

## Single phase DC voltage transducer

**CE-VZ (B、M) 01-\*\*MS1-\***

### 1 Overview

This device is a kind of DC voltage isolation transducer, adopts the principle of optoelectronic/treble isolation, can sample the DC voltage, and isolated output 0~5V, 0~20mA or 4~20mA standard signals, electrical isolation between input and output, and completely linear relationship between output signal and input signal. This product with advantages of high precision, rapid response, high voltage isolation, low temperature drift, wide working temperature range, easy for installation, comply with international standards. Can widely used in real-time detection/monitoring of DC voltage signals, field data collection in computer scene, industrial control, PLC measurement and control, and a variety of automatic control system.

### 2 Case style

Length × Width × Height=83mm×36mm×29.5mm

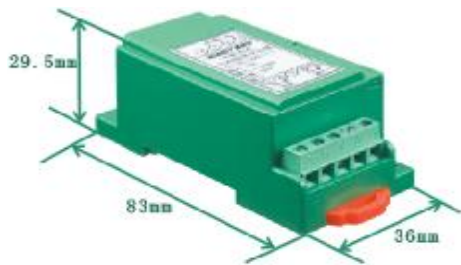


Figure1, MS1 type case style

### 3 Part number

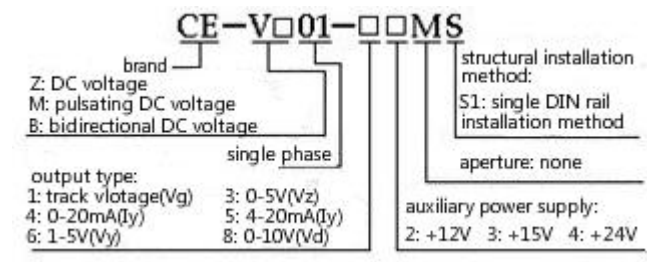


Figure2 product model selection table

### 4 Specifications

- \* Test conditions: auxiliary power supply: +12V  
room temperature: 25℃.
- \* Input range: voltage 0~10mV~500V;
- \* Accuracy: class 0.2、class 0.5 (adopts fiducial error);
- \* Load capacity:  $\geq 2K\Omega$ ( voltage output)  
 $\leq 300\Omega$ (current output);
- \* Temperature drift: class 0.2=200ppm/℃  
class 0.5= 500ppm/℃
- \* Isolation voltage: 2500 V DC
- \* Response time:  $\leq 400$  ms
- \* Rated power consumption: voltage output $\leq 180$ mW  
current output (4~20mA) $\leq 300$ mW
- \* Output ripple:  $\leq 10$ mV
- \* Frequency range: none
- \* Surge impact immunity:  
Power port three-level 2000V

(L-N/2Ω/ integrated wave)

Analog I/O port three-level 2000V

(L-N/40Ω/integrated wave);

\* Input overload capacity: 2 times rated input value, 10 times per second

\* Operating condition: temperature: -10~60℃;

\* Storage condition: -40~+70℃

### 5. Connections Diagram

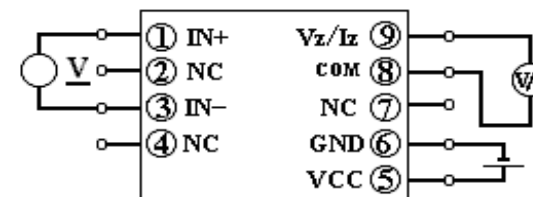


Figure 3, product connections diagram

Pin 1: IN+, voltage input positive terminal;

Pin 3: IN-, voltage input negative terminal;

Pin 5: VCC, auxiliary power supply positive terminal;

Pin 6: GND, auxiliary power supply ground terminal;

Pin 8: COM, signal output negative terminal;

Pin 9: Vz/Iz, voltage/current output positive terminal;

Other undefined pins can not be used for other purposes.

### 6 Mounting Diagram

DIN35rail mounting size: card slot width 35.5mm;

Screw mounting size: 73 mm×26.8mm;

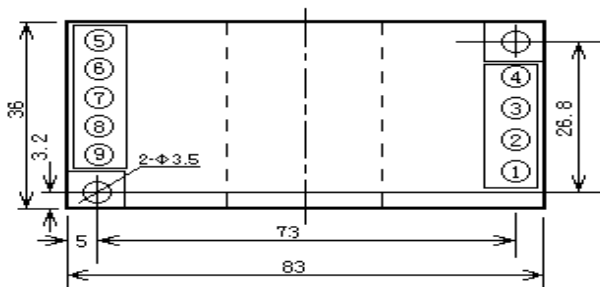


Figure 4, DIN rail or screw installation plan

## 7 Notes

7.1 The voltage of the power supply must accord with the nominal value, especially +12V and +15V product can not connect + 24V power supply, otherwise the product will be burned out.

7.2 When measuring the voltage or current with the multi meter pen, please screw the terminal screw in the end, otherwise it will influence the voltage or current output measuring value. The terminal block wiring wire diameter  $\leq 1.4\text{mm}$ , otherwise it may cause terminal screw slipped.

7.3 Must connect the signal input, output and auxiliary power supply correctly according to corresponding connections diagram of the product model. Confirm there is no mistake then apply power to the transducer.

7.4 The operating condition should without dew, conductive dust and damaged insulation, metal corrosive gases.

7.5 If a group of transducers are mounted together, keep a

space more than 10mm between adjacent units.

7.6 The transducer's zero point and accuracy have been calibrated before delivery, please do not calibrate casually. If indeed to calibrate, please contact with our company.

7.7 Integrated structure of the transducer, non-removable, and should avoid collision and fall, don't modify or tear off any labels of the product.

7.8 There is no lightning protection circuit inside the transducers. Please adopt lightning protection when the input and output feeders of the transducers are exposed to adverse weather conditions.