ZOGLAB

MTC25

Mobile Temperature Calibrator

- Temperature calibrator with liquid bath and dry block combined
- Temperature control range: -22℃ ~ 155℃
- Dry homogeneity ±0.05℃
- Liquid homogeneity ±0.01℃
- Stability ±0.005℃
- Could connect external standard platinum resistor sensor and intelligent sensor

MTC25

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MOBILE TEMPERATURE CALIBRATOR

MTC25 is a precision mobile temperature calibrator with liquid bath and dry block combined; Temperature Measuring range -22℃~155℃. Featured technology with divided temperature control zone enable its excellent homogeneity and stability: homogeneity±0.05℃(dry), ±0.01℃(liquid), stability ±0.005℃.

MTC25 adopts humanized design, 7 inch TFT touch screen , friendly user interface; Multiple communication interfaces; could connect with external reference sensor, 145mm immersion depth; Maximum and minimum temperature alarm to prevent damage to sensors caused by excessive temperature; Support programmable control to realize fully automatic calibration. MTC25 is an ideal solution for laboratory and mobile calibration.

- Temperature calibrator with liquid bath and dry block combined
- Temperature control range: -22℃~155℃
- Homogeneity±0.05℃(dry), ±0.01℃(liquid)
- Stability ±0.005℃
- Could connect external standard platinum resistor sensor and intelligent sensor
- 7 inch TFT touch screen, easy to read
- Maximum and minimum temperature alarm to prevent damage to sensors caused by excessive temperature
- Support programmable control to realize fully automatic calibration
- Support communication interface RS232/RS485/USB/LAN/Wi-Fi, etc.

MTC25 • Host Machine

Power key
Power on/off

User interface
7 inch TFT touch screen,
optimized human-machine
interactive interface

Shortcut key area
OK key
Mode
Setting key
Direction key
Run
Cancel(ESC)

Reference sensor interface
DSP sensor interface

Platinum resistor measuring interface
Could measure 4 wire, 3 wire
and 2 wire platinum resistor

Current and voltage measuring interface
Could measure 4~20mA current
Could measure 0~10V voltage

Power switch
Switch test interface
Power interface
Ground
Thermocouple interface
Could connect thermocouple,
support model J, K,ect.

Max and min temperature alarm indicator light
Prevent the damage from excessive temperature

Multiple temperature control divisions
Improve the vertical thermal field homogeneity

