

ZOGLAB

EVS

**ENVIRONMENTAL VERIFICATION
SYSTEM**





• Constant Temperature and Humidity Laboratory Verification Solution

In compliance with "JJF 1101-2003 Calibration Specification for the Equipment of Environmental Testing for Temperature and Humidity" and "Tobacco-Verification Regulation of Atmosphere Condition for Laboratory", etc.

EVS

Environmental Verification System

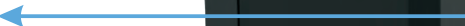
EVS constant temperature and humidity verification system is an integrated solution for professional temperature and humidity verification application, and can connect up to 10 sensors with high accuracy of $\pm 0.5\%$ RH (Relative Humidity) and $\pm 0.1^\circ\text{C}$ (Temperature). With its universal Wi-Fi technology, EVS makes it free from the restriction of complicated cable operation. Built-in environment friendly lithium battery cuts down its system operation cost and enhances its working efficiency. Sensors can continuously work over 48 hrs under high speed measuring mode, and for months in sleep and stand-by mode. Due to its unique data recording function of the sensors, even when the wireless network breaks off, the historical data will be uploaded timely once reconnected. Various optional industry regulations can be operated automatically and generate reports via customized software.

- $\pm 0.1^\circ\text{C}$ and $\pm 0.5\%$ RH High Accuracy Measurement
- Space Stereoscopic Verification Technology of 5,9,15 Points
- Universal 2.4GHz Wi-Fi Communication Technology
- Battery Recharging Design and Super Long Battery Life
- Windows 10 Touchscreen Work Station



