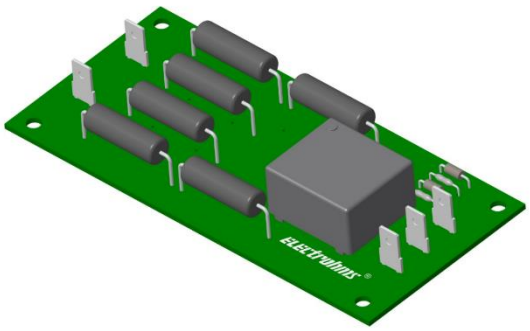
V_{pn} = 1000V



Representative image only

Features

- Bipolar and isolated measurement up to 1500V
- Current output
- Input and output connections with tab terminal

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

- Industrial

Standards

- UL508*
- EN50178 (IEC 62477)

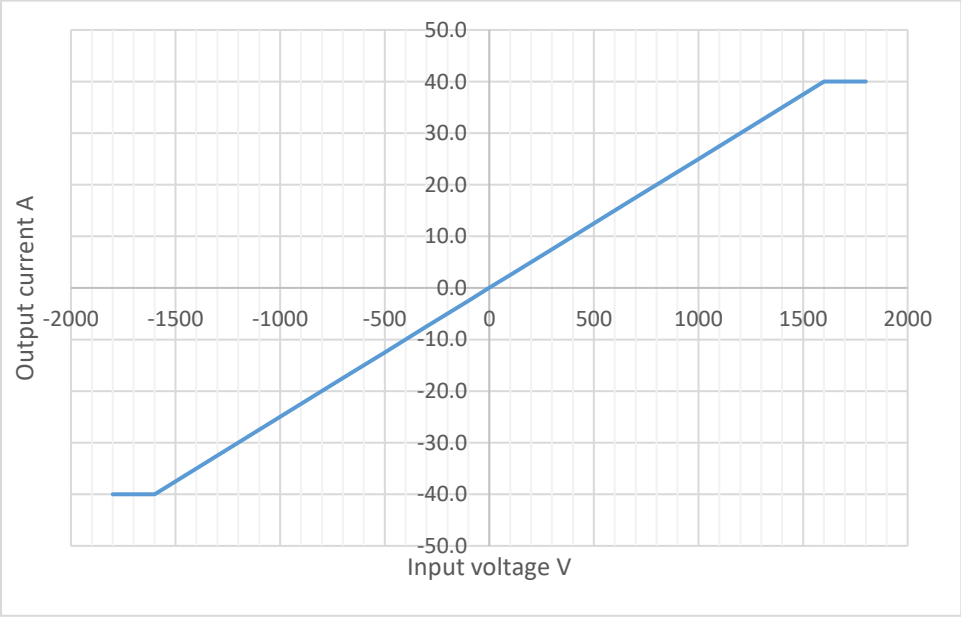
Insulation characteristics

Parameters	Symbol	Value	Units
Dielectric strength between primary and secondary terminals, 50Hz, 60seconds	V_d	4.1	kVrms
Comparative tracking index	CTI	175	V
Insulation resistance	R_{is}	≥100	MΩ
Creepage distance		14.50	mm
Clearance distance		14.50	mm

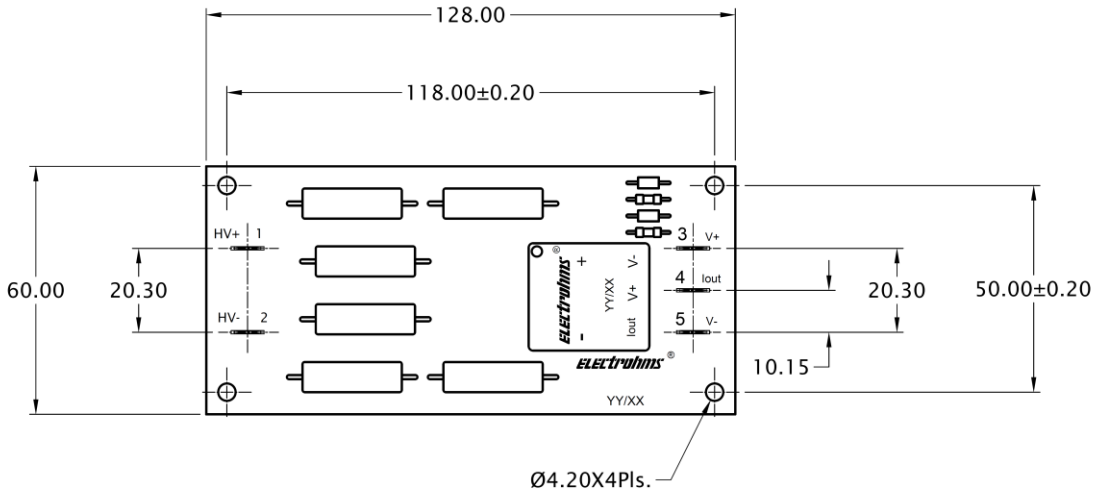
Specifications (Unless otherwise specified temperature is 25°C)

