

Features

- Bipolar and isolated measurement up to 225V
- Current output

Advantage

- Compact design
- Excellent accuracy (offset, sensitivity, linearity)
- Good response time
- Low temperature drift

Applications

- Single or three phase inverters
- Propulsion and braking chopper
- Auxiliary converter
- High power drives
- Substations

Application domain

- Traction
- Industrial

Standards

- EN 50178
- UL508

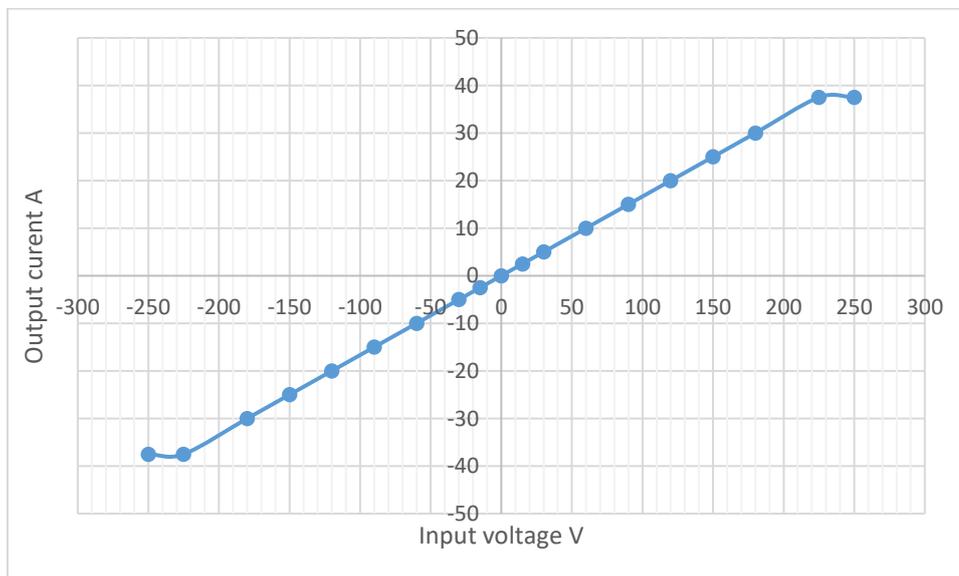
Insulation characteristics

Parameters	Symbol	Value	Units
Dielectric strength between primary and secondary terminals, 50Hz, 60seconds	V_d	4.1	kV
Comparative tracking index	CTI	175	V
Insulation resistance	R_{is}	≥ 100	$M\Omega$
Creepage distance		16.0	mm
Clearance distance		16.0	mm

Specifications (Unless otherwise specified temperature is 25°C)

