

AC/ DC Voltage Transducer

Instructions

CE-VH05-1*MS*-0.5

1 Overview

The output signal of transducer can fast track the input signal changing. This product adopts the new isolation chip, photoelectric isolation principle, the input AC / DC voltage signal is converted to a linear AC / DC voltage signal after isolation. It is a treble isolation product that its input, output and auxiliary power supply are isolated from each other. With characteristics of high precision, high isolation voltage, high speed, low temperature drift. It Solves the problems of the common mode interference of sensor, transducer or instrument signal transmission, electrical isolation and signal standardization. It is especially suitable for high-speed transient waveform collection, harmonic analysis and rapid monitoring and alarm fields, and can be widely used in electricity, railways, communication, PLC measurement and control system and various automatic control systems.

Features:

- Ø High accuracy, better than 0.5;
- Ø fast response uS level;
- Ø The output port and power port can withstand 2KV surge impact.

2 Case Style

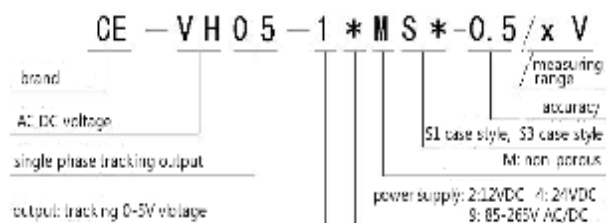


Figure 1, MS1 case



Figure 2, MS3 case

3 Part Number



4 Specifications

Test condition: auxiliary power supply: 24V, room temperature: 25°C;

Input range: voltage: 0-1V~500V AC/DC;

Output: 0-5V AC/DC;

Auxiliary power supply: 12VDC, 24V DC, 85-265V AC/DC(MS3 case style);

Accuracy: class 0.5;

Input impedance: 20*U KΩ(U<50V), 1MΩ(≥50V) ;

Load capacity: ≥2KΩ;

Temperature drift: ≤200ppm/°C;

Isolation voltage: ≥2500 V DC ;

Response time: ≤20 uS ;

Rated power consumption: <1.1W;

Output ripple: none;

Frequency range: 0~1KHZ;

Surge impact immunity:

Power port three-level ±2KV (L-N/2Ω/integrated wave),

Analog output port three -level (L-N/40Ω/integrated wave);

Impulse immunity: input/power port ±2KV, analog output port ±1KV;

Input overload capacity: 2 times of the measured voltage normal value.

Operating condition: temperature:-10~60°C; humidity: ≤95% (no dew);

Storage condition: -20~70°C.

5 Connections Diagram

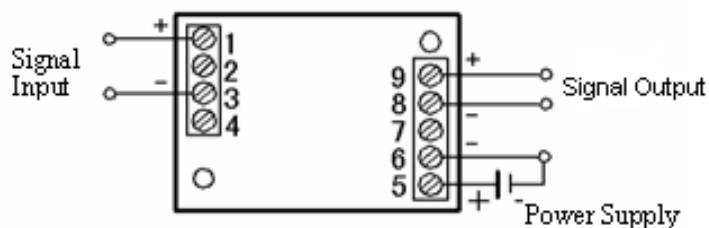


Figure 3, wiring diagram of CE-VH05-1*MS1/MS3

6 Installations

DIN35 rail mounting or screw mounting, the installation size as shown in figure 4(in mm).

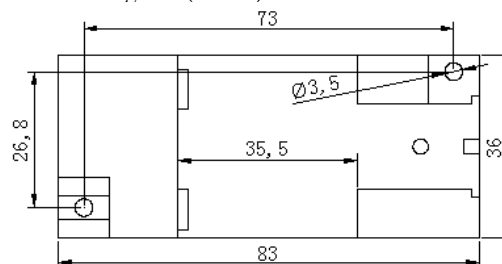


Figure 4 installation dimensions

7 Product's Service

1 Installation

1.1 DIN rail installation method:

- ① Fix the transducer on the side of the card slot and hook on the mounting rail;
- ② Pull the spring pin down;
- ③ Clip the transducer mount on the mounting rail;
- ④ Release the spring pin and clip the transmitter on the mounting rail.

1.2 Screw mounting method:

- ① 4mm diameter hole in the fixed plate according to the screw hole position shown in Fig. 5;
 - ② Use the screw $\Phi 3.5$ to insert into hole and secure it.
- 2 Product has been accurately set according to the "product standard". Apply power after determine the correct wiring.
- 3 The maximum wire diameter of the terminal block is 2mm (16-26AWG). Remove the 4mm ~ 5mm insulation layer from the end of the mounting wire and insert it into the terminal block, then tighten the screw.
- 4 Product supply power requires the isolation voltage $\geq 2000\text{VAC}$, AC ripple $< 10\text{mV}$. Multiple transducers can share a common set of power supplies, but the power circuit can no longer be used to drive relays and other can produce spikes in the load, in order to avoid interference signal transmission to the transducer.
- 5 The transducers output 0-20mA (or 4-20mA), the RL standard is $\leq 250\Omega$, and 0-5V voltage output RL standard is $\geq 2\text{K}\Omega$, can guarantee the output accuracy and linearity over the entire rated input range.

9 Notes

- 1 Please pay attention to the wiring on product label and the output contact capacity.
- 2 Transducer for the integrated structure, not removable, and should avoid collision and fall.
- 3 The transducers are used in environments with strong electromagnetic interference. Standard precaution such as shielding the input and /or output lines should be observed. All lines should be as short as possible. If a group of transducers are mounted together, keep a space more than 10mm between adjacent units.
- 4 The input value given on the transducer label refers to the rms value of the ac signal.

5 Only use the effective terminal of the transducer. The other terminals may be connected with the internal circuit of the transducer, and can't be used for other purposes.

6 Transducer has a certain anti-lightning ability, but when the transducer input and output feeders exposed to extreme bad environments, must be taken lightning protection measures.

7 Don't damage or modify the product label and logo. Don't disassemble or modify the transducer, otherwise the company will no longer provide the product "three guarantees" (replacement, returns, repair) services.

8 The transducers use flame-retardant ABS plastic shell package. which limit temperature is $+75\text{ }^{\circ}\text{C}$. The shell will be deformed with high-temperature baking, and will affect product performance. Do not use or save the product near the heat source. Do not bake the product in a high-temperature oven.

9 When measuring the voltage or current with the multi meter pen, please screw the terminal screw in the end, otherwise it may not measure the voltage or current output value.