# TEMPERATURE AND HUMIDITY MEASUREMENT

## +INSIZE+



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**CODE 9132-T400** 

#### NON-CONTACT TEMPERATURE MEASUREMENT





- IR/visible/laser indicator
- Trigger button for photo taking
- 2-meter drop test, IP54 protection

#### STANDARD DELIVERY

| Main unit            | 1 pc |
|----------------------|------|
| Power supply adapter | 1 pc |
| TYPE-C cable         | 1 pc |
| 16G TF card          | 1 pc |
|                      | 1100 |



**INFRARED THERMAL IMAGING CAMERA (BASIC TYPE)** 

front view



#### **SPECIFICATION**

| OI LOII IOATION            |                              |   |
|----------------------------|------------------------------|---|
| IR image                   | IR resolution                | 120×90@17μm   |
|                            | detector type                | VOx/7.5~14μm  |
|                            | frame rate                   | 25Hz/9Hz  |
|                            | thermal sensitivity/NETD     | 60mk  |
|                            | focal length                 | 2.28mm/F1.13  |
|                            | field of view (FOV)          | 50°×38°   |
|                            | spatial resolution (IFOV)    | 7.6mrad   |
|                            | focus                        | focus-free  |
| Visible camera             | visible camera resolution    | 320×240, focus-free   |
| VISIDIE CAITIETA           | flashlight                   | yes   |
|                            | display                      | 2.4 inch IPS technology TFT display   |
|                            | display resolution           | 320×240   |
| Image display              | image model                  | IR/visible/picture-in-picture   |
|                            | color palettes               | 6: white hot, iron red, hot iron, arctic, rainbow 1, rainbow 2                |
|                            | temperature range            | -20~150°C, 100~400°C (auto switching)   |
|                            | accuracy                     | ±2°C or ±3%, whichever is greater (target temp ≥0°C, ambient temp is 15~30°C) |
| Temperature<br>measurement | measurement spot             | center spot   |
| measurement                | measurement area             | 3 (incl. max & min temp)  |
|                            | auto max & min spot tracking | yes   |
|                            | alarm                        | full screen max & min spot alarm  |
|                            | storage media                | TF card (16G)   |
| Image storage              | IR image format              | full radiometric (JPG) (120 x 90)   |
|                            | visible image                | yes, 320x240  |
|                            | USB                          | TYPE-C, TF card slot  |
| Connections &              | tripod interface             | yes   |
| communications             | mobile APP                   | yes   |
|                            | PC IR analysis software      | yes   |
|                            | battery type                 | rechargeable li ion battery   |
| Power system               | battery operation time       | >5 hours  |
|                            | charging time                | internal charge, ≤2.5 hours   |
| Environmental parameters   | operation temperature        | -10~50°C  |
|                            | storage temperature          | -40~70°C  |
|                            | protection                   | IP54, 2-meter drop test   |
|                            | certification                | CE/ROHS/FCC   |
|                            | dimension (LxWxH)            | 194×61.5×76mm   |
|                            | weight                       | 350g  |
|                            |                              |   |

#### **INFRARED THERMAL IMAGING CAMERA** CODE 0231-IC650

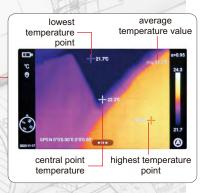












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- Suitable for electric power, metallurgy, petrochemical, scientific research and teaching, manufacturing, rail transit, building testing, electronic equipment overhaul, mechanical equipment maintenance, etc.
   Four image presentation: IR, VIS, MIF, PIP

- Real-time image can be photographed and video recorded Software is included: image browsing, image parameter editing, infrared image analysis, batch report generation, video editing, etc.
- WIFI real-time sharing, one-click connection to mobile device

#### STANDARD DELIVERY

| Main unit           | 1 pc  |
|---------------------|-------|
| 64G SD card         | 1 pc  |
| Lithium-ion battery | 2 pcs |
| Desktop charger     | 1 pc  |
| Power adapter       | 1 pc  |
| Software            | 1 pc  |

