

## QUALITY TESTING SYSTEM, CALIBRATION OF METEOROLOGICAL INSTRUMENTS

### OVERVIEW

Check and calibrate humidity measurement errors, temperature errors and self-recording time of air humidity measuring devices and sensor-type air temperature measuring devices.

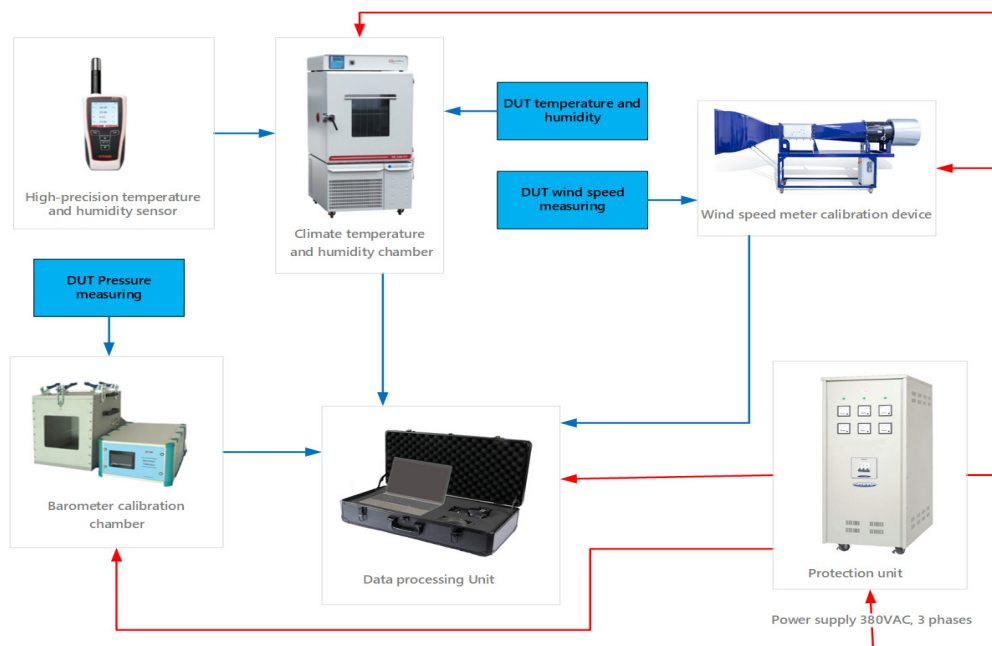
Check and calibrate resolution error, measurement error, return error, repeatability error and linearity of atmospheric pressure measuring devices with absolute zero point as reference point, indicator type digital and analog with measuring range  $\leq 115$  kPa and  $|k| \geq 0.02$  kPa.

Check and calibrate the indicator, discrimination threshold at  $V_{min}$ , error of wind speed measuring device with maximum speed up to 50 m/s, maximum allowable error:  $\pm 5\%$  FS.

Powerful processing unit and specialized software to help acquire, analyze, and automatically calculate measurement data on temperature, humidity, pressure, wind speed according to established testing and calibration procedures. installed and set up to provide accurate results, helping Inspectors have an accurate and objective assessment of the tested equipment.

### CONFIGURATION

QUALITY TESTING SYSTEM, CALIBRATION OF METEOROLOGICAL INSTRUMENTS COMPRISES			
DEVICE NAME	QUANTITY	MODEL/CODE	BRAND
High-precision temperature and humidity sensor	01 unit	HP32 / HC2A-SH	Rotronic
Environmental simulator for temperature and humidity (Climatic chamber)	01 unit	KK-1000 CH	Kambic
Barometer calibration chamber	01 unit	ABC-75	TIS Instruments
Wind speed meter calibration device	01 unit	AWT-260	ASC
Data processing unit	01 unit	DatAV2	Anaxi
Protection unit	01 unit	PSC-50/3	Anaxi
Specialized software	01 unit	MeteorAnalysis	Anaxi
Accessories and cables ensuring comprehensive system connectivity, completing the system.	01 set		



Operation diagram of system

Products' colors and specifications are subject to change without prior notice. All pictures shown are for illustration purposes only.

