



Closed- Loop Hall AC/DC Current Sensor

LO-DHT52 series current sensor is a closed- loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.



Product Features:

- Excellent accuracy
- Very good linearity
- Optimized response time
- No insertion losses
- High immunity to external interference
- Low temperature drift

Application:

- Photovoltaic equipment
- General Purpose Inverters
- AC/DC Variable Speed Drivers
- Battery Supplied Applications
- Uninterruptible Power Supplies
- Switched Mode Power Supplies

Electric Specifications

Items \ P/N	LO06DHT52	LO15DHT52	LO20DHT52	LO25DHT52	LO50DHT52	LO80DHT52	Unit
Rated input (I _{pn})	6	15	20	25	50	80	A
Measuring range (I _p)	6.6	16.5	22	27.5	55	88	A
Secondary turns	1200±1	1500±1	1000±1	1250±1	1000±1	1200±1	T
Secondary DCR	40	45	25	25	20	36	Ω
Load resistor	100±0.1%	50±0.1%	25±0.1%	25±0.1%	10±0.1%	7.5±0.1%	Ω
Rated output Voltage (V _{sn})	±2.0±0.5% @ I _p =±I _{pn}						V
Zero voltage	2.5±0.4% @ I _p =0						V
Supply voltage	+5.0±5%						V
Power consumption current	≤15+I _p /N _s						mA
Offset voltage drift	≤±0.1 @-40-+105°C						mV/°C
Output voltage drift	≤±0.1 @-40-+105°C						mV/°C
Linearity	≤0.1 @I _p =0-±I _{pn}						%FS
Total precision	≤±0.7						%FS
Response time	<1.0 @I _p =I _{pn} 50A/us,10%-90%						us
Band width	DC-100 @-1dB						KHz
Dielectric strength	AC2.5KV 50Hz 60s						KV

Instructions

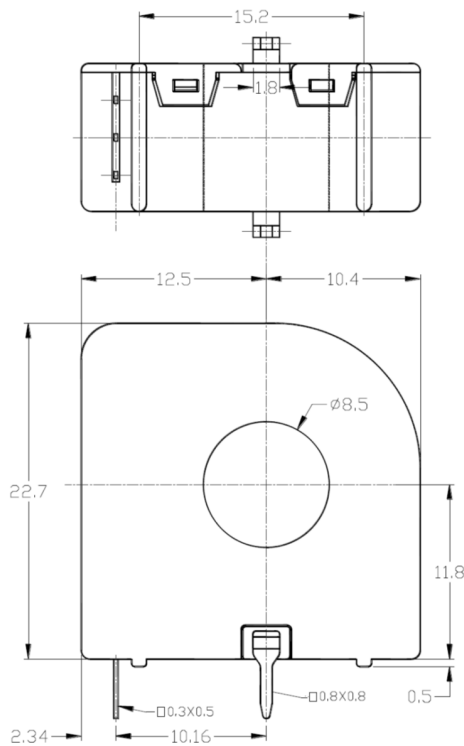
1. Incorrect wiring may cause the damage of sensor.
2. When the measured current through the center hole of the sensor, the current will be measured at the output end.
3. The dynamic performance (di/dt and the response time) is the best when the primary hole is fully filled with the bus bar.
4. User can adjust the output extent of sensor if necessary.
5. Rated input current and output voltage of sensor can be customized.

Standards

- IEC61010-1
- EN50178
- IEC61800-5-1
- UL94V-0
- RoHS Reach

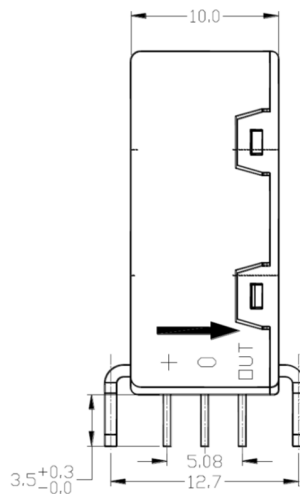
Operating Conditions			
	Value	Unit	Symbol
Operating temperature	-40°C~+105°C	°C	TA
Storage temperature	-40°C~+125°C	°C	TA
Weight(Appro)	9.0	g	M

Dimensions:



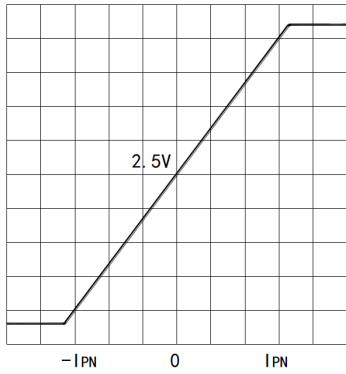
Terminal Pin Identification

- +..... +5V
- 0..... 0V
- OUT.....Output

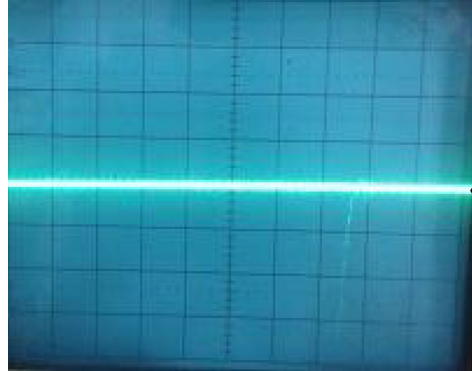


Output signal performance:

Primary Current (I_p)--Output
+5V



Input current/Output voltage plot



Output voltage

Immunity to impulse voltage interference

Principle of operation:

