I_{pn} = 1000A

Features
- Plastic outer case compliant to UL 94-V0

Advantage
- Good linearity
- Excellent accuracy
- Low temperature drift
- Wide frequency bandwidth
- Optimized response time
- Current overload capability.

Applications
- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power
- Supplies (Ups)
- Switched Mode Power
- Supplies (SMPS)
- Power suppliers for welding
- applications.

Application domain
- Commercial
- Industrial

Standards
- EN 50178
- UL508

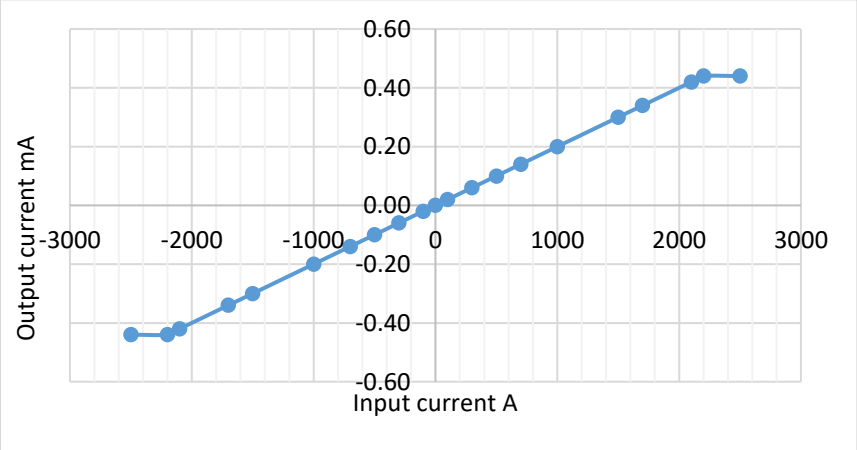
Insulation characteristics

Parameters	Symbol	Value	Unit
Dielectric strength between primary and secondary terminals, 50Hz 60 seconds	V_d	4.0	kVrms
Comparative tracking index	CTI	600	V
Impulse withstand voltage 1.2/50 µs	V_W	14.5	kV
Insulation resistance at 500VDC	R_{IS}	>200	MΩ
Creepage distance		20.5	mm
Clearance distance		19.5	mm

Specifications (Unless otherwise specified temperature is 25°C)

