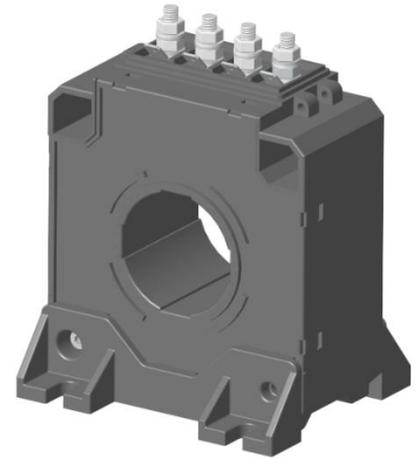


 $I_{pn} = 500A_{rms}$ 

Representative image only

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

Insulation Characteristics

Parameters	Symbol	Value	Units
Dielectric strength between primary and secondary terminals, 50Hz, 60 seconds	V_d	12.0	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

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

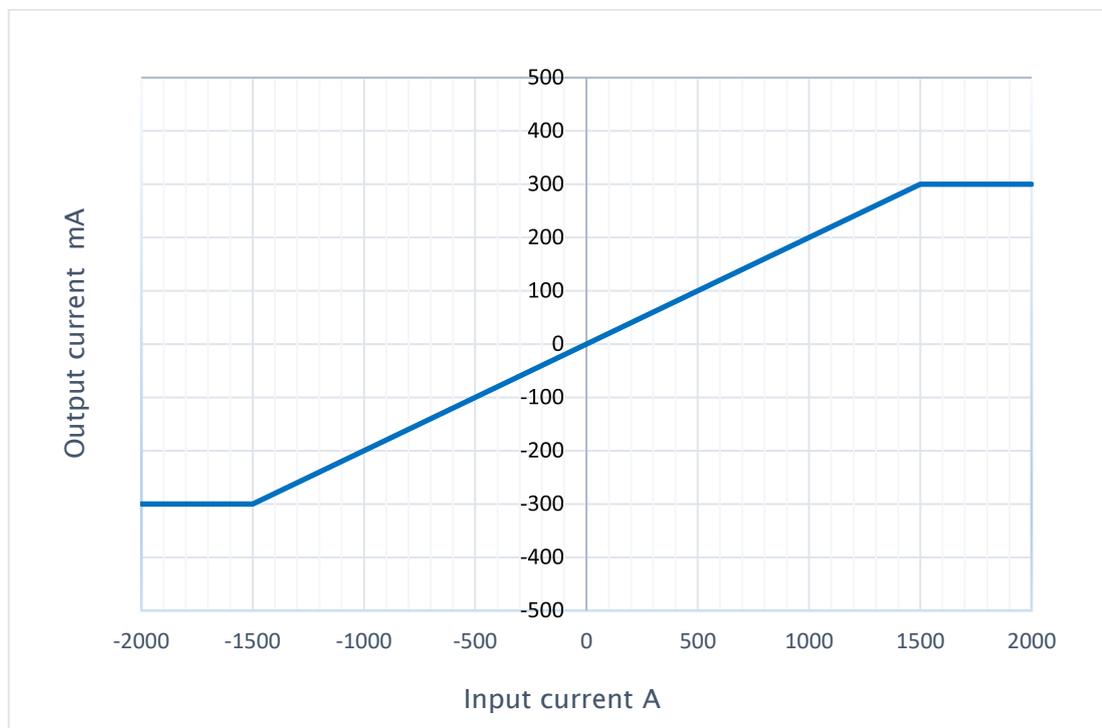
- Industrial
- Railways

Standards

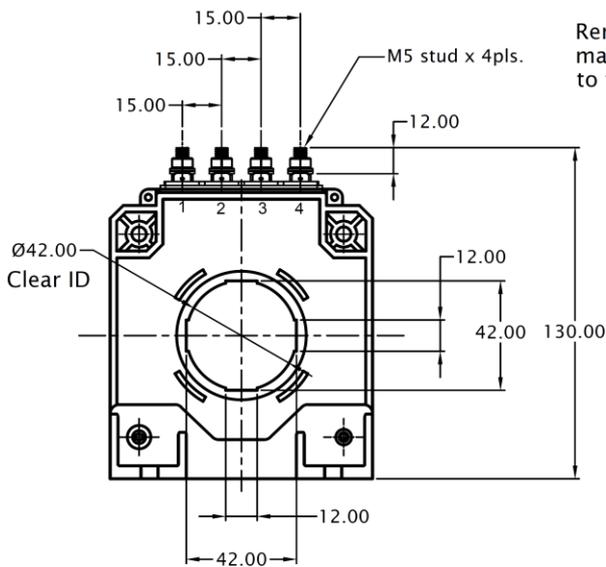
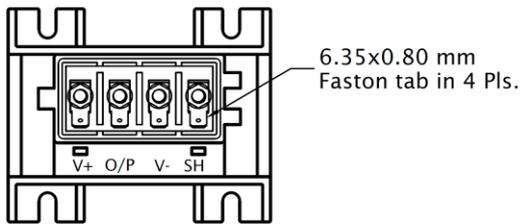
- UL508*
- EN50155
- EN50178 (IEC 62477)

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_{off}		-0.5		+0.5	mA
Variation of I_{off} wrt temperature	I_{ot}	-40 to $+85^\circ C$	-1.0		+1.0	mA
Linearity error	Σ_L		-0.1		+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/ μs		<1.0		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	$^\circ C$