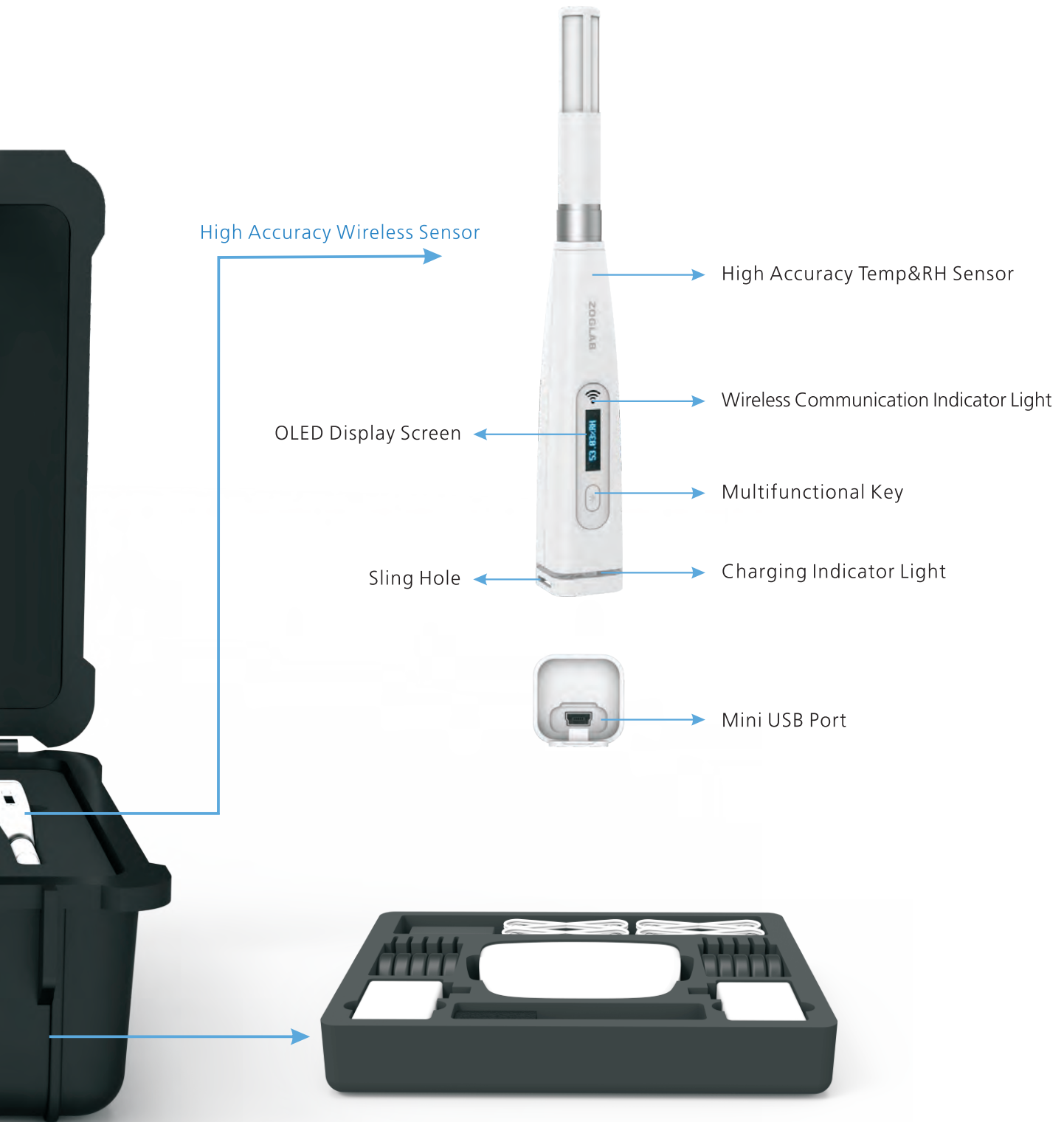
EVS • Host Machine

Tablet Computer
Field Touchscreen Operation



Portable Anti-explosion
Transport Case





System Components Integration Design

Accessories for Communication, Power Supply and Installation are all available; easy for carrying, field installation and verification

EVS • Human-machine Interactive Interface

Superior UI Design

EVS environmental verification system supports flexible mapping (positioning) methods (5 points, 9 points and 15 points), which will be suitable for different laboratory sizes. Software supports parameters setting; Query methods of real-time monitoring, real-time curve and data list are available. Automatically saving data; support various calculation methods according to basic regulations, such as short-term volatility, long-term volatility, etc.; support the export for original temperature and relative humidity recorded data report. EVS system realizes the automation of laboratory environment temperature and relative humidity verification.

Main Interface

Menu

Shortcut Key

Monitoring Point Information Module

Monitoring Point Position

Real-time Temp&RH

Communication Status & Serial Number

Multiple Data Display

Status Bar

Verification Starting Time

Verification Procedure

The screenshot displays the EVS Main Interface. At the top, there is a menu bar with options like '系统 (S)', '视图 (V)', '设置 (S)', '查询 (Q)', and '帮助 (H)'. Below this is a grid of 16 monitoring points (A through L). Each point displays its position, real-time temperature (T), relative humidity (H), and communication status with a serial number (SN). For example, Point A shows Position: 192.168.0.162 A, T: 28.69 °C, H: 70.45%, and SN: WPU001. Points K and L are marked as 'OFF'. At the bottom, a status bar shows the verification starting time (2015-08-02 15:56:10), the verification procedure (温度 15% 湿度 10%), and the power source (Powered by ZOGLAB).