#### **SPECIFICATION**

|                             | detector type                   | unrefrigerated vanadium oxide/7.5µm~14µm   |
|-----------------------------|---------------------------------|--|
|                             | infrared resolution             | 256×192@12μm   |
|                             | super resolution                | upgrade to 512×384   |
|                             | thermal sensitivity/NETD        | <45mK  |
|                             | infrared frame rate             | 30Hz/9Hz   |
|                             | focal length                    | 10.5mm   |
| Imaging                     | field of view                   | 25°×19°  |
| and optics                  | spatial resolution (IFOV)       | 1.7mrad  |
|                             | minimum object distance         | 0.1m   |
|                             | distance to spot size (D:S)     | 588:1  |
|                             | focusing mode                   | manual/automatic/continuous autofocus  |
|                             | digital zoom                    | 1.1X~8X  |
|                             | shot recognition                | auto   |
|                             | laser ranging                   | indication/ranging: 0.1m~40m   |
|                             | measurement range               | support auto-switching: -40°C~150°C, 0°C~650°C   |
|                             | measurement accuracy            | ±2°C or ±2%, whichever is greater  |
|                             | analyzed target                 | spot×5, line×5, area×5   |
| Measurement<br>and analysis | tracking/alarm                  | full screen maximum, minimum and average temperature tracking; the maxium, minimum and average temperature tracking of analyzed target; full screen temperature threshold alarm (image, voice and flash) |
|                             | temperature measuring parameter | emissivity, reflected temperature, target distance, humidity, atmospheric transmittance, optical transmittance, dew point  |
|                             | other                           | isothermals, smart stroke, intelligently calculate the area  |

To be continued

#### Continued from previous page

| A <sup>c</sup>     |                       |   |  |  |
|--------------------|-----------------------|---|--|--|
|                    | display screen        | 4.3", 800×480 pixel touch screen LCD  |  |  |
|                    | digital camera        | 5MP   |  |  |
| Image display      | image mode            | IR, VIS, MIF, PIP   |  |  |
| illage display     | image adjustment      | level span mode: automatic, semi-automatic, manual  |  |  |
|                    | color palettes        | white hot, iron red, arctic, rainbow 2, hot iron, rainbow 1, fulgurite, medical, tint, black hot, blue hot, sepia, green hot, ice and fire, amber, customized |  |  |
| Function           | recording function    | photo and video (infrared & visible light)  |  |  |
|                    | cloud service         | available   |  |  |
|                    | other                 | customized physical button, intelligent diagnosis, OTA update   |  |  |
| Storage and        | storage               | local storage (64GB) and external 64GB SD   |  |  |
|                    | image storage         | JPG with temperature information  |  |  |
|                    | video storage         | MP4 (without temperature information), can be used to record audio synchronously; irgd (with temperature information), up to 30Hz for temperature analysis    |  |  |
| transmission       | external interface    | TYPE-C, SD card slot  |  |  |
|                    | WIFI                  | can be connected to the mobile terminal for image and real-time video transmission  |  |  |
|                    | bluetooth             | bluetooth 5.0, support image transmission (only for Android)  |  |  |
|                    | battery type          | lithium-ion rechargeable battery, working time≥5 hours  |  |  |
| Power system       | charging mode         | TYPE-C charging; PC/portable charger; capable of charging while using   |  |  |
|                    | charging time         | 90% of full charge in 2.5 hours   |  |  |
|                    | operation temperature | -20°C~50°C  |  |  |
| Environmental      | storage temperature   | -40°C~60°C  |  |  |
| parameter          | protection            | IP54, 2-meter drop test   |  |  |
|                    | certification         | CE, FCC, ROHS   |  |  |
|                    | hardware              | illuminator, microphone, speaker, electronic compass, GPS   |  |  |
| Physical parameter | dimension             | 292×125×125mm   |  |  |
|                    | weight                | 1.15kg  |  |  |

### **INFRARED THERMOMETER (BASIC TYPE)** CODE 0222-C520

- Unit: °C, °FAutomatic data holdMAX/MIN/AVG/DIF mode
- High and low alarm
- Adjustable emissivity Low battery display
- Over range indicator
- Automatic power off

#### **SPECIFICATION**

| Temperature range           | -50°C~500°C/-58°F~932°F  |  |
|-----------------------------|--|--|
| Temperature accuracy        | ±3.0°C (at -50°C~0°C), ±2.0°C or ±2% (at 0°C~500°C)<br>±5.4°F (at -58°F~32°F), ±4.0°F or ±2% (at 32°F~932°F) |  |
| Temperature resolution      | 0.1°C/0.2°F  |  |
| Distance to spot size (D:S) | 12:1   |  |
| Emissivity                  | 0.10~1.00 (adjustable)   |  |
| Repeatability               | ±0.5°C or ±0.5%; ±1.0°F or ±0.5%   |  |
| Response time               | ≤500ms (95% of reading)  |  |
| Spectral response           | 8μm~14μm   |  |
| Diode laser                 | output<1mW, wavelength 630nm~670nm, class 2 laser product  |  |
| Power supply                | 2×AAA batteries, working time≥6h   |  |
| Automatic power off         | about in 15 seconds  |  |
| Operation environment       | temperature: 0°C~50°C/32°F~122°F;<br>humidity: <90%RH (non-condensing)                                       |  |
| Storage environment         | temperature: -20°C~60°C/-4°F~140°F;<br>humidity: <90%RH (non-condensing)                                     |  |
| Dimension                   | 148×85×46mm  |  |
| Weight                      | 160g   |  |