Handle

Communication interface area

USB-A interface

RS232/RS485 interface

USB-B interface

LAN interface

Swift cooling and heating
Compact and efficient cooling
and heating technology

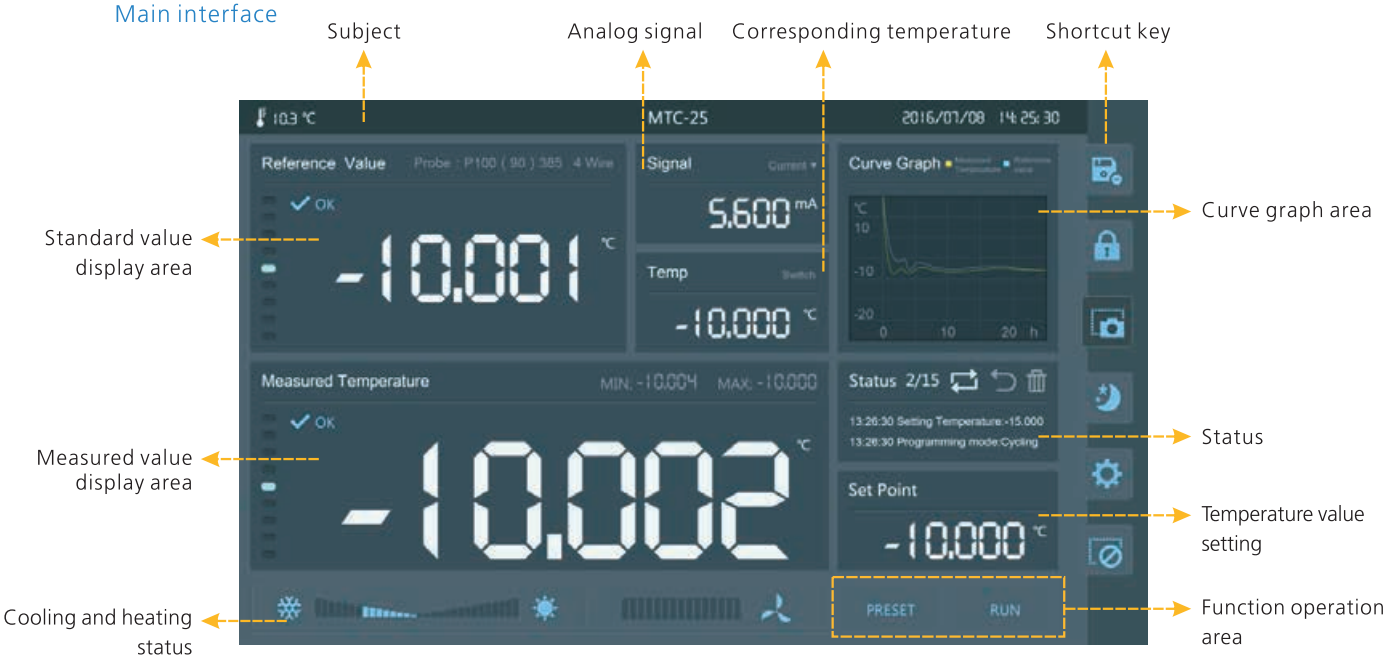
Air entrance

MTC25 • Human-machine Interactive Interface

Superior UI Design

MTC25 user interface is simple and easy to operate, and some basic functions could be done quickly by clicking the buttons, such as temperature setting, liquid mixing and programming, etc. User could check and compare the real-time measured value, set value, standard value and analog signal value, and could also check the value change via the curve graph. Shortcut keys are in the right of the interface, such as storage management, screen shot, screen lock, day and night switch mode, system setting, etc.

Main interface



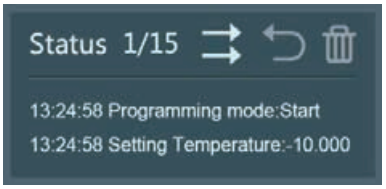
Curve interface

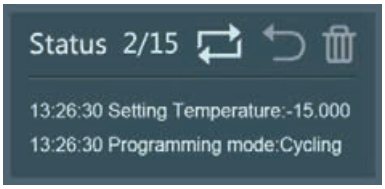
Programmable Temperature Calibration

MTC25 could preset temperature value, and automatically heat up and keep stable. User could set stable time, cycle time, etc. as requested.

Single

Cycling

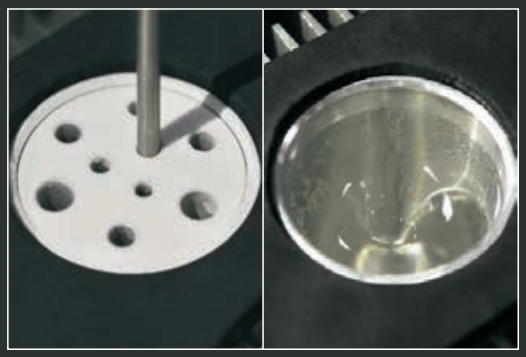




System Setting

Conduct various system parameters setting by clicking the system setting shortcut key in the main interface.

MTC25 • Functions and Features



Liquid Bath&Dry Block Combined

· T control range -22℃~155℃

· Support various models of isothermal block

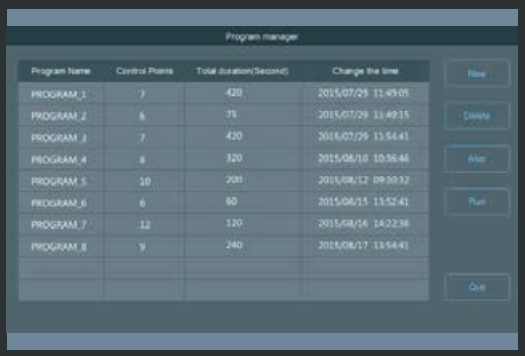
· Support mediums of alcohol, water, silicon oil, etc.