Ambient storage temperature	T_S		-45		+90	$^\circ C$
Mass	m			1.100		kg

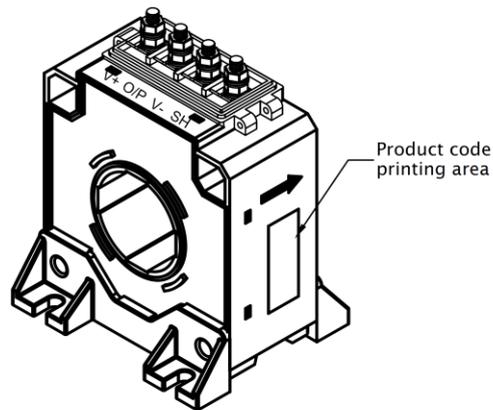
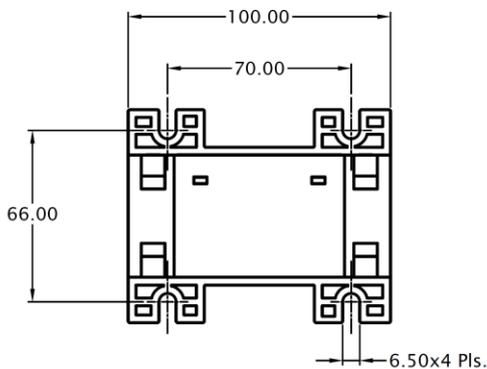
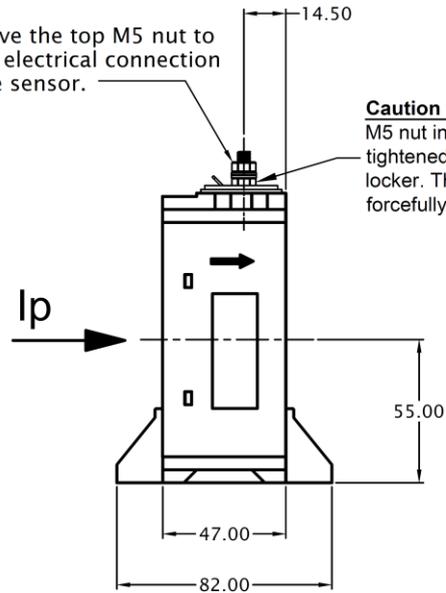
Input & Output Characteristics

Mechanical dimensions



Remove the top M5 nut to make electrical connection to the sensor.

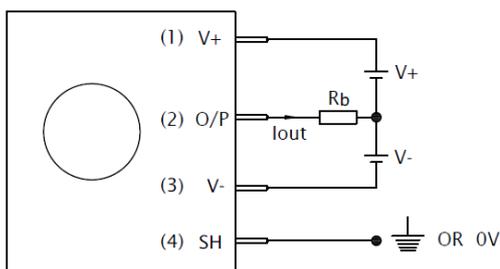
Caution : Do not remove the bottom M5 nut in four places which is firmly tightened by using loctite thread locker. The sensor will be damaged if forcefully removed.



Tolerance unless otherwise specified

0.5 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	± 0.50	± 0.80	± 1.20	± 2.0	SCALE -NTS	

Connection Diagram



General information

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