

$I_{pn} = 75A, 1000A$ 

Representative image only

Features

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

Advantage

- Good linearity
- 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, 50 Hz, 60 seconds	V_d	2.5	kVrms
Comparative tracking index	CTI	600	V
Insulation resistance at 500 VDC	R_{IS}	>100	MΩ
Creepage distance		52.5	mm
Clearance distance		38.0	mm

Specifications (Unless otherwise specified temperature is 25°C)

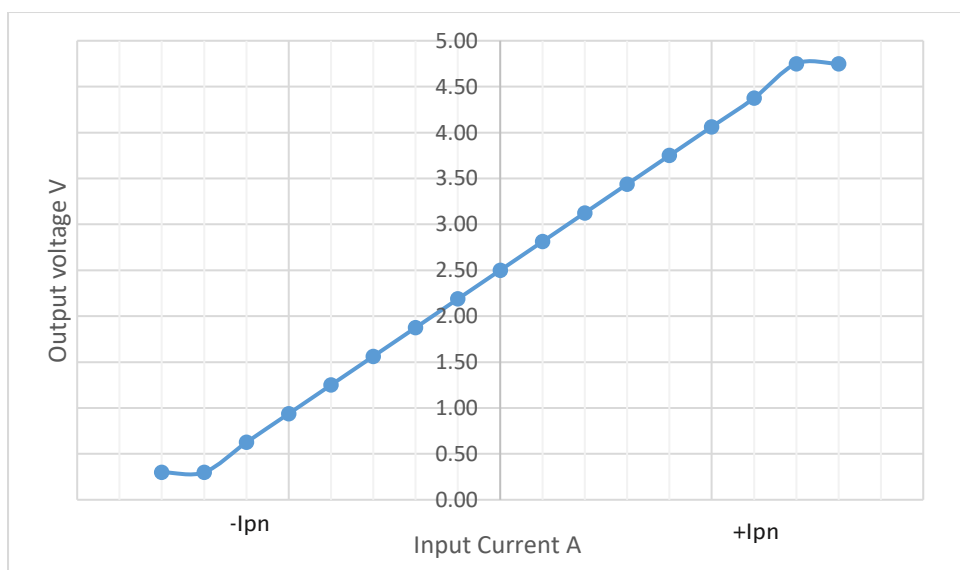
Parameters	Symbol	Condition	Min	Typ	Max	Units
Burden resistance	R_b		10			$k\Omega$
Supply voltage	V_s		4.75	5.00	5.25	V
Current consumption at +5V	I_c			28.0		mA
Accuracy at I_{pn} (Excluding offset)	X_G	$V_s=5V$		± 1		%
Linearity error	Σ_L	$V_s=5V$		± 1		%
Temperature coefficient of V_{off}	TV_{off}	-40 to +85 °C		± 0.5		mV/K
Temperature coefficient of V_{out}	TV_{out}	-40 to +85 °C		± 0.1		%/K
Response time at 90% of I_{pn}	t_r			---		--
Frequency bandwidth di/dt accurately followed	BW di/dt	-3dB, small signal bw	DC		70	Hz
Ambient operating temperature	T_A		-40		+125	°C
Ambient storage temperature	T_S		-40		+125	°C
Mass	m			150		g

