: 30% RH to 85% RH





## Application

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## Feature

- Dry block. Fast heating and cooling
- High accuracy and stability. Low
- weight and compact design.
- Simple operation.

## Technical Specification

- Range: (-40 from ambient to 30°C @ Ambient 25°C)
- Display Resolution: 0.1°C.
- Control Accuracy:  $\pm 0.1^\circ\text{C}$ .
- Thermal Stability:  $\pm 0.04^\circ\text{C}$  At -40°C,  $\pm 0.03^\circ\text{C}$  At 50°C  
 $\pm 0.07^\circ\text{C}$  At 100°C
- Thermal Uniformity :  $\pm 0.07^\circ\text{C}$  At -40°C,  $\pm 0.09^\circ\text{C}$  At 50°C  
 $\pm 0.18^\circ\text{C}$  At 100°C
- Heating Time (25 to 30°C) @25°C 10 minutes (approx.)
- Cooling Time (25 to -40°C) @25°C 40 minutes (approx.)
- Block Diameter: 22mm
- Block Immersion: 120mm
- Insertion Tube Depth: 110 mm
- Power Consumption : 500watt
- Power Supply: 230V AC  $\pm 2.5/50$  Hz.
- Dimensions : 330 x 200x 270 mm
- Weight: 13.5 kg.

## Standard Accessories

- Standard Delivery Instrument: 1no.
- Power Cable: 1nos.
- Spare Fuse:5A - 2 nos.
- Each User Manual: 1no.
- Customized insert optional
- Pointer puller

## Technical Specification

- Temperature:- 0 to 40 °C
- Humidity: 30% RH to 85% RH



# INFRARED BLACK BODY IR CALIBRATOR

**RANGE : 50°C TO 500°C**

Model Number:- ECMA/IR/1008



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- High accuracy and stability.
- Low weight and compact design
- . Simple operation.

## Technical Specification

- Business Type: Manufacturer, Exporter, Supplier, Retailer, Wholesaler
- Temperature Range: 50°C to 500°C @25°C
- Emissivity of: 0.95
- Emissive Area: 50mm
- Emissive Area Uniformity:  $\pm 2$  °C at 400 °C Emissivity: 0.95
- Thermal Stability:  $\pm 0.4$ °C At 100°C ,  $\pm 0.5$ °C At 300°C,  $\pm 0.6$ °C At 500°C
- Thermal Uniformity :  $\pm 0.9$ °C At 100°C ,  $\pm 1.0$ °C At 300°C ,  $\pm 1.5$ °C At 500°C
- Accuracy:  $\pm 0.8$ °C
- Display Resolution: 0.1°C
- Warm-up time: 25 min
- Cooling Time: 45 min (500 to 50°C)
- Ambient Condition: Humidity 35 to 85% (non-condensing)
- Temperature: 5 to 35 °C
- Power Supply: 230VAC (50-60Hz)
- Current: 4.7A
- Head Dimensions: WxHxD (mm<sup>3</sup>): 250mmx130mmx220mm
- Weight: 5.7 kg

## Standard Accessories

- Instrument: 1no
- Power Cable: 1no
- Carrying Bag: 1no
- Operating Manual: 1no

## Storage Condition

- Temperature: 0 °C -45 °C
- Fuse Rating: 10A
- Non-Condensing:





## Application

- In Calibration laboratories for the calibration of all, odd-shaped sensors, and thermometers,
- For On-site Calibration.
- Testing laboratory of RTDs and thermocouples.
- Process industry in-house calibration.

## Feature

Dry block. Fast heating and cooling  
High accuracy and stability. Low weight and compact design.  
Simple operation.

## Technical Specification

- Temperature Range: 250 to 1200 °C. Display
- Resolution: 1 °C
- Accuracy:  $\pm 2.5$  °C
- Stability:  $\pm 1.2$
- Thermal Non uniformity:  $\pm 2.2$  C @1200 C
- Stabilization Time/settling time: 20 minutes after the set point is achieved.
- Time to reach : 250 to 1200° C (50 Minutes).
- Power supply: 240 VAC @50-60 Hz.
- Current: 8A.
- Power Consumption: 1.8 kw maximum.
- Sound: 30 dB.
- Enclosure Metal (M.S)
- Weight: 15 kg with insert.
- Dimensions:- 350mmx350mmx200mm
- Standard Insert 2 X 6 mm, 2X8mm, 1X10mm.