| Main unit     | 1 pc  |
|---------------|-------|
| Battery (AAA) | 2 pcs |

Automatic data hold

Over range indicator
 Max/Min display

#### SPECIFICATION

| Temperature range           | -20°C~380°C/-4°F~716°F  |  |
|-----------------------------|---|--|
| Temperature accuracy        | ±2.5°C (at -20°C~20°C), ±2% or ±2.0°C (at 20°C~380°C)<br>±4.5°F (at -4°F~68°F), ±2% or ±3.6°F (at 68°F~716°F) |  |
| Temperature resolution      | 0.1°C/0.1°F   |  |
| Distance to spot size (D:S) | 12:1  |  |
| Emissivity                  | 0.95 (fixed)  |  |
| Repeatability               | ±1°C/1.8°F  |  |
| Response time               | 150ms   |  |
| Spectral response           | 8~14µm  |  |
| Diode laser                 | output<1mW, wavelength 630~670nm class 2 laser product  |  |
| Operation temperature       | 0°C~50°C/32°F~122°F   |  |
| Operation humidity          | 10%RH~90%RH   |  |
| Storage temperature         | -10°C~60°C/14°F~140°F   |  |
| Storage humidity            | <80%RH  |  |
| Power supply                | 1×9V battery  |  |
| Dimension                   | 137×73×38mm   |  |
| Weight                      | 135g  |  |



#### STANDARD DELIVERY

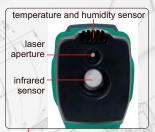
| Main unit | 1 pc |
|-----------|------|
| Battery   | 1 pc |

#### INFRARED THERMOMETER (ADVANCED TYPE) **CODE 0215-A900**

- Ambient temperature, dew point temperature and humidity detection
- Unit: °C, °F
  Circular laser sighting
  Display backlight
- Automatic power off
- Automatic data hold
   Adjustable emissivity
- High and low alarm

#### **SPECIFICATION**

|                          | temperature range           | -30°C~800°C/-22°F~1472°F  |
|--------------------------|-----------------------------|---|
| Infrared                 | temperature resolution      | 0.1°C<br>0.1°F (-22°F~1000°F), other range 1°F  |
|                          | temperature accuracy        | ±3.0°C (at -30°C~20°C)<br>±(1% of reading +1)°C (at 20°C~450°C)<br>±(2% of reading )°C (at 450°C~800°C) |
| sensor                   | distance to spot size (D:S) | 20:1  |
|                          | emissivity                  | adjustable 0.10~1.00  |
|                          | response time               | <150ms  |
|                          | spectral response           | 8~14µm  |
|                          | diode laser                 | output<1mW, wavelength 630~670nm class 2 laser product  |
|                          | ambient temperature range   | 0°C~50°C/32°F~122°F   |
|                          | dew point temperature range | 0°C~50°C/32°F~122°F   |
|                          | temperature resolution      | 0.1°C/0.1°F   |
| Temperature and humidity | temperature accuracy        | ±1.0°C/±1.8°F   |
| sensor                   | humidity range              | 0%RH~100%RH   |
|                          | humidity resolution         | 0.1%RH  |
|                          | humidity accuracy           | ±5%RH (20%RH~80%RH),<br>other range ±7%RH   |
| Automatic power off      |                             | about in 10 seconds   |
| Power supply             |                             | 1×9V battery  |
| Dimension                |                             | 170×45×85mm   |
| Weight                   |                             | 196g  |





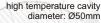
| Main unit | 1 pc |
|-----------|------|
| Battery   | 1 pc |