Homogeneity&Stability

· Homogeneity ±0.05℃(dry), ±0.01℃(liquid)

· Multiple divisions heating and dynamic compensation ensure the superior temperature homogeneity

· Stability ±0.005℃



Programmable Control

· Could set step pitch and stable time, easy to read

· Realize fully automatic calibration by setting calibration points, stable time, deviation judgment, etc.

Touch Screen

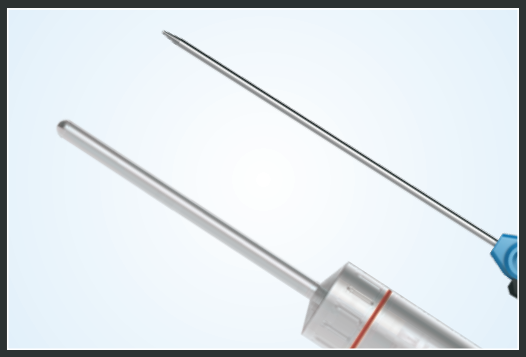
· 7 inch super big TFT LCD display

· Capacitive touchscreen operation

Respond Time

· Heating Time -20℃~23℃ 9 minutes
23℃~80℃ 23 minutes

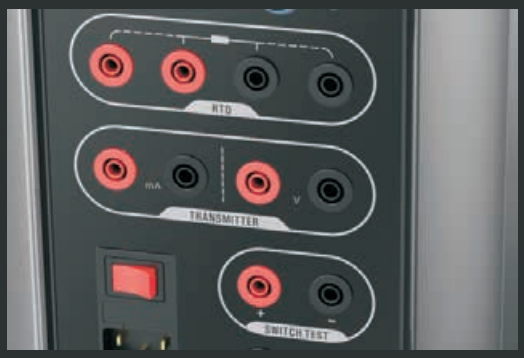
· Cooling Time 80℃~23℃ 24 minutes
23℃~0℃ 15 minutes
0℃~-15℃ 21 minutes



Optional External Sensors

· Equipped with built-in temperature sensor, while external sensors are also supported, in order to ensure the high accuracy of field and laboratory calibration

· Reference sensor is equipped with intelligent connector, "plug and play"



Signal Measurement

· Support current, voltage and switch signal measurement

· Support 4 wire platinum resistor and thermocouple measurement

Communication

· Support communication interfaces of RS232/RS485, USB, LAN and Wi-Fi

· Support remote control and group networking

· Support embedded web operation

MTC25 • Technical Specification

Technical Specification

T control range	-22℃~155℃
Accuracy(with external reference sensor)	±0.05℃
Accuracy(with internal reference sensor)	±0.18℃
Liquid homogeneity	±0.01℃
Dry homogeneity	±0.05℃
Stability	±0.005℃
Resolution	0.1℃ or 0.01℃ or 0.001℃
Working environment	0℃~35℃, 0 %~90 %RH(Non condensing), elevation< 2000m
Immersion depth	145mm
Well diameter	Φ60mm
Heating time	-20℃~23℃ 9 mins; 23℃~80℃ 23 mins
Cooling time	80℃~23℃ 24 mins; 23℃~0℃ 15 mins; 0℃~-15℃ 21 mins
Time to stability	<15 mins
Display	7 inch, 800×480 TFT LCD touch screen
Power supply	100~240VAC 0.5A , 50~60Hz
Communication interface	RS232/485, USB, Ethernet(LAN), Wi-Fi, Web Service
EMC	EN 50081-1 Class B EN 50082-1 Class B
ESD Protection	±25KV
Weight	11.5kg
Dimensions	190×357×354mm
Certificates	CE、FCC、VCCI、C-TICK

