

$I_{pn} = 50 \dots 200A$



Representative image only

**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**

- Industrial

**Standards**

- UL508\*
- EN50178 (IEC 62477)

**Insulation Characteristics**

Parameters	Symbol	Value	Units
Dielectric strength between primary and secondary terminals,50Hz, 60 seconds	$V_d$	3.0	kVrms
Comparative tracking index	CTI	>250	V
Insulation resistance at 500 VDC	$R_{IS}$	>100	MΩ
Creepage distance		23.80	mm
Clearance distance		22.60	mm

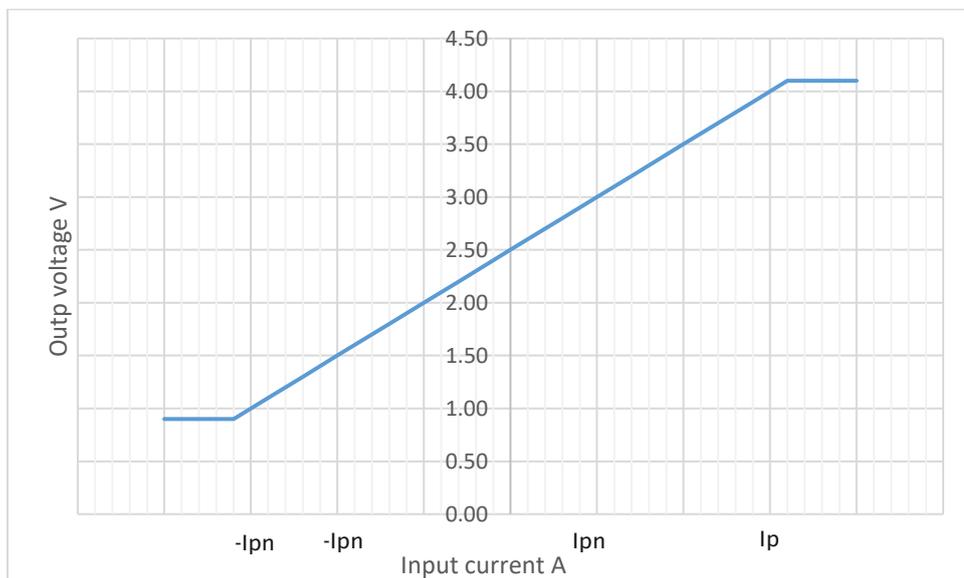
### Product Range

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

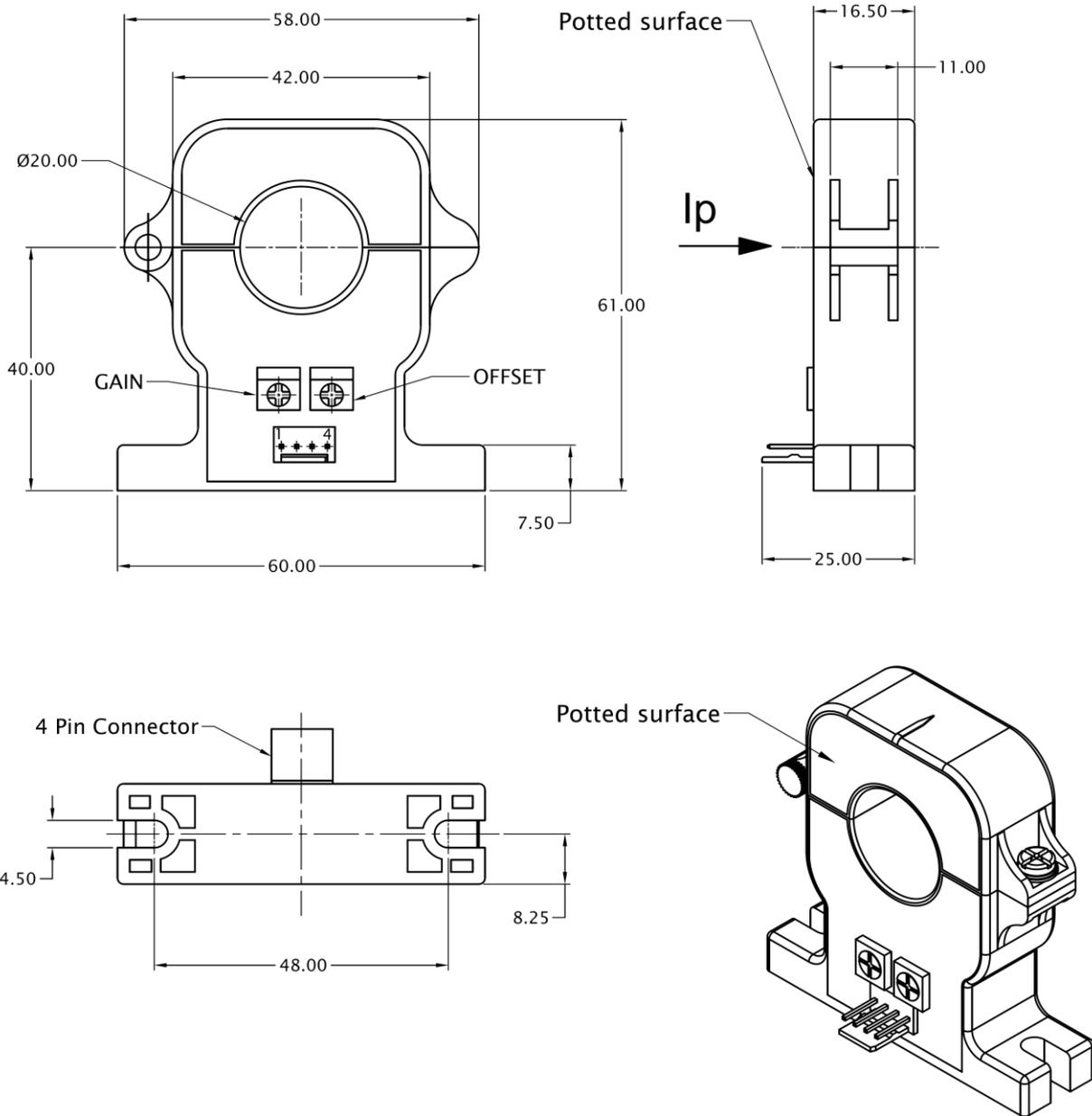
### Specifications (Unless otherwise specified temperature is 25°C)

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	$V_s$	$\pm 5\%$		+5.0		V
Current consumption	$I_c$	$V_s = 5V$		18		mA