#### **DUAL-CAVITY BLACKBODY RADIATION SOURCE CODE PIC-D155**



low temperature cavity diameter: Ø65mm

power switch of low temperature cavity



power switch of high temperature cavity

0.1 level temperature control meter

#### **SPECIFICATION**

| Temperature range | low range: -15°C~100°C; high range: 50°C~500°C   |  |
|-------------------|--|--|
| Resolution        | 0.01°C (at -15°C~100°C), 0.1°C (at 100°C~500°C)  |  |
| Stability         | ≤(0.1°C or 0.1% t , whichever is greater)/10min* |  |
| Uniformity        | ≤(0.15°C or 0.15% t , whichever is greater)*     |  |
| Emissivity        | >0.995   |  |
| Cavity size       | low range: Ø65mm; high range: Ø50mm              |  |
| Cavity depth      | low range: 110mm; high range: 160mm              |  |
| Cool down time    | 30 minutes from ambient to -15°C                 |  |
| Heat up time      | 60 minutes from ambient to 500°C                 |  |
| Power supply      | 220V/50Hz  |  |
| Power             | 850W   |  |
| Dimension         | 380×295×320mm                                    |  |
| Weight            | 17.1kg   |  |
| * / 9.00          |  |  |

t| is the absolute temperature value of blackbody radiation source

- Large target sizes of 50mm and 65mm for calibrating of infrared thermometers and infrared thermal imagers
- Contain two independent blackbody cavities
- The emissivity of blackbody radiation is better than 0.995
- 0.1 level temperature control meter with high accuracy
- Multi-point temperature correction function

#### STANDARD DELIVERY

Main unit 1 pc

#### Can measure the surface and inside temperature of objects

- Low battery display
- Display backlight
- High and low alarm
- Automatic data hold (infrared system)
- Automatic power off (infrared system)
- Unit: °C/°F

#### SPECIFICATION

|                           | temperature range           | -15°C~280°C/5°F~536°F  |  |
|---------------------------|-----------------------------|--|--|
| Infrared<br>system        | temperature resolution      | 0.1°C/0.1°F  |  |
|                           | temperature accuracy        | ±3.0°C (at -15°C~20°C), other range ±(1%+1.0)°C ±5.4°F (at 5°F~68°F), other range ±(1%+1.8)°F  |  |
|                           | distance to spot size (D:S) | 4:1  |  |
|                           | emissivity                  | 0.95 (fixed)   |  |
|                           | spectral response           | 8~14µm   |  |
|                           | temperature range           | -40°C~200°C/-40°F~392°F  |  |
| Penetration               | temperature resolution      | 0.1°C/0.1°F  |  |
| system                    | temperature accuracy        | ±2.0°C (at -40°C~0°C), other range ±(1%+1.0)°C ±3.6°F (at -40°F~32°F), other range ±(1%+1.8)°F |  |
| Repeatability             |                             | <1.0°C   |  |
| Measurement response time |                             | <500ms   |  |
| Power supply              |                             | 2×1.5V AAA batteries   |  |
| Dimension                 |                             | 140×39×24mm  |  |
| Weight                    |                             | 140g   |  |
|                           |                             |  |  |

## INFRARED AND PENETRATION THERMOMETER **CODE 0321-IT42** ( 10 O O O O O



**IP65** 

| Main unit     | 1 pc  |
|---------------|-------|
| Battery (AAA) | 2 pcs |

## DATA LOGGER FOR TEMPERATURE AND HUMIDITY (BUILT-IN SENSOR) CODE 0311-3070







- Signal acquisition, display, storage, analysis function
- Low power consumption
- Built-in high-precision temperature and humidity sensor
- Software is included



stand (included)



| Temperature range      | -30°C~70°C/-22°F~158°F   |  |
|------------------------|--|--|
| Temperature accuracy   | ±0.3°C (at 23°C±2°C), other range ±0.5°C<br>±0.6°F (at 73.4°F±3.6°F), other range ±0.9°F |  |
| Temperature resolution | 0.1°C/0.2°F  |  |
| Humidity range         | 0%RH~100%RH  |  |
| Humidity accuracy      | ±3%RH (at 10%RH~85%RH), other range ±5%RH  |  |
| Humidity resolution    | 0.1%RH   |  |
| Memory capacity        | 10918  |  |
| Alarm                  | function: alarm when over high or low limit method: display+buzz+backlight               |  |
| Sampling interval      | 2s, 5s, 10s, 30s, 60s, 255s (adjustable)   |  |
| Logging interval       | 2 seconds~24 hours (adjustable)  |  |
| Start with delay       | 1~120 seconds (adjustable)   |  |
| Start mode             | start immediately/delay start/timing start   |  |
| End mode               | Full/FIFO/preset/timing end  |  |
| Timing start/end       | random start/end with format YYMMDD HHMMSS   |  |
| Interface              | USB  |  |
| Time battery           | CR2032   |  |
| Power supply           | 3.6V lithium battery (ER14505) or 5~24V DC   |  |
| Dimension              | 123×117×33mm   |  |
| Weight                 | 260g   |  |