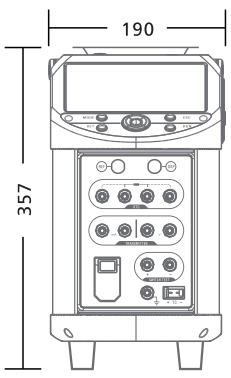
Reference Sensor

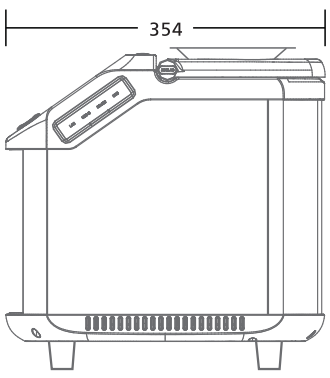
T Range	-100℃~200℃
T Accuracy	±0.05℃
Reference feature	IEC-751
Sensor dimensions	Φ6×300mm Stainless Steel

Analog Signal

Resistor measurement & accuracy	0Ω~400Ω , ±0.005Ω
Current measurement & accuracy	4~20mA , ±5μA
Voltage measurement & accuracy	0~10V , ±0.2mV
Thermocouple measurement	Support model J, K

Dimensions(mm)





MTC25 • Accessories

Standard Accessories

Serial communication cable

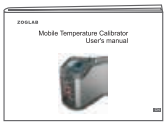
LAN communication cable

USB communication cable

Power cable

Calibration Certificate

User's manual



Warranty card

Qualification

Maintenance manual

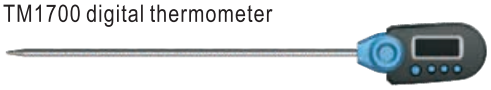
WEEE card

CD

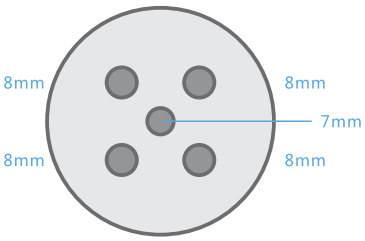
Optional Accessories

PT100-AA

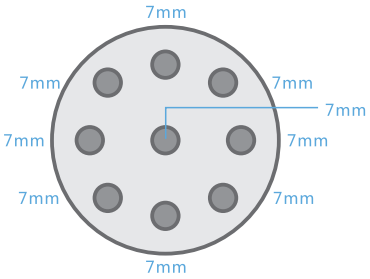
TM1700 digital thermometer



Isothermal block



M01



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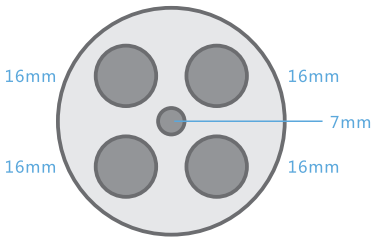

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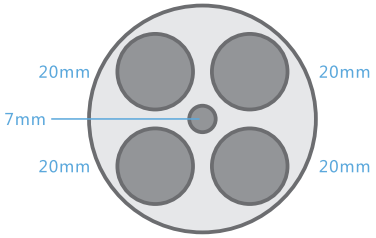

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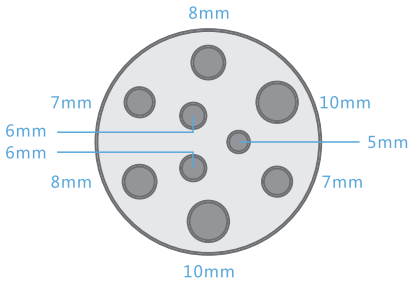

M05

Ordering Information

Ordering model	Features
MTC25-PRO	Support electrical signal measurement with PT100-AA external sensor
MTC25-STD	Support electrical signal measurement
MTC25-LTD	No electrical signal measurement

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