

### Features

- Split core type
- Open loop current sensor
- Voltage output
- Panel mounting type

### Advantage

- Good linearity
- No insertion losses
- Low power consumption

### Applications

- Used for measurement of electric 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, 50Hz, 60 seconds	$V_d$	3.0	kV
Comparative tracking index	CTI	250	
Insulation resistance at 500 VDC	$R_{IS}$	>100	MΩ
Creepage distance		23.80	mm
Clearance distance		22.60	mm

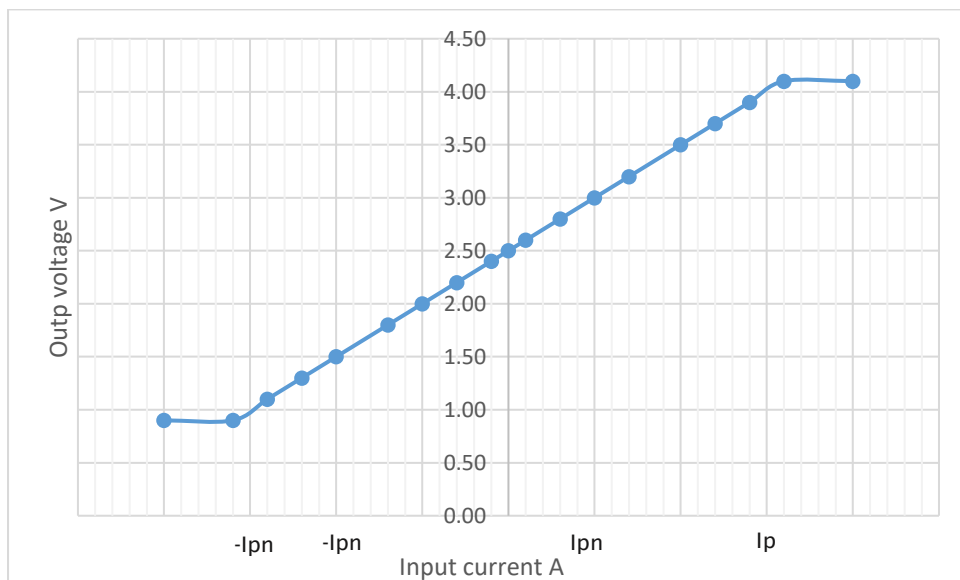
**Product Range**

Product code	Primary nominal current ( $I_{pn}$ )	Primary measuring range ( $I_p$ )
HJ050T02	50A	$\pm 100A$
HJ100T02	100A	$\pm 200A$
HJ200T02	200A	$\pm 400A$

