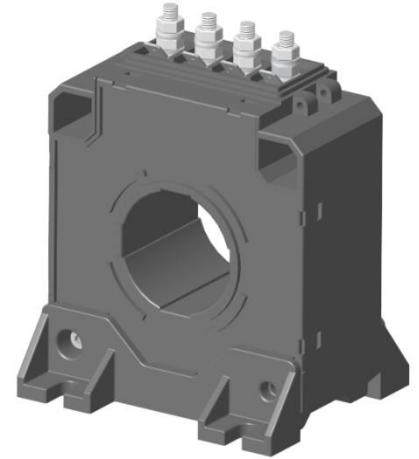


$I_{pn} = 500A_{rms}$ 

Features

- Plastic outer case compliant to UL 94-V0

Advantage

- Very good linearity
- Excellent accuracy
- Low temperature drift
- Wide frequency bandwidth
- Optimized response time
- High immunity to external interference
- No insertion losses
- 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
- Railways

Standards

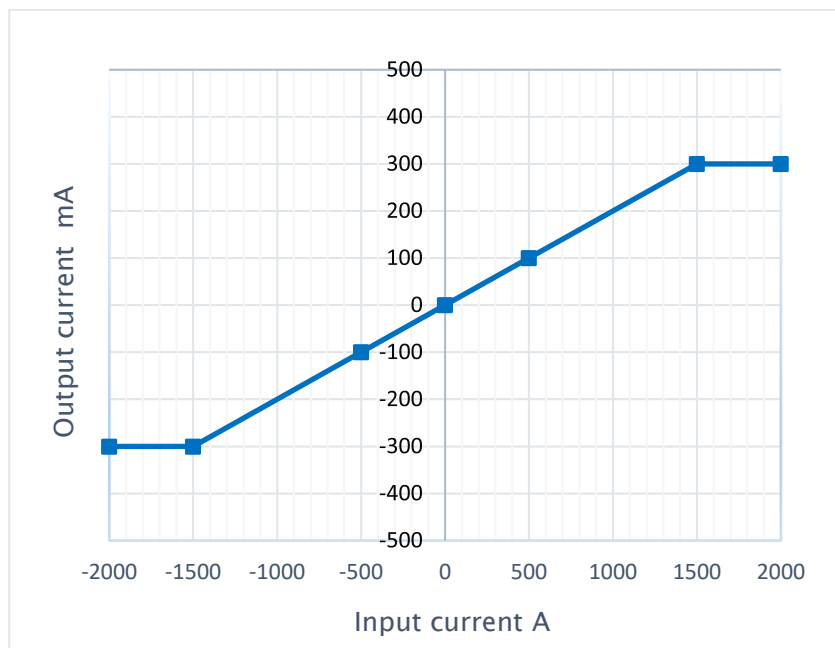
- EN50178
- EN50155
- UL508*

Insulation Characteristics

Parameters	Symbol	Value	Units
Dielectric strength between primary and secondary terminals, 50Hz, 60 seconds	V_d	13.4	kVrms
Dielectric strength between shield and secondary terminals, 50Hz, 60 seconds.	V_d	1.5	kVrms
Comparative tracking index	CTI	250	V
Insulation resistance at 500 VDC	R_{is}	>100	MΩ
Creepage distance		66.50	mm
Clearance distance		45.60	mm

