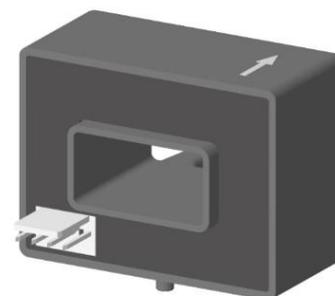


 $I_{pn} = 50 \dots 600A$ 

Representative image only

**Features**

- Used for measurement of electric AC, DC current
- Open loop current sensor
- Pulsed in electric & electronic equipment
- Voltage output
- Panel mounting type
- Plastic outer case complaint to UL94-V0

**Advantage**

- Good linearity
- Low power consumption

**Applications**

- Used for measurement of electric AC, DC current
- Pulsed in electric & electronic equipment

**Application domain**

- Commercial
- Industrial

**Standards**

- EN 50178
- UL508\*

**Insulation Characteristics**

Parameters	Symbol	Value	Units
Dielectric strength between primary and secondary terminals, 50 Hz, 60 seconds	$V_d$	3.0	kVrms
Comparative tracking index	CTI	250	V
Insulation resistance at 500 VDC	$R_{is}$	>100	MΩ
Creepage distance		7.00	mm
Clearance distance		4.50	mm

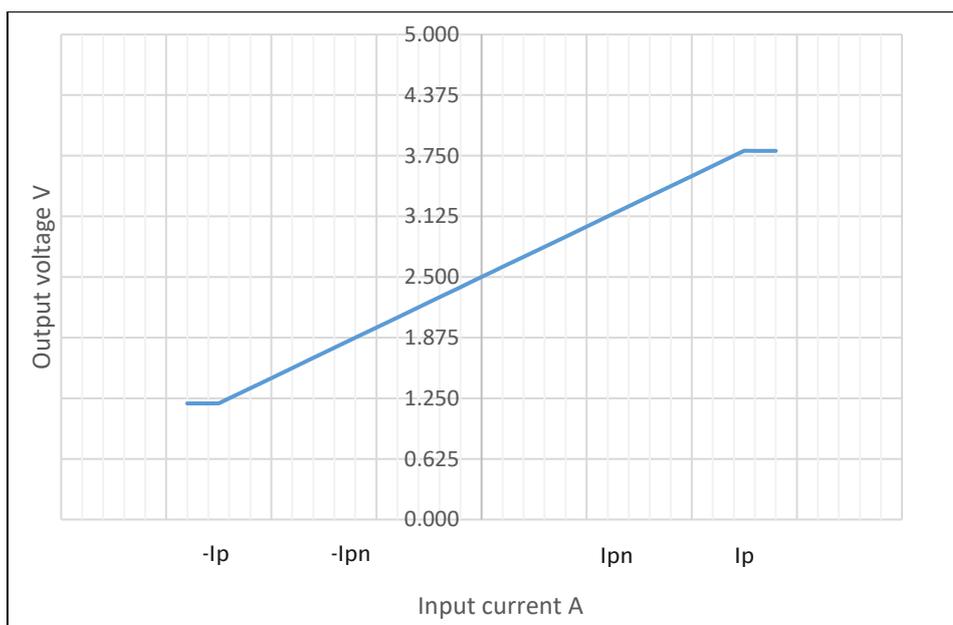
**Product Range**

Product Code	Primary Nominal Current ( $I_{pn}$ )	Primary Measuring Range ( $I_p$ )
HL050T05-CB10	50A	$\pm 100A$
HL100T05-CB10	100A	$\pm 200A$
HL200T05-CB10	200A	$\pm 400A$
HL300T05-CB10	300A	$\pm 600A$
HL600T05-CB10	600A	$\pm 1200A$

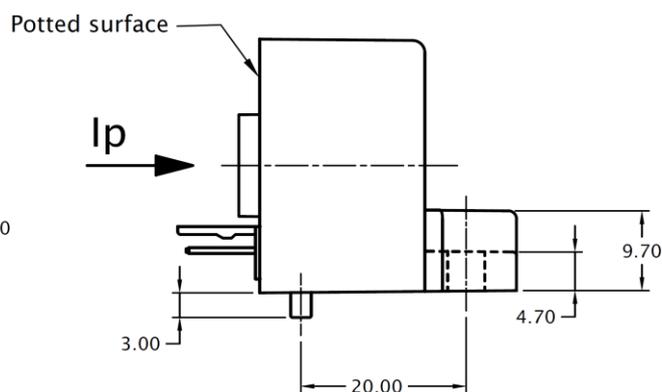
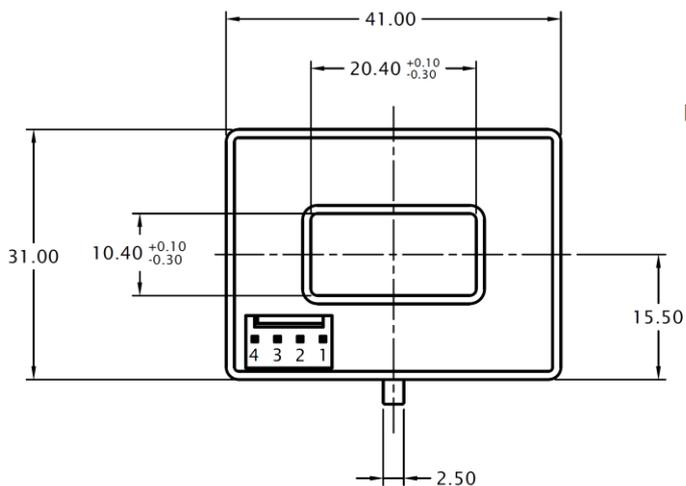
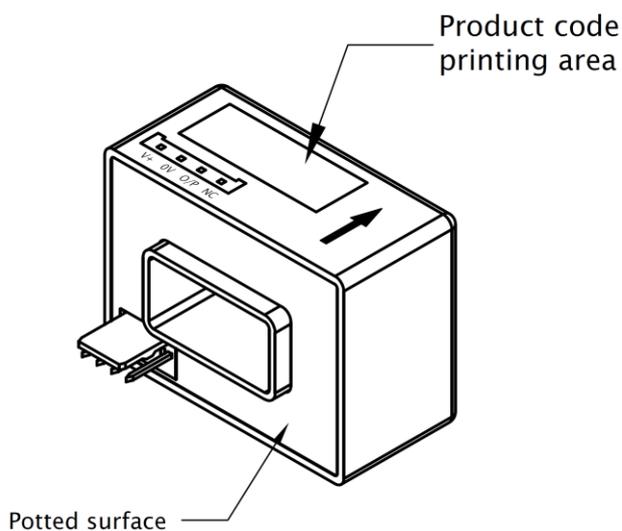
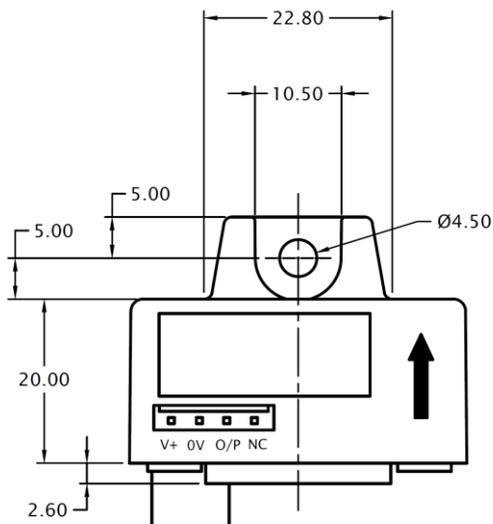
Primary measuring range for momentary only

