Multi-in-One Module

(Model: ZEH100)

Manual

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Zhengzhou Winsen Electronic Technology Co., Ltd

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Zhengzhou Winsen Electronics Technology CO., LTD

ZEH100 Multi-in-One Module

Product description:

The 5-in-1 module with integrated carbon monoxide, hydrogen, VOC, smoke and temperature sensors has been developed as a detection and alarm module for use in complex environments.

The module uses different principle sensors to detect carbon monoxide, hydrogen, VOC, smoke and temperature in a complex environment in real time.

Characteristics:

High temperature resistance; Fast response; High precision; Long life; Light alarm function; Support CAN and 485 communication mode.

Applications:

Detection and alarm in energy storage applications and security detection.

Parameters:

Table1.

Model	ZEH100
Detection gas	CO, H2, VOC, Smoke, Temperature
Output signal	CAN, 485
Alarm method	Light Alarm
Working voltage	12～30V DC
Preheat time	3min
Response time	≤30S
Resume time	≤60S
Alarm point	CO: 190ppm H2: 200ppm VOC: 200ppm Smoke: 0.25dB/m Temperature: 70℃

Range	CO: 0～1000ppm
	H2: 0～1000ppm
	VOC: 0～500ppm
	Temperature: -40～85℃
Working temperature	-40℃～85℃
Working humidity	15%RH～90%RH (No condensation)
Storage temperature	-10℃～55℃
Storage humidity	30%～60%RH

Note: The green light flashes when preheating, the green light is always on when preheating is completed, and it enters the normal working state (no concentration detection is done during preheating); The red light is always on when an alarm happens, and the yellow light is always on when a fault happens.
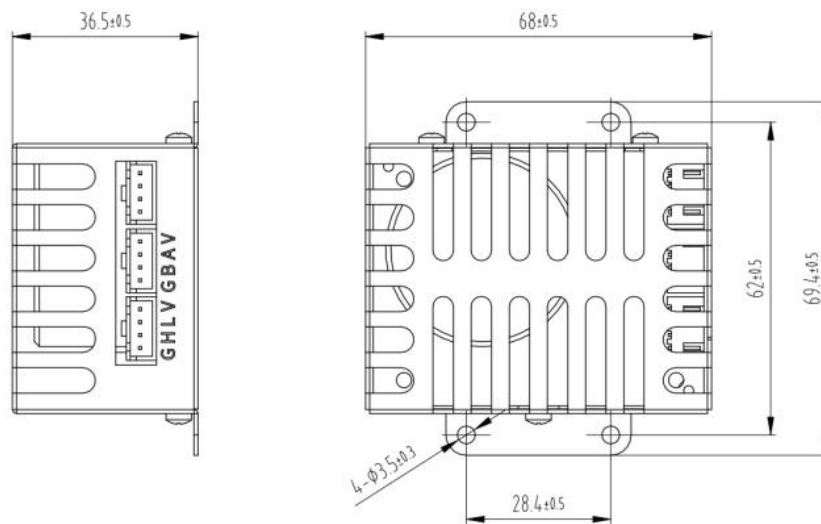
Module structure diagram:

Fig1. Module structure diagram

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Pin definition：

Table2.

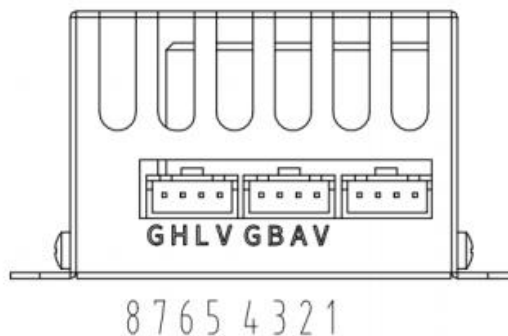| No.	Name	Function
1	V	Power supply +
2	A	485 A
3	B	485 B
4	G	Power supply -
5	V	Power supply +
6	L	CAN L
7	H	CAN H
8	G	Power supply -

Fig2. Module pin definition

Note: Just choose one of the ports 1234 and 5678 to use.

Communication protocol:

CAN communication protocol: CAN is active reporting mode
485 communication protocol: 485 is question and answer mode
Specific protocol details refer to the ZED100 communication protocol file.

Cautions

1. Prohibit disassembling the module.

2. Prohibit alteration and displacement of electronic components installation status.

3. Avoid contact with organic solvents (including silicone and other adhesives), paints, chemicals, oils and high concentration of gas.

4. The module can't withstand excessive impact or vibration.

5. The module should be preheated for more than 20 minutes when it is first powered on.

6. Do not use the module in the system involving personal safety.

7. Do not install the module in a strong air convection environment.

8. Do not place the module in high concentration of organic gas for a long time.