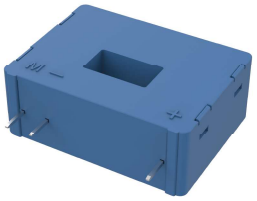
HFCH-L01 CLOSED LOOP CURRENT SENSOR



Features

- Open-loop current sensor based on Hall effect
- Insulated plastic housing: UL94-V0 rated
- Excellent accuracy and very good linearity
- Optimized response time, wide frequency bandwidth
- High immunity to external interference
- PCB Mounting

Applications

Uninterruptible Power Supplies (UPS), Static converters for DC motor drives, AC variable speed drives and servo motor drives, Power supplies for welding

RoHS compliant

SCOPE OF APPLICATION

HFCH-L01 series is suited for the electronic measurement of currents:
DC,AC,pulsed, with galvanic separation between the primary circuit and the secondary circuit.

ELECTRICAL DATA（Ta=25℃）

Parameter	Sym	HFCH-L01/25	HFCH-L01/50	HFCH-L01/75	HFCH-L01/100
Primary nominal rms current	I_{PN}	25A	50A	75A	100A
Primary current,measuring range	I_{PM}	±37.5A	±75A	±100A	±150A
Secondary nominal rms current	I_{SN}	25mA	50mA	50mA	50mA
Turns ratio	N_P/N_S	1:1000	1:1000	1:1500	1:2000
Measuring resistance@I_{PN}	R_M	0-75Ω	0-75Ω	0-75Ω	0-75Ω
Measuring resistance@I_{PM}	R_M	0-50Ω	0-50Ω	0-50Ω	0-50Ω
Electrical offset current	I_{OE}	≤±0.2mA@I_P=0,T=25℃			
Linearity error	εL	<±0.1%@I_{PN}			
Accuracy	X	≤±0.4%@I_{PN}			
Response time @10% of I_{PN}	Tra	＜500ns			
Response time@90% of I_{PN}	Tr	＜1μs			
Temperature coefficient of I_{OUT}	I_{OT}	≤±0.4mA(-40℃~+85℃)			
Supply voltage(±5%)	V_C	±15V			
Current consumption@±15V	I_C	<10mA+I_{SN}			
Frequency bandwidth(-3dB)	BW	DC---100kHz			
Operating temperature	T_A	-40℃~+85℃			
Storage temperature	T_S	-40℃~+90℃			
Mass	m	Approx.38g			
Operating altitude	—	≤2000m			
Humidity	—	≤95%			

INSULATION COORDINATION

Insulation resistance	R_{INS}	DC500V,>1000MΩ
Insulation strength	U_d	2.5kVa.c.,50/60Hz,1min
Impulse withstand voltage 1.2/50 μs	V_{NI}	8 KV
Clearance	d_{CI}	7.9 mm
Creepage distance	d_{CP}	11.4 mm

Notes：1) Connected according to the connection requirements.
2) Temperature of the primary conductor should not exceed 100℃.
3) I_{OUT} is positive when I_P flows in the direction of the arrow.

ORDERING INFORMATION

	HFCH	-L	01	/□□□	-C	□□□	-D	15	(XXX)

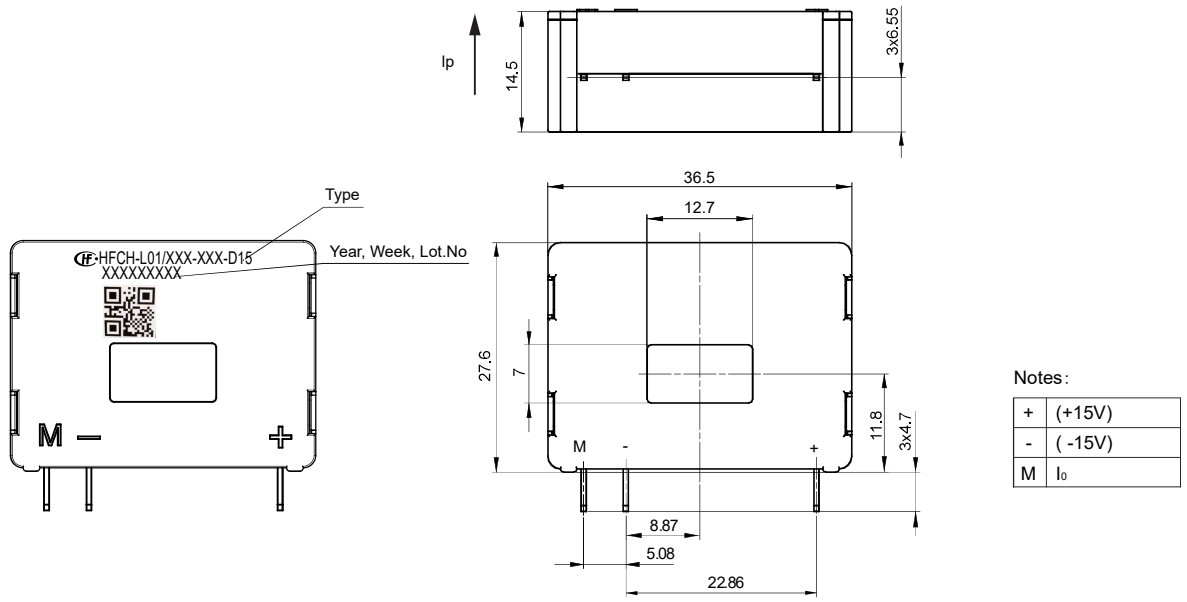
Product Part NO.	**CH:** Hall effect sensor
Working Principle	**L:** Closed Loop Sensor
Sequence number	**01:** 01
Nominal current	**25:** 25A **50:** 50A **75:** 75A **100:** 100A
Output method	**C:** Current signal
Typical output value	**25:** 25mA **50:** 50mA
Operating Voltage Mode	**D:** Dual power supplies
Typical operating voltage	**15:** 15VDC
Special code[1)]	**XXX:** Customer special requirement

Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS, WIRING DIAGRAM

Unit: mm

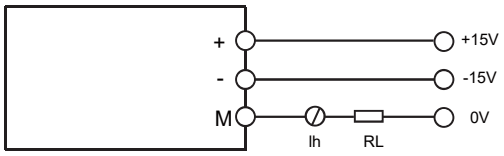
Outline Dimensions



Notes:

+	(+15V)
-	(-15V)
M	I_0

Wiring Diagram



NOTES:

1) To avoid using current transformer under strong magnetic field, the external magnetic field will cause the accuracy of current transformer to change.
2) We could not evaluate all the performance and all the parameters for every possible application field and environment.Thus the user should be in a right position to choose the suitable produce for their own application.If there is any query,please contact HPT for the technical service.However,it is the use's responsibility to determine which product should be used only.
3) Operating temperature range in this specification refers to the maximum tolerable temperature range under specific load conditions.
4) To maintain the performances of current transformers, please do not make the current transformer drop or be shocked strongly.
5) All the performance data listed in the datasheet are the initial values tested under standard testing condition.
6) HPT reserves the right to change the product, the customer should confirm this specification before placing the order for the first time, may request us to provide the new specification if necessary.

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