**Specifications (Unless otherwise specified temperature is 25°C)**

Parameters	Symbol	Condition	Min	Typ	Max	Units
Burden resistance	$R_b$		10			k $\Omega$
Output offset voltage	$V_{off}$	at $I_p = 0$		$2.5 \pm 0.015$		V
Output voltage	$V_{out}$	at $\pm I_{pn}$ , $R_b = 10k\Omega$		$V_{off} \pm 0.625$		V
Supply voltage	$V_s$		4.75	5.00	5.25	V
Current consumption at +5V	$I_c$			18.0		mA
Accuracy at $I_{pn}$ (Excluding offset)	$X_G$			$\pm 1$		%
Linearity error	$\Sigma_L$			$\pm 1$		%
Temperature coefficient of $V_{off}$	$TV_{off}$	-40 to +85 °C		$\pm 0.5$		mV/K
Temperature coefficient of $V_{out}$	$TV_{out}$	-40 to +85 °C		$\pm 0.1$		%/K
Response time at 90% of $I_{pn}$	$t_r$			10		$\mu s$
Frequency bandwidth	BW	-3dB, small signal bw	DC		20	kHz
di/dt accurately followed	di/dt			>50		A/ $\mu s$
Ambient operating temperature	$T_A$		-40		+85	°C
Ambient storage temperature	$T_S$		-40		+85	°C
Mass	m			70		g

**Input & Output Characteristics**

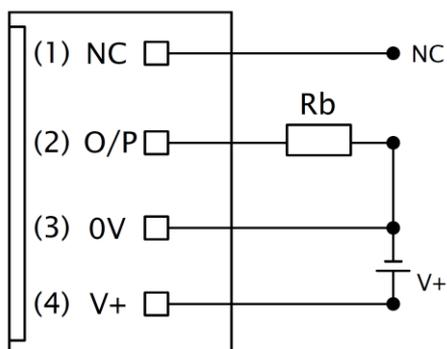
**Mechanical dimensions**



Tolerance unless otherwise specified

0.5 up to 3 in mm	> 3 up to 6 in mm	> 6 up to 30 in mm	> 30 up to 120 in mm	> 120 up to 315 in mm	> 315 up to 1000 in mm	ALL DIMENSIONS ARE IN 'mm'	
± 0.20	± 0.30	± 0.50	± 0.80	± 1.20	± 2.0	SCALE -NTS	

**Connection Diagram**



- Connector on the product: Connector header, part no-22-04-1041, Molex
- Suggested mating connector: Connector housing, part no-22-01-1042, & corresponding pin part no: 08-50-0114, Molex
- Sensor mounting: Hole Ø 4.5mm, M4 steel screws, recommended fastening torque 3 N-m
- It is recommended to centrally locate the current carrying conductor or completely fill the central opening for optimum performance
- Output increases when current ( $I_p$ ) flows in the direction of arrow
- Ensure proper connection of power supply to avoid damage to the sensor
- \* Designed to meet UL508

## Safety



- This Sensor must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.



- Caution, risk of electrical shock
- When operating the Sensor, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply).
- Ignoring this warning can lead to injury and/or cause serious damage.
- A protective housing or additional shield could be used
- Disconnecting the main power must be possible
- Over currents ( $\gg I_{PN}$ ) can cause an additional voltage offset due to magnetic remanence.
- The temperature of the primary conductor shall not exceed 100 °C.
- This Sensors may only be used in electrical or electronic systems which fulfil the relevant regulations (Standards, EMC Requirements)
- Protect non-isolated high-voltage current carrying parts against direct contact (e.g. with a protective housing)
- When installing the sensor, ensure that the safe separation (between primary circuit and secondary circuit) is maintained over the whole circuits and their connections.

## General information:

Electrohms reserves the right to make modifications on products for improvements without prior notice