#### STANDARD DELIVERY

| Main unit              | 1 pc   |
|------------------------|--|
| Software and USB cable | 1 pc   |
| Power adapter          | 1 pc   |
| Time battery           | 1 pc   |
| Lithium battery        | 1 pc   |
| 1-04                   | AND SHOW IN THE RESERVE OF THE PERSON OF THE |

#### software (included), record and download data to PC software via USB cable TimeScope: 2022-10-26 09:44:1 0311-3070 TH2204112086UA 0311-3070 Data Collection Trends (0311-3070, TH2204112086UA) B Recording Parameter 1.Sampling Interv 2 2.RecordInterval 00:00:03 3.AfterDownload Delete 4.View objects AllData Imme Full 2.EndMode 23°C 1.StoreDelay 120 5.Timing start dat. 0000-00-00 00:00:00 6.Timing stop dat. 0000-00-00 00:00:00 6 Timing stop dat 0000-000 000000 D System Parameter 1 BeepAlarm 2 LCD displey mc Open 3 BacklightNode DelayClose 4 BacklightNelsy 5 FowerNode Power Save 6 TemperatureUr Celaiur E Advanced Parameter RouteCollection ClickButtonToSet BerenAlarm 40% 20% --ов 46 08-50 08-52 08-54 08-56 08-58 10-00 10-02 10-04 10-06 10-08 10-10 10-12 10-14 10-16 10-18 10-20 10-22 10-24 10-28 10-28 10-30 10-32 10-34 Chart Data List Real Time Monitor Average ☑ Channel0 ☑ Channel1 2022-10-26 09:48:45 2022-10-26 09:48:45 ☑ SaveToFile 🔲 Record Standby 🧰 Battery Normal 🌇 Memory: 65508 🙀 Remain: 65508 📸 Units: 0 (9) Humidity: 45.4% Temperature: 25.3° C Comm: Online

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#### DIGITAL THERMOHYGROMETER (PROFESSIONAL TYPE) **CODE 9362-TH27**

- Measure humidity, ambient temperature and dew-point temperature
- Max/Min/Average mode
- Alarm function
- IP50 protection grade

#### **SPECIFICATION**

| Sensor model           | NTC thermistor/humidity capacitance/digital sensor             |
|------------------------|--|
| Temperature range      | -20°C~70°C/-4°F~158°F  |
| Temperature accuracy   | ±0.5°C/±0.9°F  |
| Temperature resolution | 0.1°C/0.2°F (minimum adjustable unit is 0.2°F in setting mode) |
| Humidity range         | 0~100%RH   |
| Humidity accuracy      | ±5%RH  |
| Humidity resolution    | 0.1%RH   |
| Sampling interval      | 5s   |
| Battery                | 1.5V AAA   |
| Dimension              | 95×107×18mm  |
| Weight                 | 105g   |
|                        | 77.7   |



STANDARD DELIVERY

| Main unit           | 1 pc |
|---------------------|------|
| Battery (AAA)       | 1 pc |
| 11 L/C/G #S/C/C/G## |      |

### THERMOHYGROMETER (EXTERNAL SENSOR) **CODE 0313-TH48**



- External sensor, 3m cableTime/temperature/humidity display
- Temperature and humidity upper and lower limit alarm function
- Unit: °C/°F
- Low battery alarm



| SPECIFICATION                 |   |  |
|-------------------------------|---|--|
| Temperature range             | -40°C~80°C/-40°F~176°F  |  |
| Temperature accuracy          | ±0.5°C (at -20°C~60°C), ±1.0°C (at 60°C~80°C),<br>±2°C (at -40°C~-20°C),<br>±2°F(at -20°F~176°F), ±3°F (at -40°F~-20°F) |  |
| Temperature resolution        | 0.1°C (at -20°C~80°C ), other range 1°C 0.1°F (at -20°F~100°F), other range 1°F   |  |
| Humidity range                | 0%RH~99.9%RH  |  |
| Humidity accuracy             | ±5%RH (at 10°C~60°C), other range ±7%<br>±5%RH (at 50°F~140°F), other range ±7%   |  |
| Humidity resolution           | 0.1%RH  |  |
| Sensitivity attenuation value | temperature: <0.1°C/year (<0.2°F/year)<br>humidity: <1%RH/year  |  |
| Sampling interval             | 5 seconds   |  |
| Power supply                  | built-in rechargeable lithium battery (USB 5V charging) working time at least one month                                 |  |
| Dimension                     | 88×88×21mm  |  |
| Weight                        | 174g  |  |

| Main unit          | 1 pc |
|--------------------|------|
| USB charging cable | 1 pc |