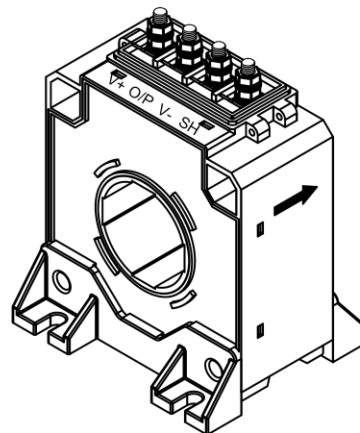
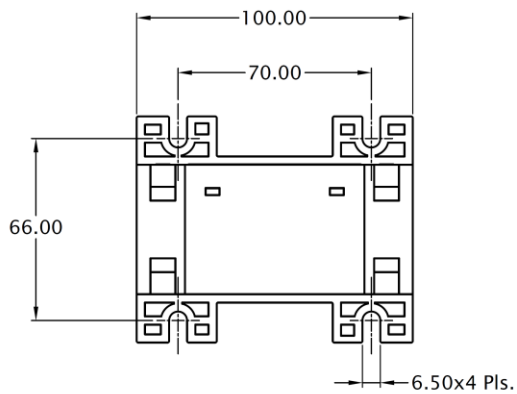
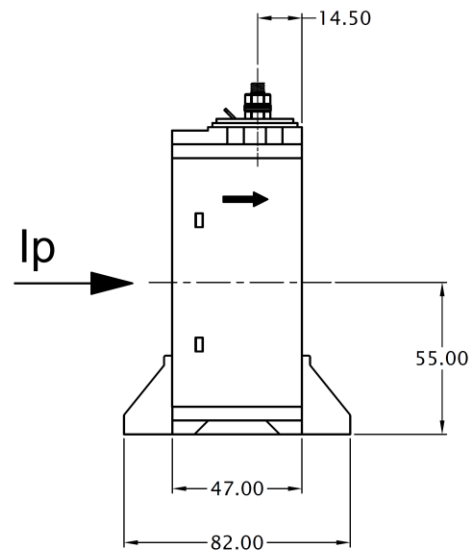
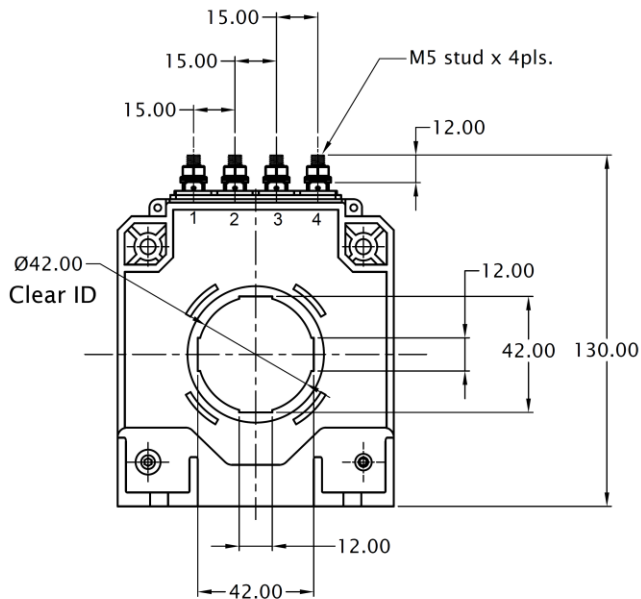
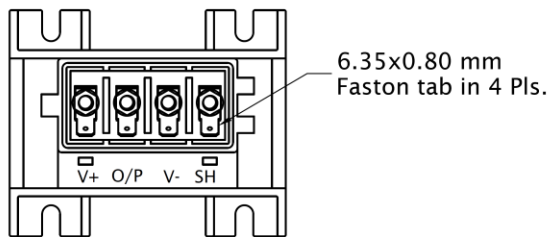
Specifications (Unless otherwise specified temperature is 25°C)

Parameters	Symbol	Conditions	Min	Typ	Max	Units
Input current nominal	I_{pn}			500		Arms
Input current measuring range	I_p		-1500		+1500	A
Burden resistance	R_b	with $\pm 15V$ at $\pm 500A$	0		70	Ω
		with $\pm 15V$ at $\pm 1200A$	0		5	Ω
		with $\pm 24V$ at $\pm 500A$	0		150	Ω
		with $\pm 24V$ at $\pm 1500A$	0		20	Ω
Secondary winding resistance	R_s	at $+85^\circ C$		44		Ω
Output current at I_{pn}	I_{out}			100		mA
Number of secondary turns	N_s			5000		
Theoretical sensitivity	G_{th}			0.2		mA/A
Supply voltage	V_s	$\pm 5\%$	± 15		± 24	V
Current consumption	I_c	$V_s = \pm 24 V$		$35 + I_{out}$		mA
Offset current	I_o		-0.5		+0.5	mA
Temperature variation of I_o	I_{ot}	-40 to $+85^\circ C$	-1.0		+1.0	mA
Linearity error	Σ_L			<0.1		%
Overall accuracy at I_{pn}	X_G		-0.7		+0.7	%
Response time at 90% of I_{pn}	t_r	di/dt of $100 A/\mu s$		<1.0		μs
Frequency bandwidth	BW	-3dB, small signal bw	0		100	kHz
di/dt accurately followed	di/dt			>100		$A/\mu s$
Ambient operating temperature	T_A		-40		+85	$^\circ C$
Ambient storage temperature	T_S		-45		+90	$^\circ C$
Mass	m			1.100		kg

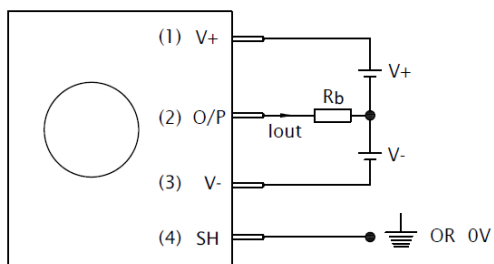
Input & Output Characteristics

Mechanical dimensions

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



Connection Diagram



- Connector on the product: M5 Studs & Faston tab, part no- 61365-1, TE Connectivity AMP connectors
- Suggested mating connector: Faston receptacle terminal, part no- 63609-2, TE Connectivity AMP connectors
- Secondary connection M5 Studs in 4 places, recommended fastening torque 2.2 N-m
- Sensor mounting: 4 slots X Ø 6.5mm, M6 steel screws, recommended fastening torque 4.6 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 (I_p) flows in the direction of arrow
- * 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.
- 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 reserves the right to make modifications on products for improvements without prior notice.