

ZMB16R10DIP Series Hall Current Sensor

Hall current sensor uses Hall effect principle to measure DC, AC, pulse and various irregular waveform currents under the condition that the original and secondary sides are completely isolated.



RoHS



Feature

- Hall effect measurement principle
- Meet UL94-V0 standard

Advantage

- Easy to install
- Low power consumption
- Wide measuring range
- High precision and good linearity
- Low temperature drift
- Strong anti-interference ability
- Strong overload capability

Application

- AC frequency conversion speed control device
- Power filter
- UPS uninterruptible power supply
- SMPS Switched Mode Power Supplies
- Electromagnetic heating
- Power DC screen
- Industrial grade

Performance parameter

Electrical parameters

Rated current rms	I _{pn}	50A	100A	125A	200A
Measuring range	I _{pm}	150A	300A	375A	600A
Turn ratio	N _p /N _s	1:1000	1:2000	1:1000	1:2000
Rated output	I _{sn}	50mA	50mA	125mA	100mA
Coil internal resistance	R _s	30Ω	50Ω	30Ω	50Ω
Max measuring resistance	R _m	(U _c -0.6V)*1000/I _s -R _s			
Supply voltage	U _c	±12V~±15V			
Current consumption	I _c	15mA+I _s			
Insulation voltage	V _d	3kVAC/50Hz/1min			

Dynamic parameter

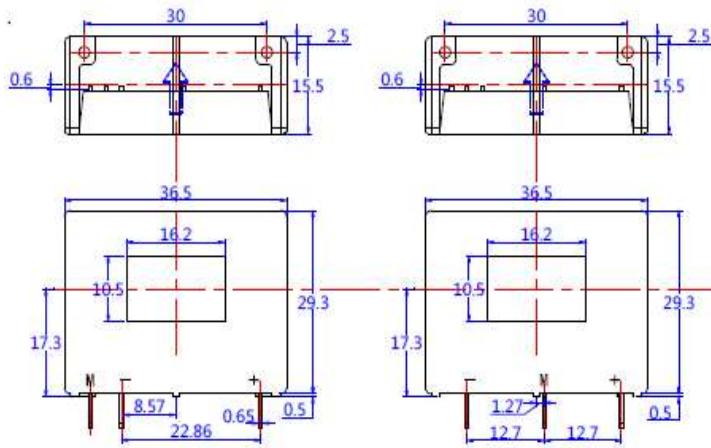
Precision (@I _{pn} , Ta=25°C)	X _G	<±0.5%			
Linearity (@Ta=25°C)	E _r	<±0.1%FS			
Zero offset current (@Ta=25°C, I _p =0)	I _o	<±0.2mA			
Magnetic offset current (I _{pn} >0)	I _{oH}	<±0.1mA			
Zero temperature drift	TCV _{OE}	<±0.005mA/°C			
Response time	T _r	<1us			
Accurately followed	di/dt	>100A/us			
Frequency bandwidth (@-3dB)	BW	DC~200kHz			

General parameters

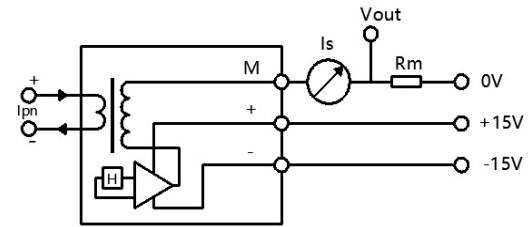
Ambient operating temperature	T _a	-40~+85°C			
Ambient storage temperature	T _s	-55~+125°C			
Weight	m	21g			
Case material		PBT G30/G15 UL94-V0			
Executive standard		EN50178:1998 IEC60950-1:2001 SJ20790-2000			

structure

Unit: mm



Instructions



1. The direction of the current should be the same as the direction of the arrow of the casing;
2. Please refer to the wiring definition on the physical shell, the wrong wiring will damage the module;
3. In order to obtain better dynamic characteristics and sensitivity, it is recommended to use a single turn wire and the wire fills the module through the wire hole best;
4. The primary side wire temperature should not exceed 100 °C;
5. The above parameters are standard specifications, and the products can be customized according to customer needs.