### K-TYPE THERMOCOUPLE THERMOMETER (ECONOMIC TYPE) CODE 0320-K230

- Contact K-type thermocoupleUnit: °C/°F
- Data hold function
- Low battery display
- Display backlight

#### **SPECIFICATION**

| Temperature range      | -50°C~200°C/-58°F~392°F  |  |
|------------------------|--|--|
| Temperature accuracy   | ±2.0°C/±3.6°F  |  |
| Temperature resolution | 0.1°C (at -50°C~199.9°C), 1°C (at -50°C~200°C)<br>0.1°F (at -58°F~199.9°F), 1°F (at -58°F~392°F) |  |
| Sampling rate          | 2.5 times/sec  |  |
| Power supply           | 3×3V CR2450 batteries (for 300 hours working)  |  |
| Operation voltage      | 6.8V~10V   |  |
| Dimension              | 149×76×34mm  |  |
| Weight                 | 220g   |  |



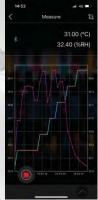
#### STANDARD DELIVERY

| Main unit             | 1 pc  |
|-----------------------|-------|
| Thermocouple (K-type) | 1 pc  |
| CR2450 battery        | 3 pcs |

#### **THERMOHYGROMETER CODE 0310-H26**

- Measure humidity, ambient temperature, dew point temperature and wet dulb temperature
   Min/Max, data hold function
- Bluetooth 4.0
- Auto power off
   Supplied with APP for Apple and Android

#### App measurement



#### App record



#### SPECIFICATION

| Function              | Measuring range        | Resolution  | Accuracy      |
|-----------------------|------------------------|-------------|---------------|
| Ambient temperature   | 0°C~50°C<br>32°F~122°F |             |               |
| Wet dulb temperature  | 0°C~50°C<br>32°F~122°F | 0.1°C/0.1°F | ±1.0°C/±1.8°F |
| Dew point temperature | 0°C~50°C<br>32°F~122°F |             |               |
| Humidity              | 0%RH~80%RH             | 0.1%RH      | ±5.0%RH       |
| Auto power off        | 30 minutes             |             |               |
| Data port             | Bluetooth 4.0          |             |               |
| Power supply          | 9V battery             |             |               |
| Dimension             | 204×54×36mm            |             |               |
| Weight                | 172g                   |             |               |

| Main unit | 1 pc |
|-----------|------|
| Battery   | 1 pc |
|           |      |

- Environment comfort display: COMFORT, WET, DRY
- Time/temperature/humidity display
- Highest/lowest temperature and humidity memory function
- Alarm clock function
- Unit: °C, °F

#### **SPECIFICATION**

| A 615-                 | VIII   |
|------------------------|--|
| Temperature range      | 0°C~50°C/32°F~122°F  |
| Temperature accuracy   | ±1.0°C (at 5°C~40°C), other range ±1.5°C<br>±1.8°F (at 41°F~104°F), other range ±2.7°F |
| Temperature resolution | 0.1°C/0.1°F  |
| Humidity range         | 10%RH~90%RH  |
| Humidity accuracy      | ±5%RH (at 40%RH~80%RH), other range ±8%RH  |
| Humidity resolution    | 1%RH   |
| Power supply           | 1×AAA 1.5V battery   |
| Dimension              | 108×60×15mm  |
| Weight                 | 74g  |





STANDARD DELIVERY

| Main unit | 1 pc |
|-----------|------|
| Battery   | 1 pc |

#### LARGE SCREEN TEMPERATURES AND HUMIDITY METERS



- High definition LED large screen display: temperature, humidity, time
   Exceeding limit alarm: buzzer alarm, digit/light flash alarm
- Installation method: wall mounted or ring type



#### STANDARD DELIVERY

Main unit (including sensor)