System Starting Interface



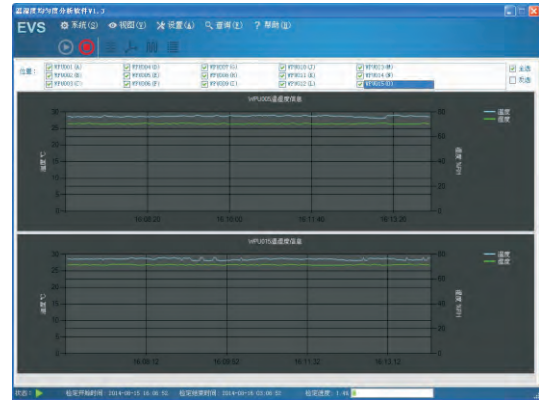
Data List

Real-time Query for Verification Data

编号	传感器	位置	数据	单位	时间
1	WYB007	F	182.050	0.176	70.47
2	WYB008	F	182.050	0.176	70.44
3	WYB009	F	182.050	0.176	70.44
4	WYB010	F	182.050	0.176	70.44
5	WYB011	F	182.050	0.176	70.44
6	WYB012	F	182.050	0.176	70.44
7	WYB013	F	182.050	0.176	70.44
8	WYB014	F	182.050	0.176	70.44
9	WYB015	F	182.050	0.176	70.44
10	WYB016	F	182.050	0.176	70.44
11	WYB017	F	182.050	0.176	70.44
12	WYB018	F	182.050	0.176	70.44
13	WYB019	F	182.050	0.176	70.44
14	WYB020	F	182.050	0.176	70.44
15	WYB021	F	182.050	0.176	70.44
16	WYB022	F	182.050	0.176	70.44
17	WYB023	F	182.050	0.176	70.44
18	WYB024	F	182.050	0.176	70.44
19	WYB025	F	182.050	0.176	70.44
20	WYB026	F	182.050	0.176	70.44
21	WYB027	F	182.050	0.176	70.44
22	WYB028	F	182.050	0.176	70.44
23	WYB029	F	182.050	0.176	70.44
24	WYB030	F	182.050	0.176	70.44
25	WYB031	F	182.050	0.176	70.44
26	WYB032	F	182.050	0.176	70.44
27	WYB033	F	182.050	0.176	70.44
28	WYB034	F	182.050	0.176	70.44
29	WYB035	F	182.050	0.176	70.44
30	WYB036	F	182.050	0.176	70.44
31	WYB037	F	182.050	0.176	70.44
32	WYB038	F	182.050	0.176	70.44
33	WYB039	F	182.050	0.176	70.44
34	WYB040	F	182.050	0.176	70.44
35	WYB041	F	182.050	0.176	70.44
36	WYB042	F	182.050	0.176	70.44
37	WYB043	F	182.050	0.176	70.44
38	WYB044	F	182.050	0.176	70.44
39	WYB045	F	182.050	0.176	70.44
40	WYB046	F	182.050	0.176	70.44
41	WYB047	F	182.050	0.176	70.44
42	WYB048	F	182.050	0.176	70.44
43	WYB049	F	182.050	0.176	70.44
44	WYB050	F	182.050	0.176	70.44