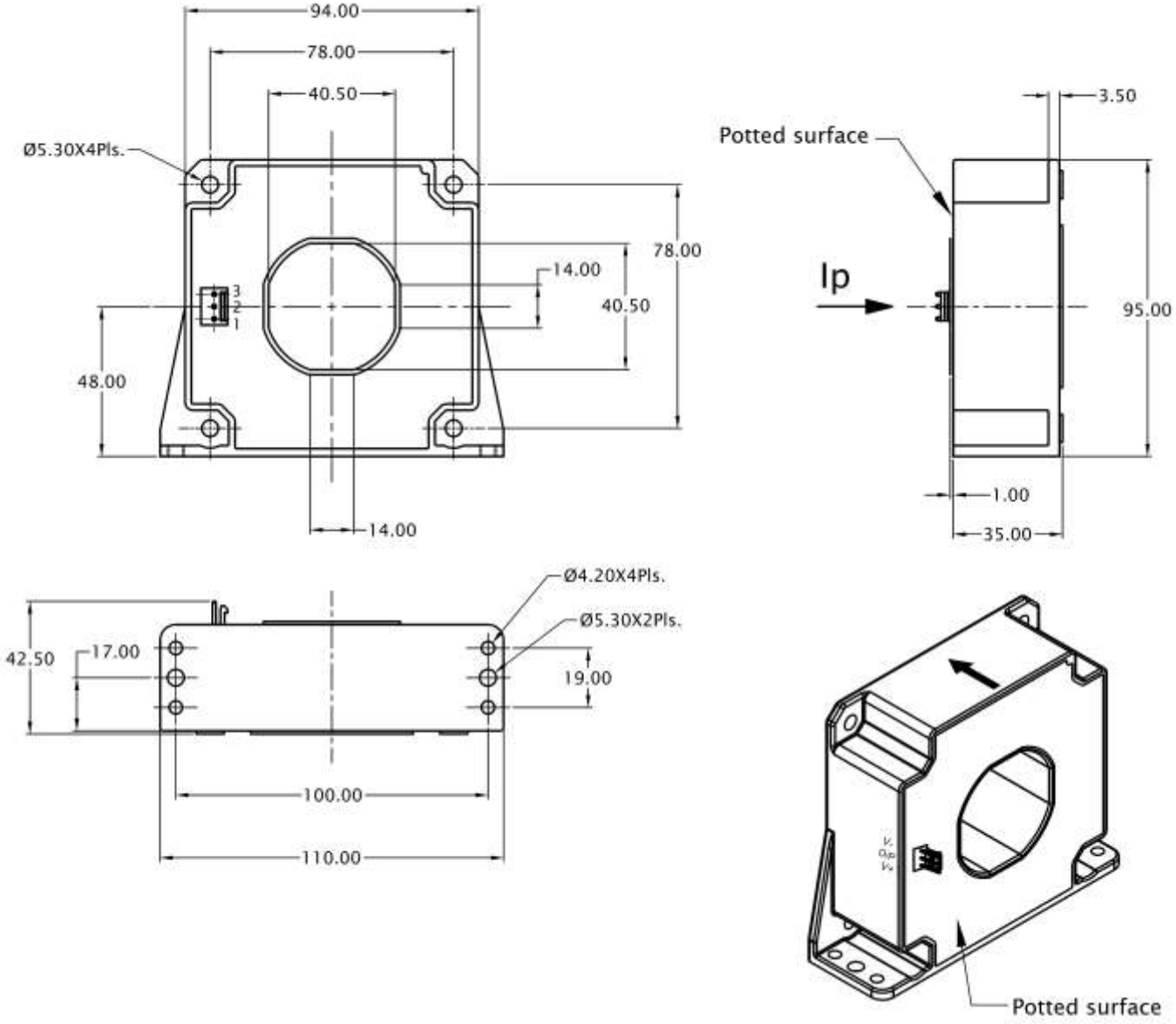
Parameters	Symbol	Conditions	Min	Typ	Max	Units
Input current nominal	I_{pn}			1000		A
Input current measuring range	I_P		-2100		+2100	A
Burden resistance	R_b	With ±15V, ±1000A (max) at 70°C	0		18	Ω
		with ±15V, ±1200A (max) at 70°C	0		7	Ω
		with ±24V, ±1000A (max) at 70°C	5		60	Ω
		with ±24V, ±1500A (max) at 70°C	5		24	Ω
		with ±15V, ±1000A (max) at 85°C	0		15	Ω
		with ±15V, ±1200A (max) at 85°C	0		4	Ω
		with ±24V, ±1000A (max) at 85°C	10		57	Ω
		with ±24V, ±1500A (max) at 85°C	10		21	Ω
		with ±24V, ±2100A (max) at 85°C	1		2	Ω
Resistance of secondary winding	R_S			40		Ω
Output current at I_{pn}	I_{out}			200		mA
Number of secondary turns	N_S			5000		
Theoretical sensitivity	G_{th}			0.2		mA/A
Supply voltage	V_s	± 5%	±15		±24	V
Current consumption	I_C	±24 V		30 + I_{out}		mA
Offset current	I_{Off}		-0.4		+0.4	mA
Variation of I_{Off} wrt temperature	I_{OT}	-10 to +85 °C	-0.5		+0.5	mA
Linearity error	Σ_L			< 0.1		% of I_{pn}
Overall accuracy at I_{pn}	X_G		-0.4		+0.4	% of I_{pn}
Response time at 90% of I_{pn}	t_r	> 100A/µs > 200A/µs		<1.0 <0.5		µs
Frequency bandwidth	BW	-3dB, small signal bw	0		100	kHz
di/dt accurately followed	di/dt			>100		A/ µs
Ambient operating temperature	T_A		-40		+85	°C
Ambient storage temperature	T_S		-50		+90	°C
Mass	m			600		g

Input & Output Characteristics

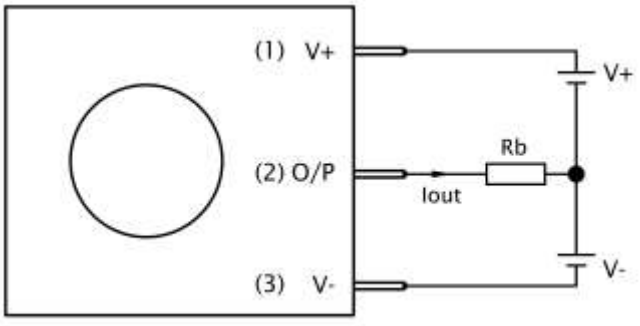


Mechanical dimensions

GENERAL TOL. ±1.0 mm	
ALL DIMENSIONS ARE IN 'mm'	SCALE - NTS



Connection Diagram



- Connector on the product: Connector header, part no- B3P-VH(LF)(SN), JST Mfg.Co.Ltd.
- Suggested mating connector: Connector housing, part no- VHR-3N (3 position housing), & corresponding pin part no: SVH-21T-P1.1, JST Mfg.Co.Ltd.
- Sensor mounting: 4 holes X Ø 4.2mm, M4 steel screws, recommended fastening torque 3 N-m
  2 holes X Ø 5.3mm, M5 steel screws, recommended fastening torque 4 N-m
- It is recommended to centrally locate the current carrying conductor or completely fill the central opening for optimum performance
- Output is positive when current (Ip) 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 equ ipment 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 (»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.

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General information:

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