1 pc

#### **SPECIFICATION**

| Code                   | 0314-H323A  | 0314-H323B   | 0314-H423A     | 0314-H423B | 0314-H533A   | 0314-H533B | 0314-H643A   | 0314-H643B |
|------------------------|---|--|----------------|------------|--------------|------------|--------------|------------|
| Dimension              | 300×200×36mm  |  | 400×265×36mm   |            | 500×300×36mm |            | 600×400×36mm |            |
| Sensor type            | integrated  | separated  | integrated     | separated  | integrated   | separated  | integrated   | separated  |
| Power consumption      | 5W  |  | 5W             |            | 9W           |            | 10W          |            |
| Weight                 | 1.3kg   |  | 2kg            |            | 3kg          |            | 4kg          |            |
| Sensor                 | integrated: plastic probe case (not dustproof, not waterproof) separated: metal probe case (dustproof, waterproof), cable length 1m (can be customized, within 20m) |  |                |            |              |            |              |            |
| Temperature range      | integrated: -20   | 0°C~60°C; sep  | arated: -40°C~ | 85°C       |              |            |              |            |
| Temperature resolution |   | integrated: 0.1°C (at 0°C~60°C), other range 1°C separated: 0.1°C (at 0°C~85°C), other range 1°C |                |            |              |            |              |            |
| Temperature accuracy   | integrated: ±0.5°C (at 0°C~60°C), other range ±2°C separated: ±0.5°C (at 0°C~85°C), other range ±2°C  |  |                |            |              |            |              |            |
| Humidity range         | 5%RH~95%RH  |  |                |            |              |            |              |            |
| Humidity resolution    | 0.1%RH  |  |                |            |              |            |              |            |
| Humidity accuracy      | ±3%RH (@25°C)   |  |                |            |              |            |              |            |
| Long-term stability    | temperature≤0.1°C/year; humidity≤1%RH/year  |  |                |            |              |            |              |            |
| Repeatability          | temperature≤0.1°C; humidity≤0.5%RH  |  |                |            |              |            |              |            |
| Sampling speed         | 1s  |  |                |            |              |            |              |            |
| Response time          | 3 minutes to reach 90% of the final value   |  |                |            |              |            |              |            |
| Time accuracy          | ±15s/month (@25°C±2°C)  |  |                |            |              |            |              |            |
| Power supply           | AC100~240V (50/60Hz)  |  |                |            |              |            |              |            |
| Power cable length     | 1m (can be customized, 2m/5m)   |  |                |            |              |            |              |            |
| Operation condition    | temperature: -20°C~60°C; humidity: 5%~95% (non-condensing)  |  |                |            |              |            |              |            |





- Suitable for testing the temperature field, humidity field, uniformity and volatility of various temperature (humidity) environment experimental equipment, industrial furnaces and verification furnaces
- 24 channels can be independently configured as thermocouple, platinum resistance,
- humidity sensor and analog input mode
- Each channel provides an accuracy advantage over 0.15°C thermocouple for cold-end compensation Support voltage, resistance, temperature, humidity and other data formats display, storage and output Support Wireless Network, RS232 communication mode: Wireless Network can remotely browse
- real-time data and download stored data, RS232 communication protocol based on RSCII code for encoding and reading data
- Built-in 8G large capacity memory, data can be exported via USB port

