

Fluxgate Closed Loop Voltage Sensor CYFGVS3000EV

CYFGVS3000EV is a voltage sensor based on the fluxgate closed-loop principle, and can be used for measuring DC, AC, pulse and various irregular waveform voltages under galvanic isolation conditions. It has ultra-high accuracy and linearity, ultra-high sensitivity and resolution, very low out-of-phase current and temperature drift. It is widely used in instrumentation, medical equipment, metrology and calibration, laboratories, high-precision power supplies, new energy vehicles and so on.

Features

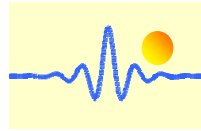
- High electrical isolation
- High linearity, high accuracy
- High reliability
- Good overload capability
- Small sizes
- Insulated plastic case recognized according to UL94-V0
- Very good property-price ratio

Applications

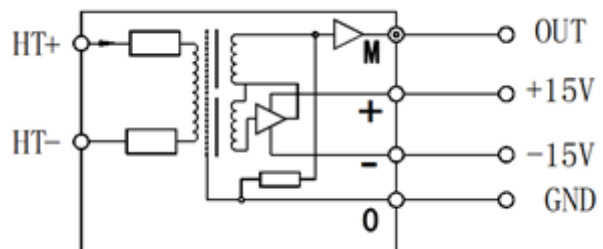
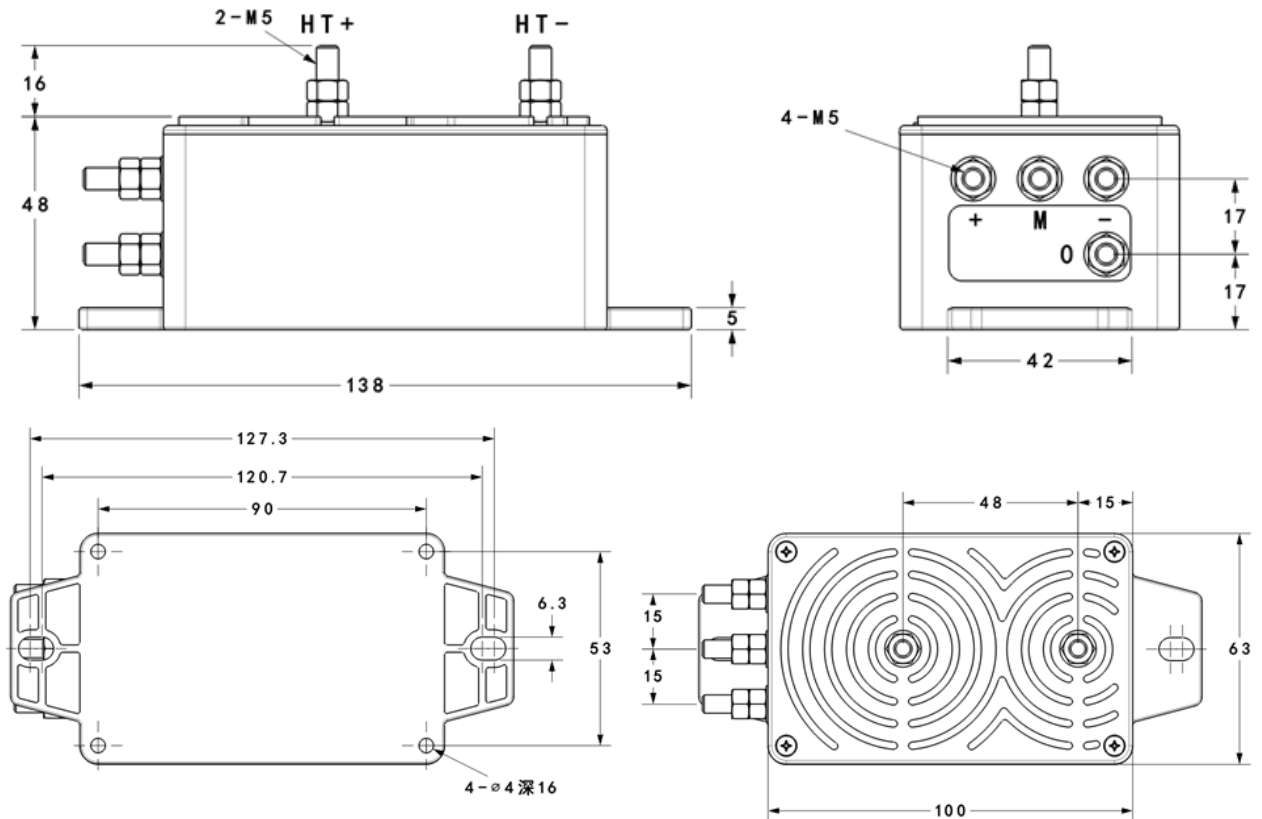
- Battery supplied applications
- Uninterruptible power supplies (UPS)
- Variable speed drives
- Welding machine
- Electric power network monitoring
- AC frequency conversion servo-motors
- Electrochemical applications

Technical Data

Parameters	Values						Unit
	CYFGVS 50EV	CYFGVS 200EV	CYFGVS 500EV	CYFGVS 1000EV	CYFGVS 2000EV	CYFGVS 3000EV	
Rated input voltage	50	200	500	1000	2000	3000	V
Measuring voltage range	±120%						
Rated output voltage	5						V
Input internal resistance	50K	200K	0.5M	1.0M	2.0M	3.0M	Ω
Supply Voltage	±12~±15(±5%)						V
Current consumption	At $V_P=0$ 35						mA
Insulation voltage	Between primary and secondary circuits 6kV rms/50Hz/1 minute						
Linearity	<0.05						%FS
Accuracy	$T_A=25^\circ\text{C}$ $V_C=\pm 15\text{V}$ ±0.1						%FS
Zero Offset Voltage	$T_A=25^\circ\text{C}$ <±5						mV
Temperature Drift of Offset Voltage	$V_P=0$, $T_A=-25\sim+85^\circ\text{C}$ <±0.1						mV/ °C
Response Time	<1						μs
Bandwidth (-3dB)	DC~100						kHz
Operating Temperature	-25~+85						°C
Storage Temperature	-40~+100						°C
Load Resistance	≥5k						Ω
Load Capacitance	<5						nF
Mass (approx.)	480						g
Used Standard	Q/320115QHKJ01-2016						



Case Style and Connection



Application Note

1. Incorrect wiring of the sensor may cause damage to the module of the sensor.
2. During the sensor is switched 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.