## Storage Condition

- Temperature: 0°C to 40°C
- Relative humidity: 30% RH to 80% RH
- Fuse rating: 10A

## Standard Accessories

- Operating manual
- Customised insert





Temperature humidity Calibration Chamber Product range that facilitates users to perform Calibration of various temperature and humidity products like Thermo hygrometers, transmitters, and Temperature/ Humidity recorders.

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- For On-site Calibration.
- Testing laboratory of RTDs and thermocouples.
- Process industry in-house calibration.

## Feature

- Dry block.
- Fast heating and cooling
- High accuracy and stability.
- Low weight and compact design. Simple operation.

## Technical Specification

- Temperature Range: 10 °C to 50 °C @25°C.
- Humidity range: 10% RH to 95% RH @25°C.
- Display Resolution: 0.1 °C, 0.1% RH.
- Control accuracy: Better than 0.4°C, 0.9% RH.
- Thermal in-stability:  $\pm 0.4^\circ\text{C}$  (after stabilization time of 10 minutes).
- Humidity Instability...  $\pm 1\%$  RH (after stabilization time of 10 minutes).
- Thermal Non-uniformity:  $\pm 0.7^\circ\text{C}$  (after stabilization time of 10 minutes)
- Humidity Non-uniformity  $\pm 1\%$  RH (after stabilization time of 10 minutes).
- Stabilization Time/settling time: 10 minutes after the set point is achieved.
- Time to reach to 10 °C from ambient temperature: 35 minutes @25°C.
- Time to reach 50 °C from ambient temperature: 30 minutes @25°C.
- Time to reach 90% RH from 50 % RH: 10 minutes @25°C.
- Time to reach 10%RH from 50 % RH: 10 minutes @25°C.
- Power supply: 230 VAC @50-60 Hz,
- Current: 6A(Maximum).
- Power Consumption: single phase, 2000 watts maximum.
- Calibration chamber capacity:
- Weight: 32-40kg

## Standard Accessories

- Standard Delivery Instrument: 1no.
- Power Cable: 1nos.
- Spare Fuse: 10A - 2 nos.
- Each User Manual: 1no.
- Customized insert
- optional Pointer puller

## Storage Condition

- Temperature :- 0 to 40 °C
- Humidity :- 30%RH to 85%RH



Temperature humidity Calibration Chamber Product range that facilitates users to perform Calibration of various temperature and humidity products like Thermo hygrometers, transmitters, and Temperature/ Humidity recorders.

## Application

- In Calibration laboratories for the calibration of small, odd-shaped sensors and thermometers.
- For On-site Calibration.
- Testing laboratory of RTDs and thermocouples.
- Process industry in-house calibration.

## Feature

- Dry block.
- Fast heating and cooling
- High accuracy and stability.
- Low weight and compact design. Simple operation.

## Technical Specification

- Temperature Range: 10 °C to 50 °C @25°C.
- Humidity range: 10% RH to 95% RH @25°C.
- Display Resolution: 0.1 °C, 0.1% RH.
- Control accuracy: Better than 0.4°C, 1% RH.
- Thermal in-stability:  $\pm 0.5^{\circ}\text{C}$  (after stabilization time of 10 minutes).
- Humidity Instability...  $\pm 1\%$  RH (after stabilization time of 10 minutes).
- Thermal Non-uniformity:  $\pm 0.7^{\circ}\text{C}$  (after stabilization time of 10 minutes)
- Humidity Non-uniformity  $\pm 1\%$  RH (after stabilization time of 10 minutes).
- Stabilization Time/settling time: 10 minutes after the set point is achieved.
- Colling time : 25 to 10°C (35 minutes)
- Heating time : 10 to 50°C (30 minutes)
- Time to reach RH : 10 to 90% RH 15 minutes @25°C.)
- Time to reach RH : 90 to 10%RH (25 minutes @25°C.)
- Power supply: 230 VAC @50-60 Hz,
- Current: 6A(Maximum).
- Material : SS Body.
- Power Consumption: single phase, 2000 watts maximum.
- Weight: 42kg



## Standard Accessories

- Standard Delivery Instrument: 1no.
- Power Cable: 1nos.
- Each User Manual: 1no.

## Storage Condition

- Temperature :- 0 to 40 °C
- Humidity :- 30%RH to 85%RH





## Application

- In Calibration laboratories for the calibration of small, odd-shaped sensors and thermometers.
- For On-site Calibration.
- Testing laboratory of RTDs and thermocouples.
- Process industry in-house calibration.