#### SPECIFICATION OF TEMPERATURE AND HUMIDITY DATA LOGGER

|                       | Type (electrical signal)              | Range                           | Resolution      | Accuracy                               |  |  |
|-----------------------|---------------------------------------|---------------------------------|-----------------|--|--|--|
|                       |                                       |                                 | ĺ               | 0.05°C at 0°C                          |  |  |
|                       | PT100                                 | -200 ~950°C                     | 0.001°C         | 0.08°C at 300°C                        |  |  |
|                       |                                       |                                 | 0.12°C at 600°C |  |  |  |
|                       | К                                     | -200°C~1300°C                   |                 | 0.5°C                                  |  |  |
| Temperature           | J                                     | -200°C~900°C                    |                 | 0.5°C                                  |  |  |
| remperature           | T -200°C~400°C                        |                                 |                 | 0.5°C                                  |  |  |
|                       | Е                                     | -200°C~1000°C                   |                 | 0.5°C                                  |  |  |
|                       | N                                     | -200°C~1300°C                   | 0.01°C          | 0.5°C                                  |  |  |
|                       | В                                     | 250°C~1820°C                    |                 | 0.8°C at 1000°C                        |  |  |
|                       | R                                     | 0°C~1768°C                      |                 | 0.7°C at 1000°C                        |  |  |
|                       | S                                     | 0°C~1768°C                      |                 | 0.9°C at 1000°C                        |  |  |
| Humidity              | _                                     | 0%RH~100%RH                     | 0.01%RH         | 0.1%RH                                 |  |  |
| Voltago               | range: 100mV                          | -10mV~100mV                     | 0.1µV           | 0.01% of reading+0.008% of full scall  |  |  |
| Voltage               | range: 1V                             | 0V~1V                           | 0.1mV           | 0.01% of reading+0.008% of full scall  |  |  |
| Resistance            | range: 400Ω                           | 0Ω~400Ω                         | 0.1mΩ           | 0.004% of reading+0.004% of full scall |  |  |
| Sampling mode         | 24-channel synchronous                | 24-channel synchronous sampling |                 |  |  |  |
| Sampling speed        | 0.2s/24 channel                       |                                 |                 |  |  |  |
| Memory                | 8G                                    |                                 |                 |  |  |  |
| Output                | USB, wireless, RS232                  |                                 |                 |  |  |  |
| Operation environment | temperature: 5°C~35°C                 |                                 |                 |  |  |  |
| Operation environment | humidity: 0%RH~85%RH (non-condensing) |                                 |                 |  |  |  |
| Storage environment   | temperature: 5°C~35°C                 |                                 |                 |  |  |  |
| Storage environment   | humidity: 0%RH~85%RH (non-condensing) |                                 |                 |  |  |  |
| Power supply          | power adapter                         | power adapter                   |                 |  |  |  |
| Dimension             | 250×180×75mm                          |                                 |                 |  |  |  |
| Weight                | 1.7kg                                 |                                 |                 |  |  |  |

To be continued



K-type thermocouple (optional)



humidity sensor (optional)



platinum resistance PT100 (optional)

#### STANDARD DELIVERY

| · // // // // / / / / / / / / / / / / / |      |  |  |  |
|---|------|--|--|--|
| Main unit                               | 1 pc |  |  |  |
| Power adapter                           | 1 pc |  |  |  |
| 16G USB flash disk                      | 1 pc |  |  |  |

#### **OPTIONAL ACCESSORY**

| Platinum resistance PT100 | THL-A01-PT100 |
|---------------------------|---------------|
| K-type thermocouple       | THL-A01-K     |
| Humidity sensor           | THL-A01-H     |

#### SPECIFICATION OF SENSOR (OPTIONAL)

| Product                   | Code          | Range       | Accuracy   |
|---------------------------|---------------|-------------|--|
| platinum resistance PT100 | THL-A01-PT100 | -80~300°C   | class A: ±(0.150°C+0.002· t )                                |
| K-type thermocouple       | THL-A01-K     | 300~1000°C  | class 1: ±1.5°C (at 300°C~375°C), ±0.004·t (at 375°C~1000°C) |
| humidity sensor           | THL-A01-H     | 0%RH~100%RH | 0.8%RH (at 23°C)   |

#### PORTABLE MEDIUM TEMPERATURE DRY BLOCK CALIBRATOR **CODE DBC-M660**



- Language: English, Chinese
- Overheat protection
- Multi-point temperature correction function
- Automatic tuning of temperature control parameters
- Segmented PID control, one-button heating, full-automatic temperature control





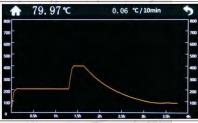
can be customized

soaking block

#### SPECIFICATION

| Temperature range            | 50°C~660°C  |                         |  |  |  |
|------------------------------|---|-------------------------|--|--|--|
| Horizontal temperature field | ≤0.2°C  |                         |  |  |  |
| Vertical temperature field   | within 40mm from the  | ≤0.5°C (at 50°C~300°C)  |  |  |  |
| vertical temperature neid    | bottom of the well  | ≤1.0°C (at 300°C~660°C) |  |  |  |
| Temperature fluctuation      | ±0.15°C   | ±0.15°C                 |  |  |  |
| Temperature resolution       | 0.01°C  |                         |  |  |  |
| Control method               | touch screen  |                         |  |  |  |
| Soaking block                | insertion aperture: Ø4.5mm, Ø6.5mm, Ø8mm, Ø10mm (can be customized) |                         |  |  |  |
| Well depth                   | 170mm   |                         |  |  |  |
| Power                        | 600W  |                         |  |  |  |
| Power supply                 | 220V/50Hz   |                         |  |  |  |
| Dimension                    | 285×170×335mm   |                         |  |  |  |
| Weight                       | 9.4kg   |                         |  |  |  |

real-time display of curve



|               | and the same of th |
|---------------|--|
| Main unit     | 1 pc   |
| Soaking block | 1 pc   |