ChenYang
Technologies GmbH & Co. KG

Fluxgate Closed Loop Voltage Sensor CYFGVS3000EVA

CYFGVS3000EVA 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
Part number	CYFGVS 50EVA	CYFGVS 200EVA	CYFGVS 500EVA	CYFGVS 1000EVA	CYFGVS 2000EVA	CYFGVS 3000EVA	
Rated input voltage	50	200	500	1000	2000	3000	V
Measuring voltage range	±150%						
Rated input current	1.0						mA
Rated output current	I_{OUT} = 50						mA
Measuring resistance	V_C=±15V, V_P=±1.0mA 时: 50～200						Ω
Input internal resistance	50K	200K	0.5M	1.0M	2.0M	3.0M	Ω
Total Input Power Consumption	0.05	0.2	0.5	1	2	3	W
Supply Voltage	±12～±15(±5%)						V
Current consumption	At V_P=0 35+I_{OUT}						mA
Insulation voltage	Between primary and secondary circuits 6kV rms/50Hz/1minute						
Linearity	<0.05						%FS
Accuracy	T_A=25℃ V_C=±15V ±0.1						%FS
Zero Offset Current	T_A=25℃ <±10						μA
Thermal Drift of Offset Current	V_P=0，T_A=-25～+85℃ <±10						μA
Response Time	<1						μs
Bandwidth (-3dB)	DC~100						kHz
Operating Temperature	-25~+85						℃
Storage Temperature	-40~+100						℃
Mass (approx.)	480						g
Used Standard	Q/320115QHKJ01-2016						

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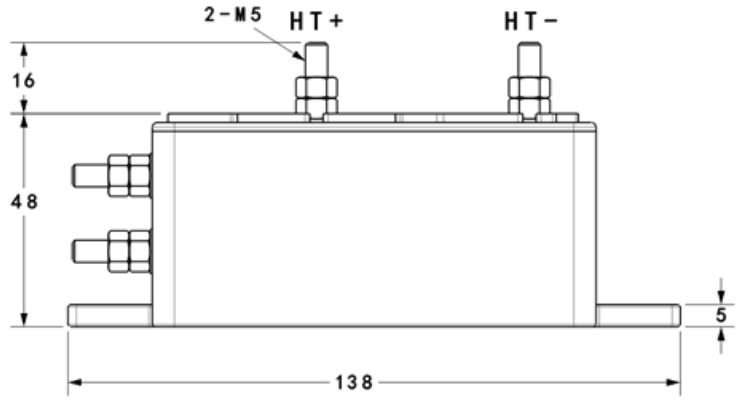
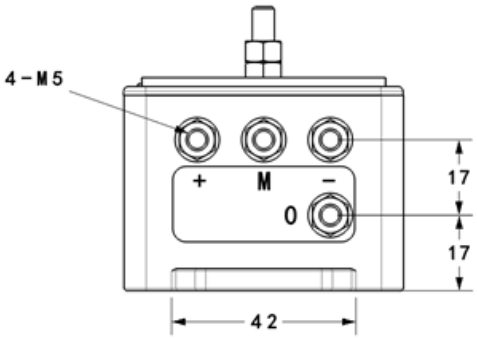
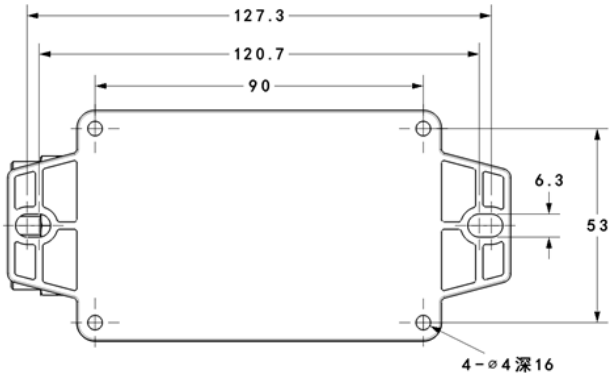
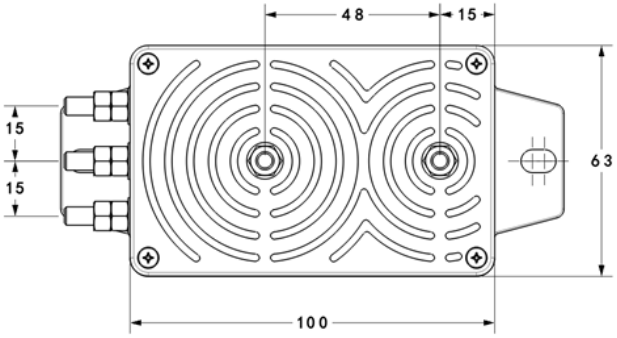
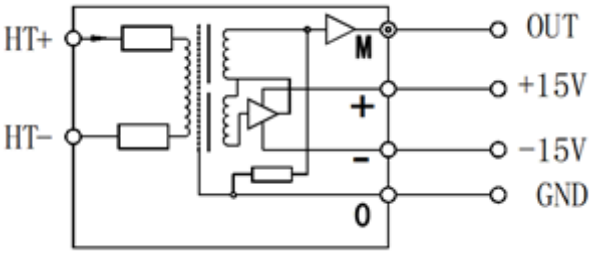
Case Style and Connection











Application Note

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