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%						
Overload capability	6000						V
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=+24V		±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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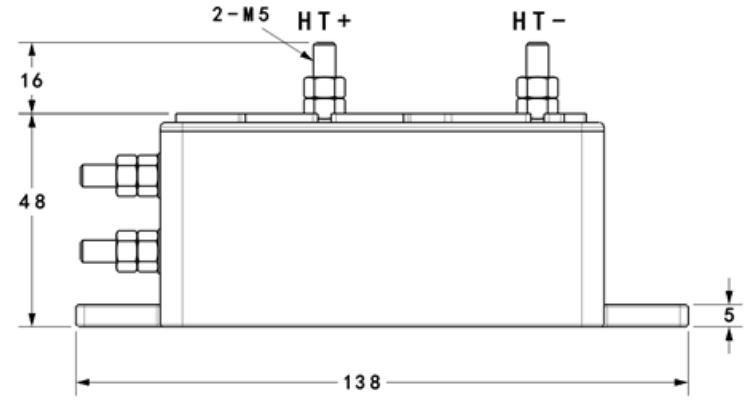
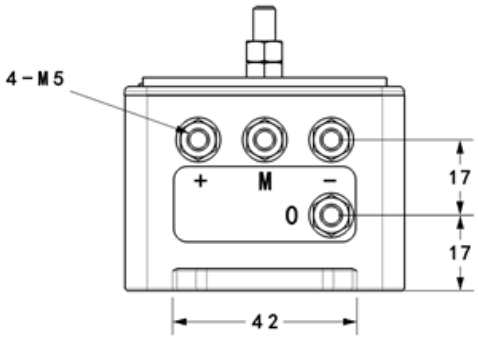
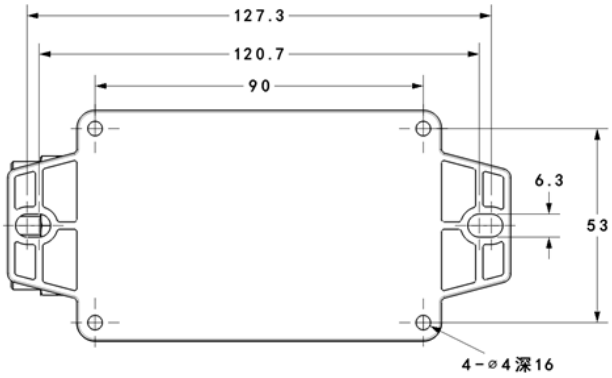
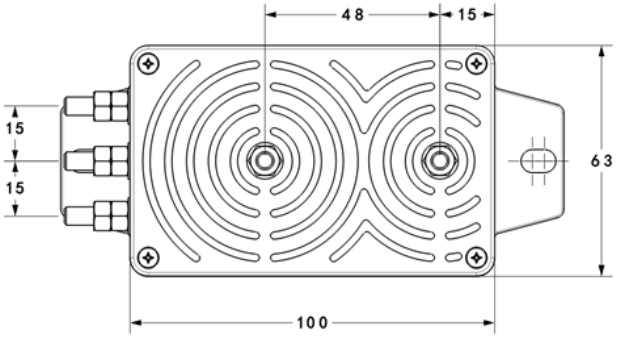
Case Style and Connection

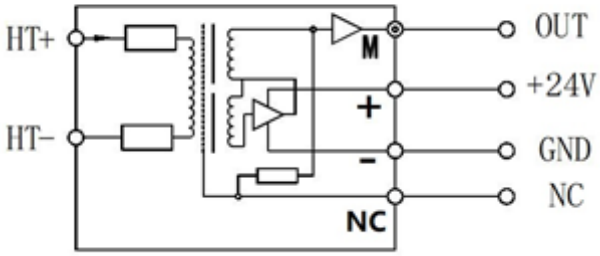








Connection



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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