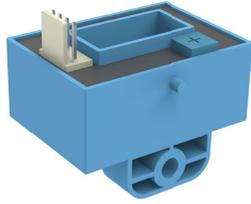


# HFCH-L02

# CLOSED LOOP HALL-EFFECT CURRENT SENSOR



### Features

- Excellent accuracy and very good linearity
- Optimized response time, wide frequency bandwidth
- High immunity to external interference

### Applications

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

## SCOPE OF APPLICATION

HFCH-L02 family 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°C)

Parameter	Sym	HFCH-L02/25	HFCH-L02/50	HFCH-L02/100	HFCH-L02/200	HFCH-L02/300
Primary nominal rms current	$I_{PN}$	25A	50A	100A	200A	300A
Primary current,measuring range	$I_P$	±50A	±100A	±200A	±400A	±600A
Secondary nominal rms current	$I_{SN}$	25mA	50mA	50mA	100mA	100mA
Turns ratio	N	1:1000	1:1000	1:2000	1:2000	1:3000
Measuring resistance@ $I_{PN}$	$R_M$	0-200Ω	0-100Ω	0-100Ω	0-50Ω	0-50Ω
Measuring resistance@ $I_{PM}$	$R_M$	0-100Ω	0-50Ω	0-50Ω	0-20Ω	0-20Ω
Electrical offset current	$I_o$	≤±0.2mA@ $I_P=0$				
Linearity error	$\epsilon_L$	<±0.1%@ $I_{PN}$				
Error	X	≤±0.4% @ $I_{PN}$				
Response time	$T_r$	1μs max				
Temperature coefficient of $I_o$	$I_{OT}$	≤±0.4mA (-40°C ~ 85°C)				
Supply voltage	$V_c$	±15V DC±5%				
Current consumption	$I_c$	< 10mA+ $I_{SN}$				
Frequency bandwidth (-3dB)	BW	DC---100kHz				
Operating temperature	$T_A$	-40°C ~ +85°C				
Storage temperature	$T_s$	-40°C ~ +85°C				

## 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	$d_{Cl}$	4.4 mm
Creepage distance	$d_{CP}$	7.3 mm

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



HONGFA CURRENT TRANSFORMER  
ISO9001 CERTIFIED

2024 Rev. 1.00

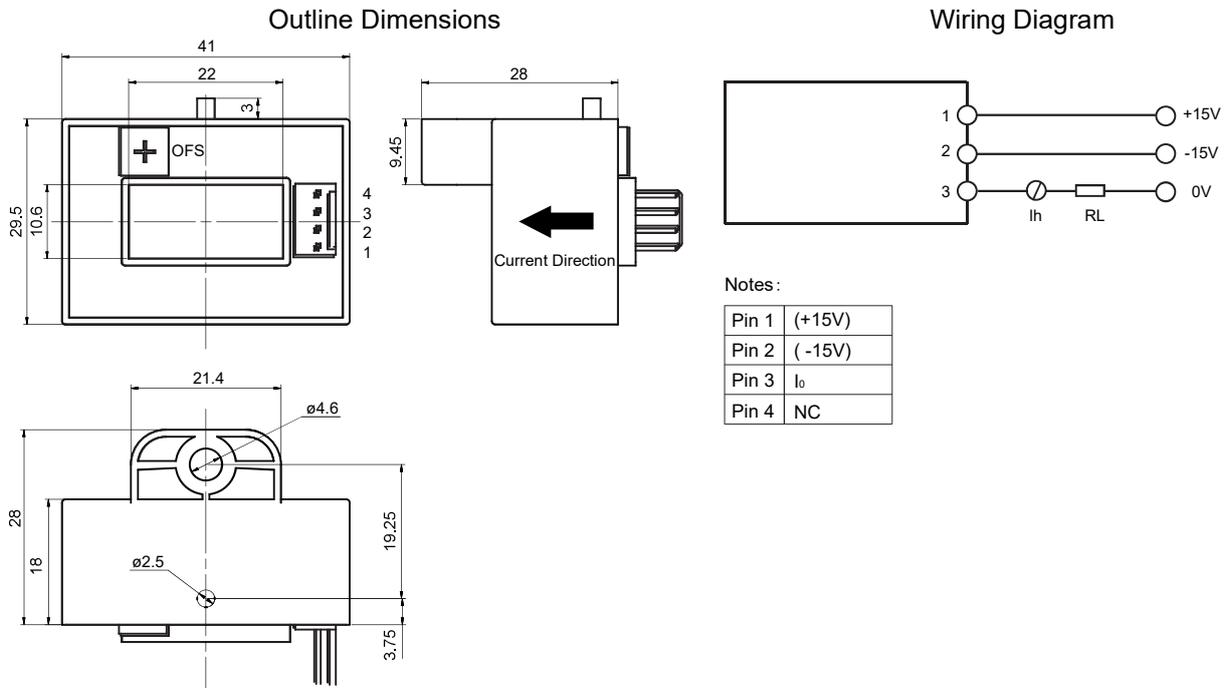
## ORDERING INFORMATION

<b>Product Part NO.</b>	HFCH	-L	02	□□□	-C	□□□	-D	15	(XXX)
<b>Working Principle</b>	CH: Hall effect sensor								
<b>Working Principle</b>	L: Closed Loop Sensor								
<b>Sequence number</b>	02: 02								
<b>Nominal current</b>	25: 25A 50: 50A 100: 100A 200: 200A 300: 300A								
<b>Output method</b>	C: Current signal								
<b>Typical output value</b>	25: 25mA 50: 50mA 100: 100mA								
<b>Operating Voltage Mode</b>	D: Dual power supplies								
<b>Typical operating voltage</b>	15: 15VDC								
<b>Special code<sup>1)</sup></b>	XXX: Customer special requirement								

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

## OUTLINE DIMENSIONS, WIRING DIAGRAM

Unit: mm



### 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 HKG for the technical service. However, it is the user'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) HKG 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.