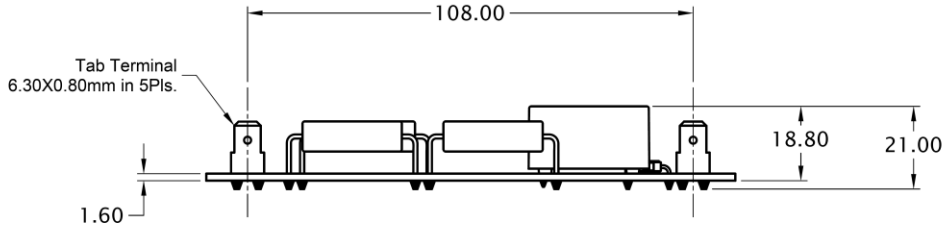
Parameters	Symbol	Condition	Min	Typ	Max	Units
Input voltage nominal	V_{pn}			1000		V
Input voltage measuring range	V_p		-1500		+1500	V
Input current nominal	I_{pn}			8		mA
Burden resistance	R_b	with ±12V at V_{pn} = ±1000V	30		200	Ω
		with ±12V at V_{pn} = ±1500V	30		100	Ω
		with ±15V at V_{pn} = ±1000V	100		320	Ω
		with ±15V at V_{pn} = ±1500V	100		180	Ω
Resistance of secondary winding	R_s			45		Ω
Resistance of primary	R_p			124		kΩ
Output offset current at V_{pn} = 0	I_{off}			±0.20		mA
Output current at V_{pn}	I_{out}			25		mA
Turns ratio	K			3100:1000		
Supply voltage (±5%)	V_s		±12		±15	V
Current consumption	I_c	at ±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			±0.8		%
Response time 90% of V_{pn}	t_{ra}			<40.0		µS
Total primary power loss				8		W
Ambient operating temperature	T_A		-25		+70	°C
Ambient storage temperature	T_s		-40		+85	°C
Mass	m			80		g

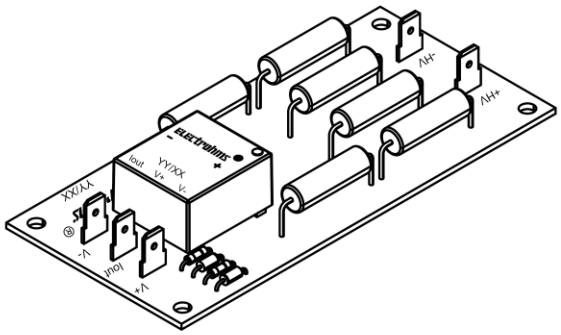
Input Output Characteristics



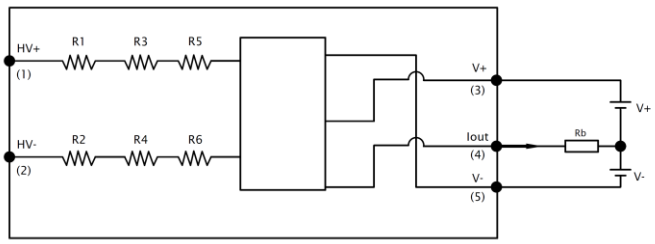
Mechanical dimensions







Connection Diagram



General information

- Connector on the product: Faston tab, part no.- 62409-1, TE Connectivity AMP Connectors
- Suggested mating connector: Faston receptacle terminal part no.- 63609-2, TE Connectivity AMP Connectors
- 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
- Electrohms reserves the right to make modifications on products for improvements without prior notice.
- * Designed to meet UL508

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 (»V_{PN}) 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.