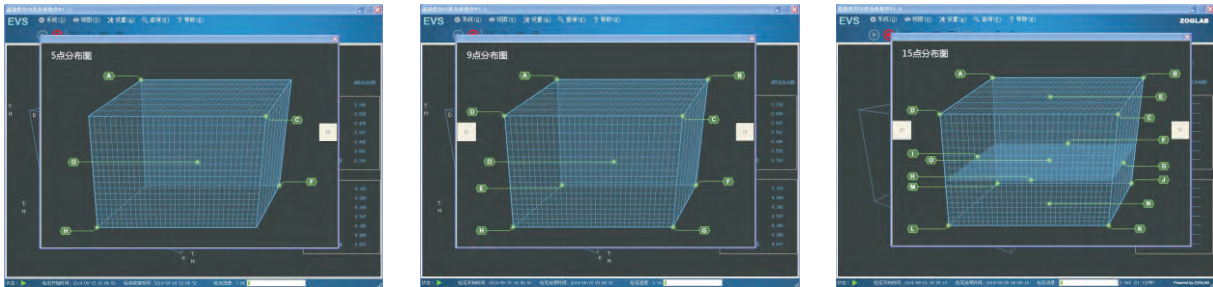
Curve Diagram

Temp&RH changing curve query



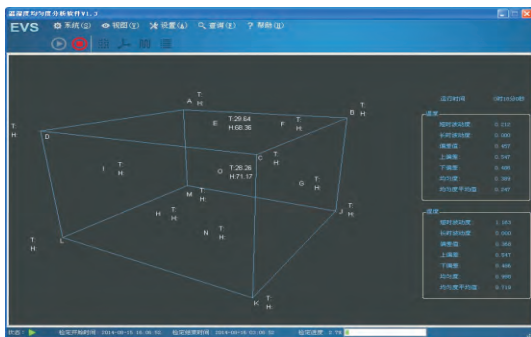
Mapping Diagram

Could check mapping(positioning)diagram of 5 points, 9 points and 15 points



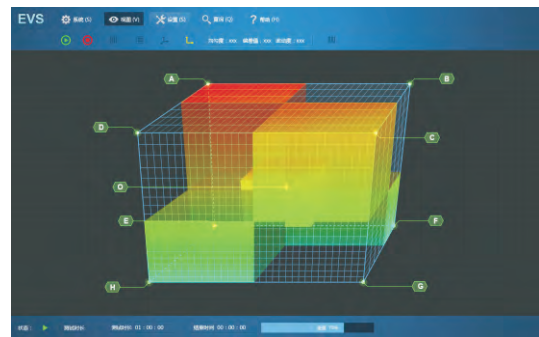
Three-dimensional Diagram

Real-time display status for each monitoring points

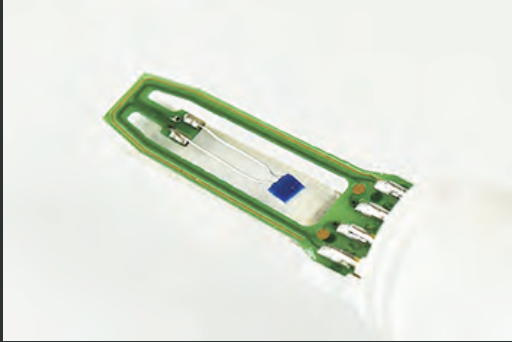


Thermal Field

Visual display for thermal field homogeneity



EVS • Features & Functions



Ultimate Accuracy

- Temp Measuring accuracy $\pm 0.1^{\circ}\text{C}$ ($-20^{\circ}\text{C} \sim 40^{\circ}\text{C}$)
- RH Measuring accuracy $\pm 0.5\% \text{RH}$ ($15\% \sim 85\% \text{RH}$)



Wireless Connection

- Communication standard 802.11 b/g/n
- Frequency band 2.412G Hz~2.484G Hz



Quick Installation

- Various installation kits
- Quick suspension installation method, height adjustable



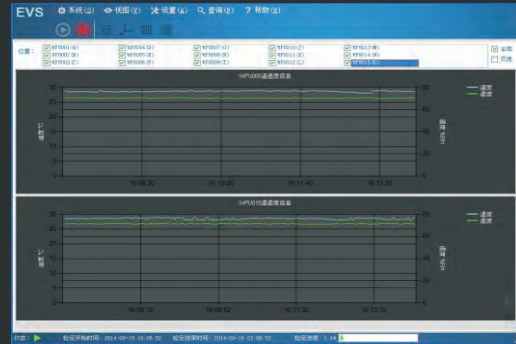
Portable Design

- All accessories integration Design
- Anti-explosion transport Case



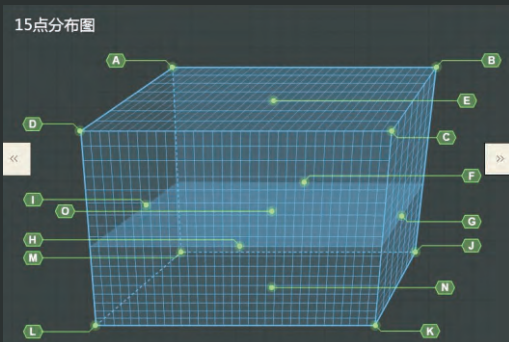
Quick Charging

- Build-in Battery could support quick charging
- Battery works more than 48 Hrs



Intelligent Software

- Software in compliance with the industry regulations
- Real-time Curve Check
- Laboratory environment temperature&RH verification automation



Multiple Points Verification

- Flexible positioning methods. Support 5 points, 9 points and 15 points verification
- More points expansion as per customized request



Electromagnetic Compatibility

- CE, FCC, VCCI, C-TICK certified

Technical Specification

Measuring Specification

T Measuring range	-50°C~100°C	RH Measuring range	0%~100%RH
T Measuring accuracy	±0.1°C(-20°C~40°C)	RH Measuring accuracy	±0.5%RH(15%~85%RH), ±2%RH(other range)testing environment 23°C±2°C
T Resolution	0.01°C/0.02°F	RH Resolution	0.01%RH