## COMPONENTS

### HIGH-PRECISION TEMPERATURE AND HUMIDITY SENSOR

- Components:
  - 1x Temperature and humidity device HP32
  - 1x Temperature and humidity probes HC2A-SH
  - 1x cable of micro USB with carrying case
- Measurement range:
  - Temperature: from -50°C to 100°C
  - Humidity: from 0%RH to 100%RH
- Accuracy (at 23 °C): ±0.1 K; 0.5% RH
- Style: Handheld
- IP protection class: IP65
- Enclosure material: ABS, TPR
- Battery: Lithium polymer 3.7 V / 1000 mAh



### ENVIRONMENTAL SIMULATOR FOR TEMPERATURE AND HUMIDITY (CLIMATIC CHAMBER)

- 1x Environmental simulator for temperature and humidity chamber
- Synchronized components:
  - 7" Touch display
  - Front observation window with LED lights
  - USB and Ethernet Interface
  - Monitoring and control panel (integrated software)
  - 50mm diameter access port with outlet on left side
- Temperature range: from 5°C to 180°C
- Temperature stability: ± 0.05°C at 50°C, 50% RH
- Humidity range: from 10% RH to 98% RH
- Resolution T/RH: 0.1°C/1% RH
- Available testing equipment support tray: 01 tray
- Interface: USB and Ethernet
- Power supply: 3x400V AC 3 phase, 50/60 Hz



### BAROMETER CALIBRATION CHAMBER

- Components:
  - 1x Barometer calibration chamber
  - 1x Pressure controller
  - 1x Accessories: Power cable, PVC
- Measure Pressure Range: from 11 Psi to 17 Psi
- Accuracy: 0.01% Full span
- Control Stability: ± 0.0002 psi
- Over pressure: 150% FS or greater
- Range: from 75 kPa to 115 kPa
- Chamber dimension: (1000 x 420 x 380) mm
- Display: 4.3 inches TFT Colour display
- Power supply: 230 VAC



### SPECIALIZED SOFTWARE

- Perpetual license
- Technical support: 12 months for warranty and lifetime free for maintenance
- Management the devices under test. MeteorAnalysis software allows to addition, editing, deleting, searching: measured objects, parameters of measured objects
- Management user permissions
- Automatically calculate the error of measurement parameters: temperature, humidity, pressure, wind speed
- Allow accessing, searching, exporting reports and printing the testing and calibration results accordingly required
- Collect, process and calculate the obtained measurement data

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## WIND SPEED METER CALIBRATION DEVICE

- Synchronized components:
  - Wind tunnel
  - Inspection and testing compartment
  - Wind generating fan
  - Fan speed controller
  - Display screen
- Accessory set includes: Pads; Bolts, Shelves and racks
- Air outlet dimension: 260 mm x 260 mm
- Length of testing area: 400 mm
- Max wind speed: 52 m/s
- Accuracy: 0.3 m/s with speed > 1 m/s
- Power supply: 380 V AC, 3 phase, 50 Hz



## DATA PROCESSING UNIT

- Style: Portable suitcase
- Material: Aluminum alloy
- Processor: Intel® Core™ i5-1235U processor (10 cores, up to 4.4 GHz)
- Memory: 8 Gb
- Internal Storage: 512 GB
- Display: 14 inches Full HD
- Interfaces: Audio; USB; HDMI; Ethernet RJ-45; Wi-Fi
- Battery: Lithium polymer battery



## PROTECTION UNIT

- Capacity: 50 kVA
- Input voltage: 260 ÷ 430 V AC
- Response time against 10% input Voltage Deviation:  
0.4 s ÷ 1s ( $\leq 30\text{kVA}$ ); 1s ÷ 3s ( $\geq 30\text{kVA}$ )
- Stable output voltage 1 phase: 220V AC  $\pm 3\%$
- Stable output voltage 3 phases: 380V AC  $\pm 3\%$
- Automatically disconnect to the load when overcurrent or overvoltage occurs
- The meters display the voltage and current



## ACCESSORIES AND CABLES ENSURING COMPREHENSIVE SYSTEM CONNECTIVITY, COMPLETING THE SYSTEM

- Full accessories and connection cables, power cords, and standard power sockets ensure overall connection and complete system
- 01 Technology table made of powder-coated steel, size 1.6 m x 0.85 m, with power socket, ground connector and anti-static table top
- Full set of manual and catalogue
- Install and ground the entire equipment system and test system operation
- Providing materials, machinery and renovating setup to ensure standard operating environment for the entire system