Accuracy at $I_{pn}$ (Excluding offset)	$X_G$		-2		+2	%
Linearity error	$\Sigma_L$	-25 to +85 °C	-1.0		+1.0	%
Temperature coefficient of $V_{out}$	$TV_{out}$	-25 to +85 °C	-0.1		+0.1	%/k
Reaction time at 90% Of $I_{pn}$	$T_{ra}$			---		---
Frequency bandwidth	BW	-3dB		---		---
di/dt accurately followed	di/dt			---		---
Ambient operating temperature	$T_A$		-25		+85	°C
Ambient storage temperature	$T_S$		-40		+100	°C
Mass	m			78		g

### Input & Output Characteristics



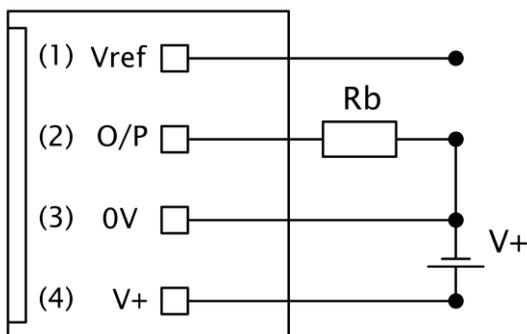
**Mechanical dimensions**



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 400 in mm	>400 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**



## General information

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

## 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.