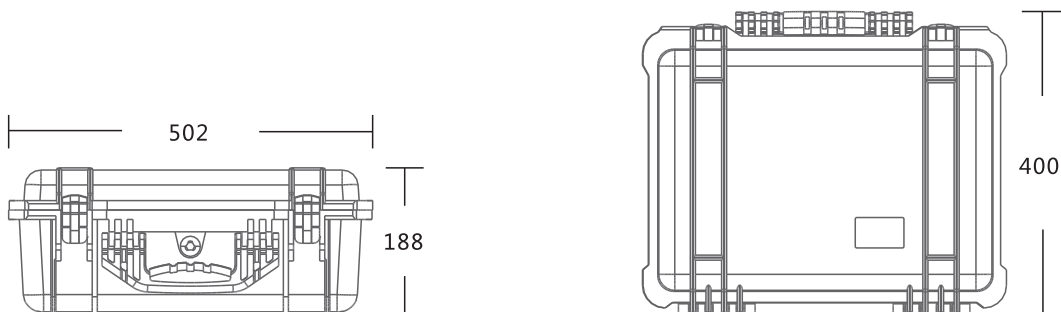
Communication Specification

Wireless communication	802.11 b/g/n	Receiving sensitivity	802.11b : -93dBm(@11Mbps , CCK) 802.11g : -85dBm(@54Mbps , OFDM) 802.11n : -82dBm(@HT20 , MCS7)
Frequency band	2.412G Hz~2.484G Hz	Status indicator	The blue light indicates wireless linking The yellow respiratory light indicates charging status
Transmit power	802.11b : ±16 ±2dBm(@11Mbps) 802.11g : ±14 ±2dBm(@54Mbps) 802.11n : ±13 ±2dBm(@HT20 , MCS7)		

General Specification

Sensor	PT100 / Humidity capacitance, 10 pcs/Set	Charging voltage	4.8~5.5VDC
Data process	Support real time data transmission and logging	Charging current	<1.25A@5VDC
Sampling interval	2s、5s、10s、30s、60s、255s	Charging time	about 4 hours
Logging interval	2 seconds~24 hours	Software standard	version /Industry version
Memory size	250,000/1,000,000 units	Storage temperature	-50°C~90°C
Start mode	Software / Remote start	ESP protection	±25KV
Communication port	Mini-USB, 9600bps 8 N 1	IP class	IP67(When the transport case lid is closed)
Current consumption	Average current 20mA, peak current 200mA	Weight	9Kg
Battery	3.7V lithium battery (Rechargeable), capacity>2500mAh	Dimensions	502mm×400mm×188mm
Battery lifetime	Continuously work for over 48 hours (Logging Interval 2 seconds)	Work station	Windows 10 Touchscreen Work Station
Stand-by time	3 months	Certificates	CE, FCC, VCCI, C-TICK

Dimensions(mm)



EVS • Accessories

Standard Accessories

WPUx10



5 hole charger x2



USB communication cable x10



Tablet PC



Stylus pen



Tablet computer power cable



Wireless router



Power adapter



LAN communication cable



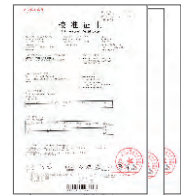
Suspension kit x10



Telescopic hanging rod



Calibration Certificate



User's manual



Warranty card



Qualification



Maintenance manual



WEEE card



CD



Optional Accessories

HC2-S



Portable bag



Ordering Information

Ordering model	Features
EVS PRO -16	RH accuracy $\pm 0.5\%RH$, T accuracy $\pm 0.1^\circ C$, 16 pcs of sensors
EVS PRO -10	RH accuracy $\pm 0.5\%RH$, T accuracy $\pm 0.1^\circ C$, 10 pcs of sensors
EVS PRO -6	RH accuracy $\pm 0.5\%RH$, T accuracy $\pm 0.1^\circ C$, 6 pcs of sensors
EVS STD -16	RH accuracy $\pm 1.5\%RH$, T accuracy $\pm 0.2^\circ C$, 16 pcs of sensors
EVS STD -10	RH accuracy $\pm 1.5\%RH$, T accuracy $\pm 0.2^\circ C$, 10 pcs of sensors
EVS STD -6	RH accuracy $\pm 1.5\%RH$, T accuracy $\pm 0.2^\circ C$, 6 pcs of sensors

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