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

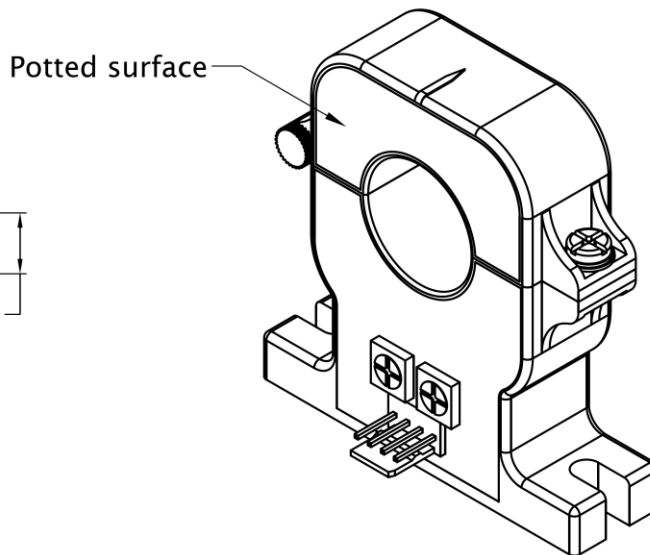
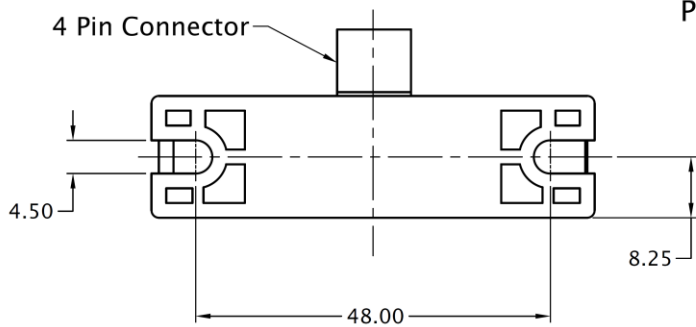
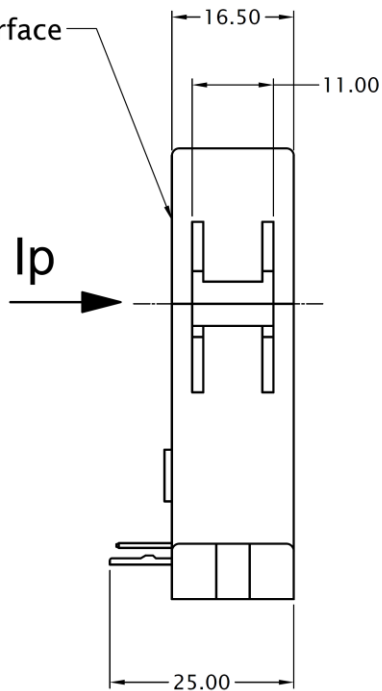
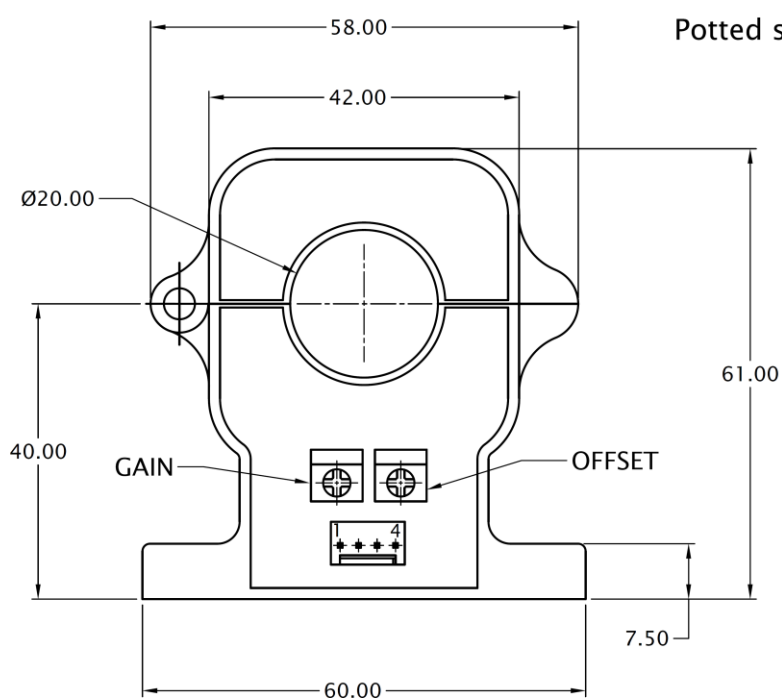
Parameters	Symbol	Condition	Min	Typ	Max	Units
Burden resistance	$R_b$		10			$k\Omega$
Output offset voltage	$V_{off}$	at $I_p = 0$		$2.5 \pm 0.025$		V
Reference voltage	$V_{ref}$			$2.5 \pm 0.025$		V
Output voltage	$V_{out}$	at $\pm I_{pn}$ , $R_b = 10k\Omega$ ,		$2.5 \pm 1.0$		V
Supply voltage ( $\pm 5\%$ )	$V_s$			+5.0		V
Current consumption at +5V	$I_c$			18		mA
Accuracy at $I_{pn}$ (Excluding offset)	$X_G$			$\pm 2$		%
Linearity error	$\Sigma_L$	-25 to +85 °C		<1.0		%
Temperature coefficient of $V_{out}$	$TV_{out}$	-25 to +85 °C		$\pm 0.1$		%/k
Reaction time at 90% Of $I_{pn}$	$T_{ra}$			---		
Frequency bandwidth at -3db di/dt accurately followed	BW di/dt		DC		20	kHz
Ambient operating temperature	$T_A$			-25 to +85		°C
Ambient storage temperature	$T_S$			-40 to +100		°C
Mass	m			78		g

**Input & Output Characteristics**

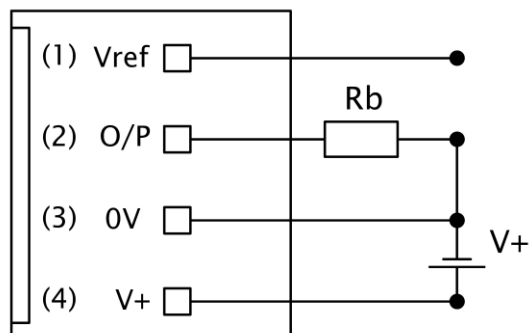


**Mechanical dimensions**

GENERAL TOL. ±0.5 mm	
ALL DIMENSIONS ARE IN 'mm'	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: 2 Slots X 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

### 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.
- 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 must be used in electrical or electronic systems as per the applicable standards.
- 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 the reserves right to make modifications on products for improvements without prior notice.