ChenYang
Technologies GmbH & Co. KG

# Fluxgate Closed Loop Voltage Sensor CYFGVS3000EVT

CYFGVS3000EVT is a voltage sensor based on the fluxgate closed-loop principle. Through TRMS measurement, it converts the measured voltage into a DC current or voltage output proportional to the primary voltage, and is capable of measuring DC, AC, pulse, and a variety of irregular waveform voltages under galvanic isolation conditions. It is characterized by high accuracy, high linearity, high integration, small size and simple structure, and stable long-term operation.

## Features

- High electrical isolation
- High linearity, high accuracy
- High reliability
- Good overload capability
- Small sizes
- Insulated plastic case recognized according to UL94-V0
- Very good property-price ratio

## Applications

- Battery supplied applications
- Uninterruptible power supplies (UPS)
- Variable speed drives
- Welding machine
- Electric power network monitoring
- AC frequency conversion servo-motors
- Electrochemical applications

## Technical Data

| **Parameters** | **Values** | | | | | | Unit |
|---|---|---|---|---|---|---|---|
| Part number | CYFGVS 50EVT | CYFGVS 200EVT | CYFGVS 500EVT | CYFGVS 1000EVT | CYFGVS 2000EVT | CYFGVS 3000EVT | |
| Rated input voltage RMS | 50 | 200 | 500 | 1000 | 2000 | 3000 | V |
| Measuring voltage range | ±120% | | | | | | |
| Rated output voltage DC | 5 or 10 | | | | | | V |
| Input internal resistance | 50K | 200K | 0.5M | 1.0M | 2.0M | 3.0M | Ω |
| Supply Voltage | +20～+32(±5%) | | | | | | V |
| Current consumption | At $V_P$=0 | | 50 | | | | mA |
| Insulation voltage | Between primary and secondary circuits 6kV rms/50Hz/1minute | | | | | | |
| Linearity | <±0.1 | | | | | | %FS |
| Accuracy | $T_A$=25℃ $V_C$=±15V | | ±1.0 | | | | %FS |
| Zero Offset Voltage | $T_A$=25℃ | | <±35 | | | | mV |
| Temperature Drift of Offset Voltage | $V_P$=0， $T_A$=-25～+85℃ | | <±0.5 | | | | mV/℃ |
| Response Time | <150 | | | | | | ms |
| Bandwidth (-3dB) | DC, 20~6000 | | | | | | Hz |
| Operating Temperature | -25~+85 | | | | | | ℃ |
| Storage Temperature | -40~+100 | | | | | | ℃ |
| Load Resistance | ≥5k | | | | | | Ω |
| Load Capacitance | <5 | | | | | | nF |
| Mass (approx.) | 480 | | | | | | g |
| Used Standard | Q/320115QHKJ01-2016 | | | | | | |

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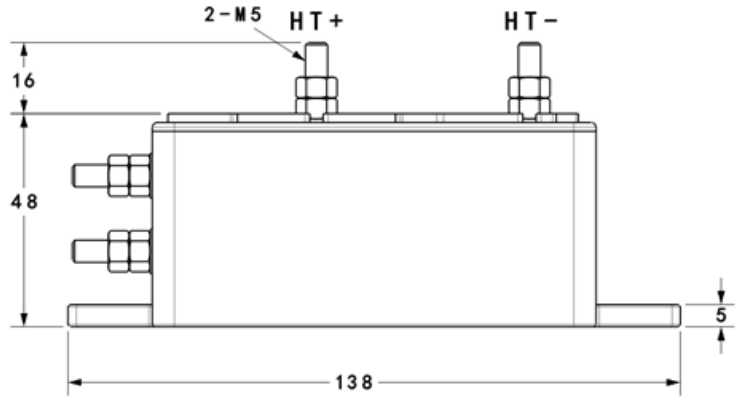
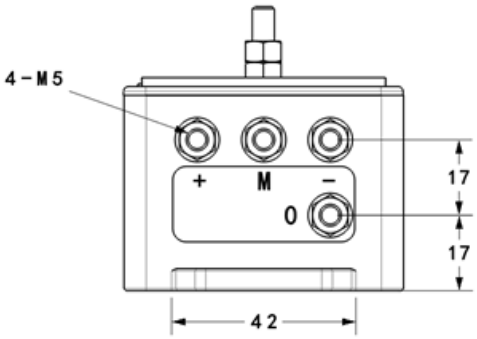
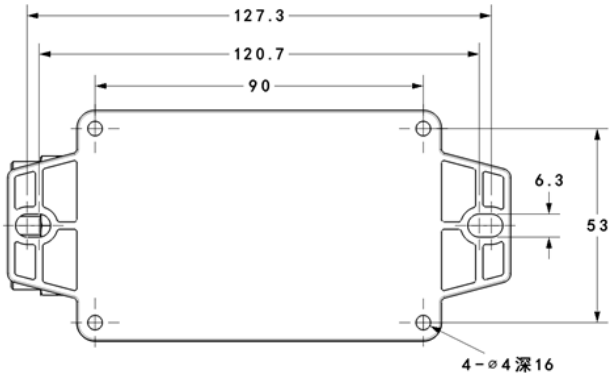
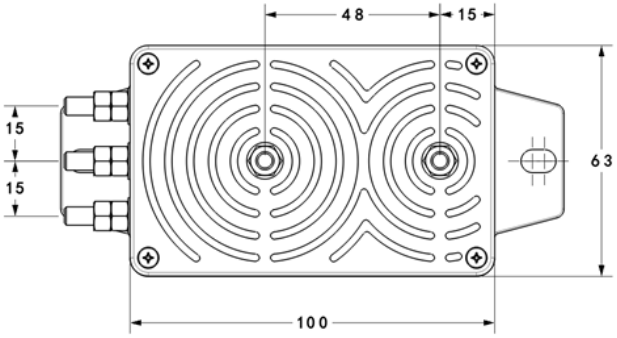
## Case Style and Connection

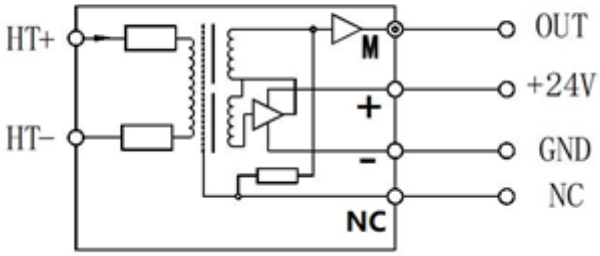



Connection




## Application Note

1. Incorrect wiring of the sensor may cause damage to the module of the sensor.
2. During the sensor is witched on, the same voltage phase value can be measured at the output when the measured voltage is accessed from the sensor input HT+ terminal to HT- terminal.
3. The environment in which the sensor is installed and used should be free of conductive dust and corrosion.
4. After the sensor is installed, the operator should not touch any exposed conductive parts. If necessary, the sensor can be protected, such as adding protective cover.

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