Channel 1

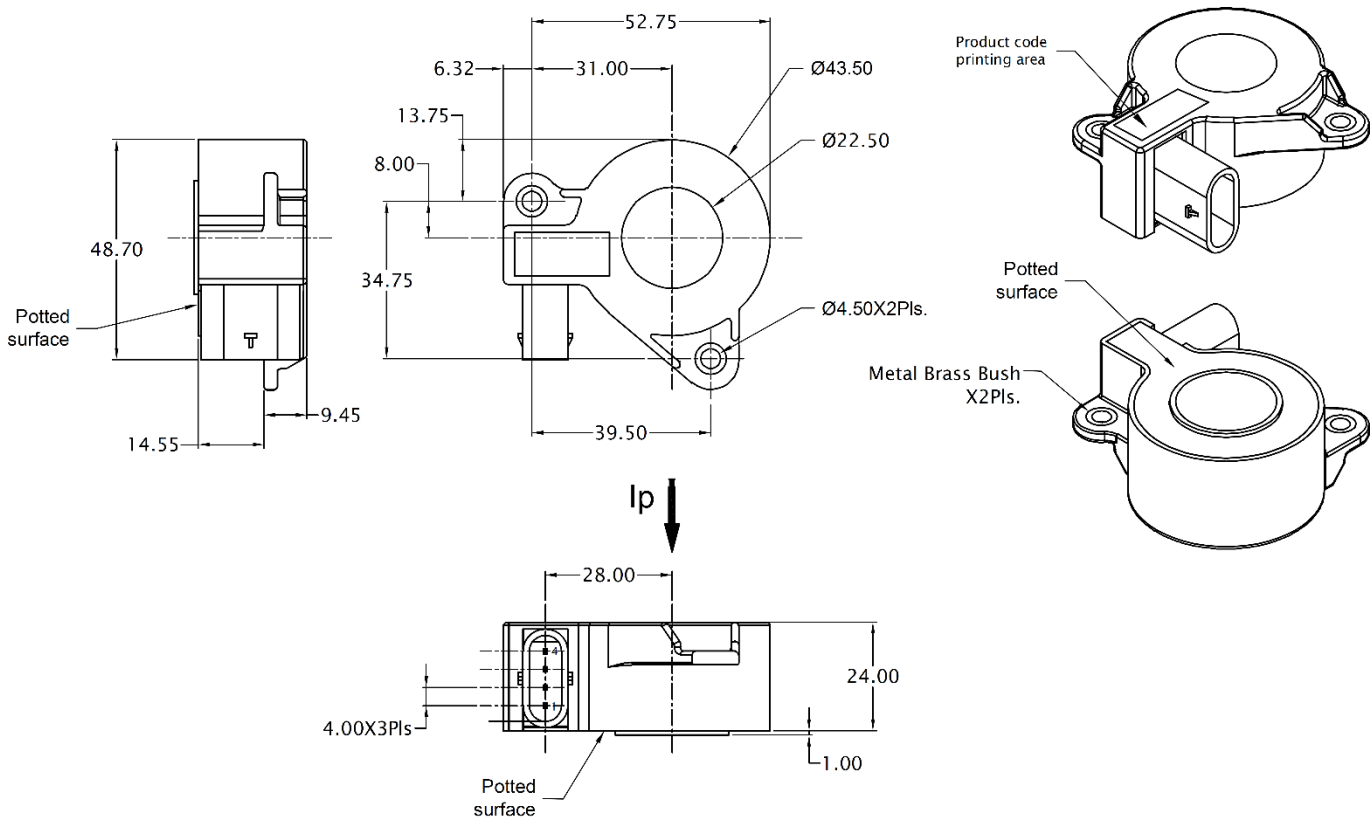
Parameters	Symbol	Condition	Min	Typ	Max	Units
Primary Nominal Current	I_{pn}			75		A
Primary Measuring Range	I_p		-75		+75	A
Output offset voltage	V_{off}	at $I_p = 0$		$V_s/2$		V
Output voltage 1	V_{out}	at $\pm I_{pn}$, $V_s=5V$, $R_b=10k\Omega$		$V_{off} + 2.0$		V
Output sensitivity	V_{sens}			26.67		mV/A

Channel 2

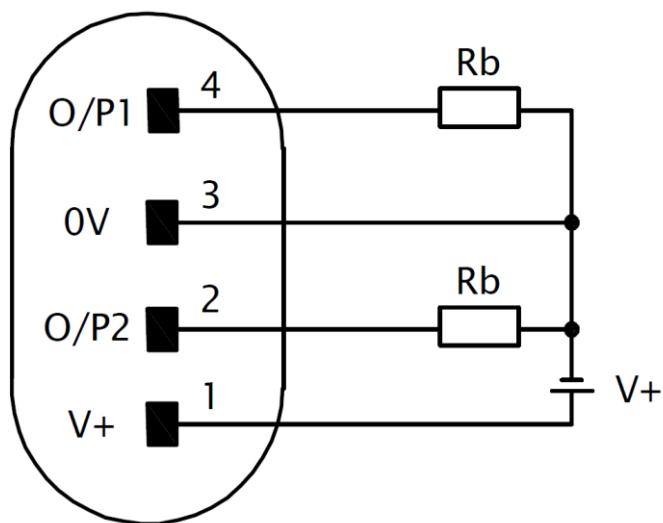
Parameters	Symbol	Condition	Min	Typ	Max	Units
Primary Nominal Current	I_{pn}			1000		A
Primary Measuring Range	I_p		-1000		+1000	A
Output offset voltage	V_{off}	at $I_p = 0$		$V_s/2$		V
Output voltage 2	V_{out}	at $\pm I_{pn}$, $V_s=5V$, $R_b=10k\Omega$		$V_{off} + 2.0$		V
Output sensitivity	V_{sens}			2.0		mV/A

Input & Output Characteristics at $V_s=5V$


Mechanical dimensions



Connection Diagram



- Suggested mating connector: Connector housing, Part no 1-1456426-5, TE connectivity
- 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.