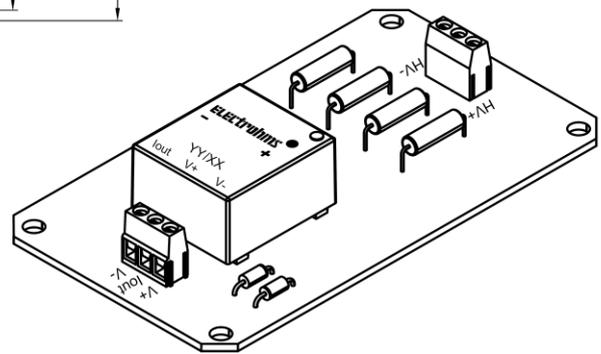
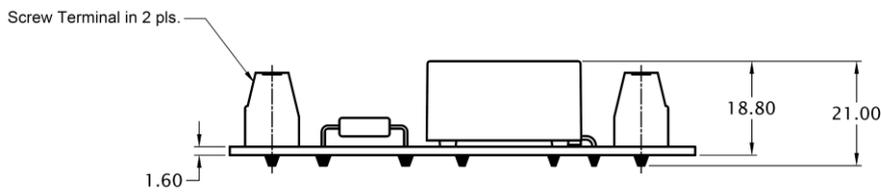
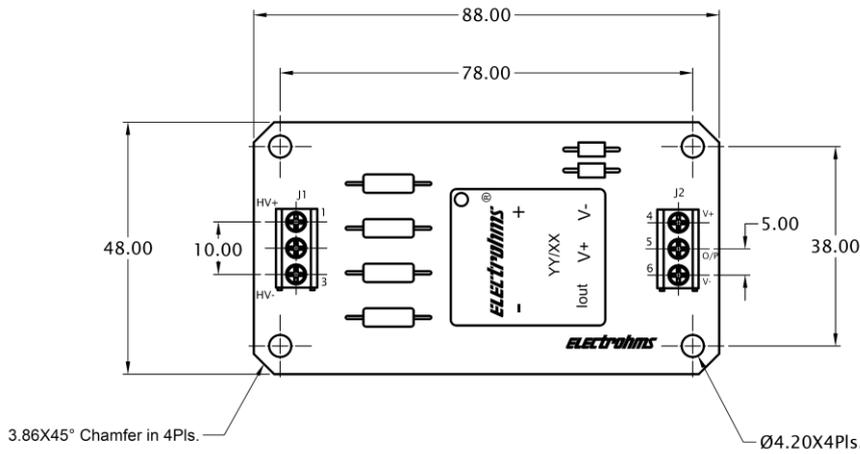
Parameters	Symbol	Condition	Min	Typ	Max	Units
Input voltage nominal	V_{pn}			150		V
Input voltage measuring range	V_p		-225		+225	V
Input current nominal	I_{pn}			10		mA
Burden resistance	R_b	with $\pm 12V$ at $I_{pn} = \pm 150V$	30		200	Ω
		with $\pm 12V$ at $I_{pn} = \pm 225V$	30		100	Ω
		with $\pm 15V$ at $I_{pn} = \pm 150V$	100		340	Ω
		with $\pm 15V$ at $I_{pn} = \pm 225V$	100		180	Ω
Resistance of secondary winding	R_s			45		Ω
Resistance of primary winding	R_p			15		k Ω
Output offset current at $V_{pn} = 0$	I_{off}			± 0.20		mA
Output current at V_{pn}	I_{out}			25		mA
Turns ratio	K			2500:1000		
Supply voltage ($\pm 5\%$)	V_s		± 12		± 15	V
Current consumption	I_c	at $\pm 15 V$		$12 + I_{out}$		mA
Variation of I_{off} wrt temperature	I_{ot}	-25 to 70 °C		≤ 0.80		mA
Linearity error	Σ_L			< 0.2		%
Accuracy at V_{pn}	X_G			± 1.0		%
Response time 90% of V_{pn}	t_{ra}			< 40.0		μS
Total primary power loss				1.5		W
Ambient operating temperature	T_A		-25		+70	°C
Ambient storage temperature	T_s		-40		+85	°C
Mass	m			50		g

Input Output Characteristics

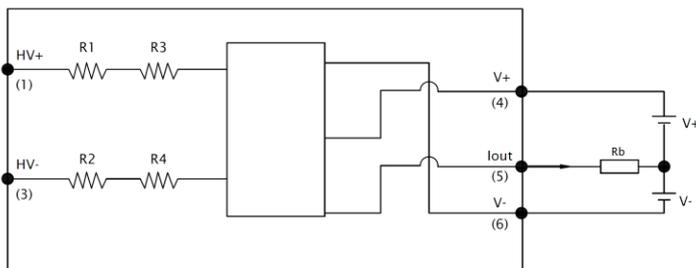


Mechanical dimensions

GENERAL TOL. ±0.50 mm	
ALL DIMENSIONS ARE IN 'mm'	SCALE -NTS



Connection Diagram



- Connector on the product: Terminal block, part no.- 1711738, Phoenix contact
- Sensor mounting: 4 holes X Ø 4.2mm, M4 steel screws, recommended fastening torque 2.0 N-m
- I_{out} is positive when V_p is applied to +HV terminal
- Power supply and output terminal is not protected against polarity reversal

Safety



- This Current Transformer 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 voltage ($\gg V_{pk}$) or missing of the power supply voltage can cause an additional remaining magnetic offset.
- This Sensors may only be used in electrical or electronic systems which fulfil the relevant regulations (Standards, EMC Requirements)
- Pay attention to 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.