

Fluxgate Closed Loop Current Sensor CYFGCS200EIH

CYFGCS200EIH is a current sensor based on the fluxgate closed-loop principle, and can be used for measuring DC, AC, pulse and various irregular waveform currents 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	Symbol	Values	Unit
Part number		CYFGCS200EIH	
Rated Input Current (RMS)	I PN	200	A
Current Measuring Range (DC)	lΡ	0~±300	A
Rated Output Current	Isn	200	mA
Turns Ratio	K _N	1:1000	
Measured Resistance (T _A =25°C)	Rм	Vc=±12V IP=±200A 0-12 Vc=±15V IP=±200A 0-25	Ω
Supply Voltage	Vc	±12~±15(±5%)	V
Current consumption (T _A =25°C)	Ιc	V _C =±15V 30+ I _S	mA
Isolation Voltage	Vd	Between input and output 2.5kV rms/50Hz/1 minute	
Transient isolation withstand voltage	Vw	Between input and output, 5kV rms/50Hz/50µs	
Leakage trace index	CTI	600	V
Linearity	٤L	<0.005	%FS
Accuracy (T _A =25°C)	Х	<0.01	%FS
Time Stability	TT	0.2	ppm/month
Power supply immunity	TV	1	ppm/V
Zero-point offset current (T _A =25°C)	lo	T _A =25°C, <±0.1	μA
Thermal drift of offset current	Іот	I _{PN} =0, T _A =-25~+70°C <±10	μA
Following accuracy di/dt	di/dt	>100	A/µs
Response time	Tr	<1	μs
Bandwidth(-3dB)	f	DC~300	kHz
Output Effective		LED on + low level signal (Max 2mA)	
Operating Temperature	TA	-25~+70	°C
Storage temperature	Ts	-25~+85	°C
Enclosure Material		Metal (black insulating oxidized surface)	
Mass (approx.)	m	400	g
Use standard		Q/320115QHKJ01-2016	

Markt Schwabener Str. 8 D-85464 Finsing Germany Version 1 Released in January 2024 Dr.-Ing. habil. Jigou Liu



Chen Yang Technologies GmbH & Co. KG

Case Style and Connection



Pin arrangement:

Pin	1、3、4	2、7	5	6	8	9
definition	0V	NC	-Vc	ls	active indicator	+Vc

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Description of indicator light and indication signal:

Under normal operating conditions, the active indicator is in a constant state. If the indicator is off, it means that the current sensor is in a non-zero flux state, such as the input current exceeds the measuring range. In this case, the sensor internal system runs in scanning state, the output current is no longer proportional to the input current signal. Once the busbar current falls back to within the range, the sensor is back to normal operation. The valid indication signal is driven by the same signal as the indicator, which is in the form of OD gate output, and the output corresponds to a low level when valid.

Application Note

- 1. Incorrect wiring may cause damage to the sensor.
- 2. After the sensor is powered on, the same-phase voltage value can be measured at the output terminal when the measured current passes through the sensor in the direction of the arrow.
- 3. The temperature of the primary busbar or cable should not exceed 100°C.
- 4. The installation and use environment of the sensor should be free of conductive dust and corrosive gases.
- 5. The sensor is a precision device, it should be lightly handled and put away when using and avoid violent vibration or high temperature.