## Feature

- High accuracy and stability.
- Low weight and compact design.
- Simple operation.

## Technical Specification

- Temperature Range: ambient to 250°C Display
- Resolution 0.1°C
- Control accuracy:  $\pm 0.1$
- Thermal in-stability:  $\pm 0.08$  °C @100 (after stabilization time of 20 minutes)
- $\pm 0.12$  °C @250 °C (after stabilization time of 20 minutes).
- Thermal Non-uniformity (Radial)  $\pm 0.08$  °C (after stabilization time of 20 minutes) @100 °C.
- Heating time 25 to 250 °C from ambient temperature: 50 minutes.
- Power supply: 230 VAC @50-60 Hz.
- Current: 5A.
- Oil capacity: 350ml 50 Cost (Silicon Oil)
- Sound: Less than 30 dB
- Diameter : 50mm
- Depth : 100mm
- Dimensions:- 270mmx240mmx170mm
- Weight: 10.4 Kg without oil.(MS BODY)

## Standard Accessories

- Power cord Silicon Oil 50 CST.
- litters (optional if ordered.)
- Carry bag (optional if ordered)



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## Feature

- Dry block.
- Fast heating and cooling
- High accuracy and stability.
- Low weight and compact design.
- Simple operation.

## Technical Specification

- Temperature Range: 50 to 600°C@.
- Accuracy:  $\pm 1.6^\circ\text{C}$
- Control accuracy:  $\pm 0.5^\circ\text{C}$ .
- Thermal stability:  $\pm 0.5^\circ\text{C}@ 300^\circ\text{C}$ ,  $\pm 0.8^\circ\text{C}@ 600^\circ\text{C}$ .
- Resolution:  $1^\circ\text{C}/0.1^\circ\text{C}$
- Heating time : 50 to 600 °C. (30 minutes)
- Colling Time : 600 °C to 50°C (90 minutes)
- Power supply : 230 VAC -@ 50- 60 HZ
- Current: 5.3A
- Maximum watt: - 550W
- Sound 32 DB
- Weight: -10.2 kg(M.S.BODY)
- Size: 270mm/175mm/270mm

## Storage Condition:

- Temperature: 0 °C-45 °C
- Fuse rating: 10 A.
- Non-Condensing



## Standard Accessories:

- Power cable: 1no
- Carrying bag: 1no
- Spare fuse: 5A - 2 nos
- each Pointer puller: 1nos
- Operating manual: 1nos
- Customized Insert: Optional

## Standard Insert Specifications

- No Of Bores: 04
- Insert Bore Diameter: 6.1/2 mm, 8.1/2mm
- Bore Diameter (well): 28mm
- Bore Depth: 115mm
- Sensor: K-type thermocouple





## ECONOMICAL VERSATILE MULTI-FUNCTIONAL APPLICATION

- Metrology
- Calibrate / Verify

## Main Feature

- Auto-Off Function Available
- Maximum resolution of 0.001
- Self Calibration Available
- 3 Modes Of Compensation Method Select By User
- Display Rel /Max/Min/Avg/P-P/SN Data

## SPECIFICATION

Model	AI-5600	AI-5500
Dimensions	115x70x30mm	115x70x30mm
Weight	0.25kg	0.25kg
Inputs		
Thermocouple	K,S,E,T,J,R,B,N	K,S,E,T,J,R,B,N
RTD	Pt100, Pt10000, Cu50, Cu10	Pt100
Linear (mV)	(-100.000~+200.000)mV	NIL
Linear (mA)	(-2.000~+24.000)mA	NIL
Resistant	0.000~2220.00)Ohms	NIL
Mathematics Readout	Rel/Max/Min/Avg/P-P/SN/Standard Deviation	Rel/Max/Min/Avg/P-P/SN/Standard Deviation



<b>Unit Readout</b>	Ohms, mA, mV, °C, F, K	°C, F, K
<b>Measurement Accuracy</b>	0.01%FS, Sampling Time : 80ms	0.01%FS, Sampling Time : 400ms
<b>Resolution</b>	0.000°C/0.0°F, 0.000A/ V/mA/mV	0.0°C/0.0°F
<b>Supply Power</b>	(AA SIZE) batteries, up to 1500 hours of continuous work time (typical)	

