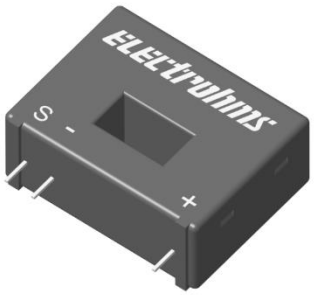
I_{pn} = 50A



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
- Current overload capability
- No insertion losses

Applications
- Battery supplied applications
- Uninterruptible power supplies (UPS)
- Switched mode power supplies (SMPS)
- AC, DC pulsed in electrical & electronic equipment

Application domain
- Commercial
- Industrial

Standards
- EN 50178
- UL508*

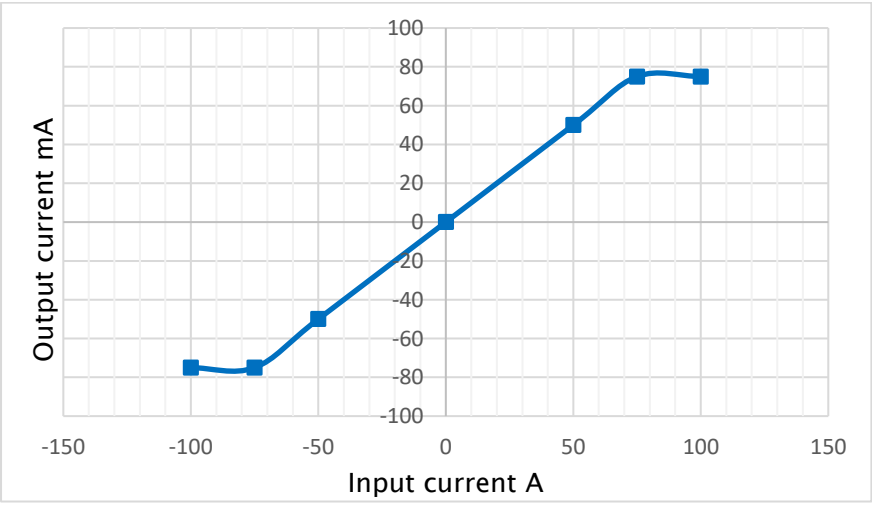
Insulation Characteristics

Parameters	Symbol	Value	Units
Dielectric strength between primary and secondary terminals,50Hz, 60 seconds	V_d	2.5	kVrms
Comparative tracking index	CTI	250	V
Insulation resistance at 500 VDC	R_{is}	>100	MΩ
Creepage distance		15.00	mm
Clearance distance		11.00	mm

Specifications (Unless otherwise specified temperature is 25°C)

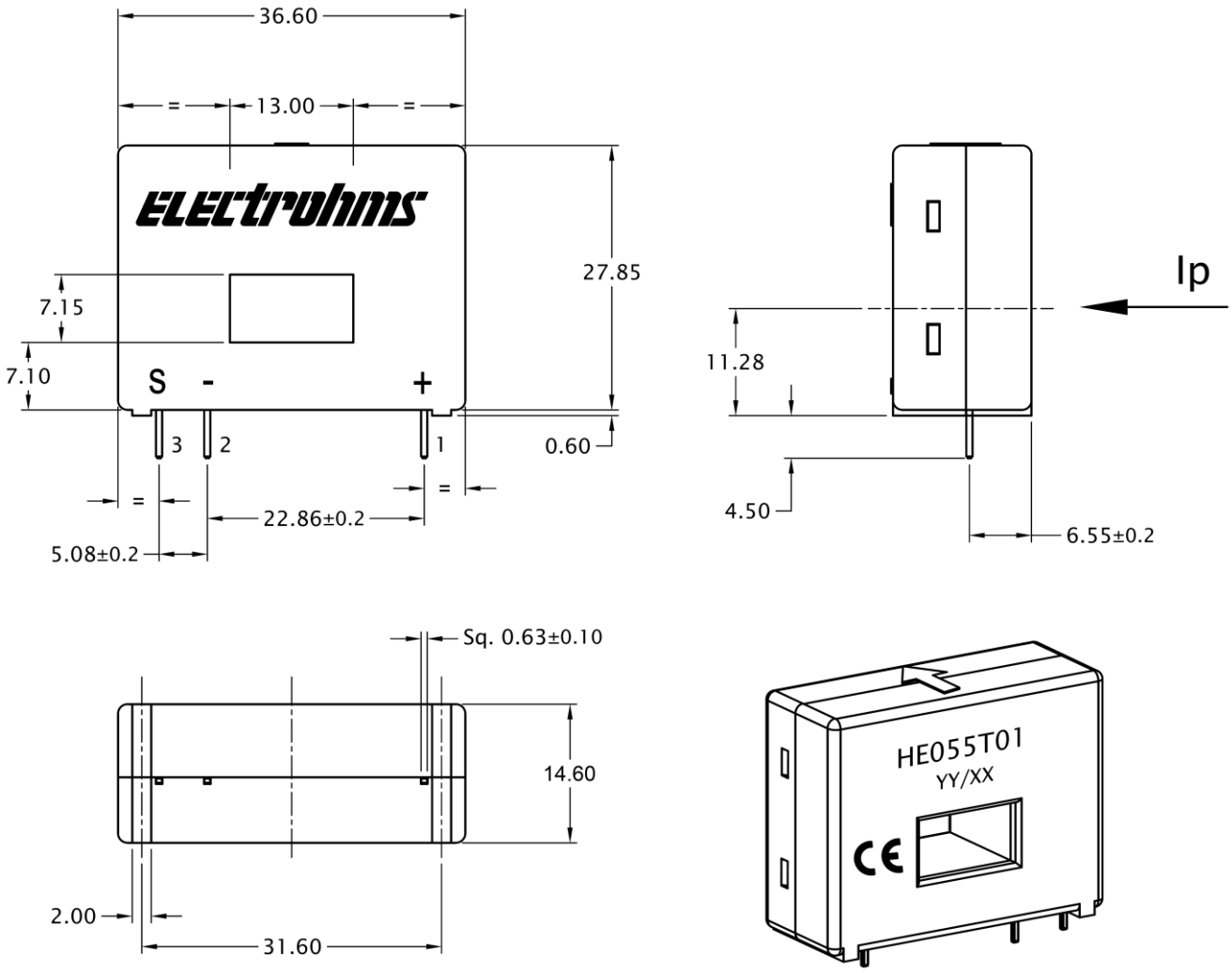
Parameters	Symbol	Condition	Min	Typ	Max	Units
Input current nominal	I_{pn}			50		Arms
Input current measuring range	I_P		-70		+70	A
Burden resistance	R_b	with ±12V, ±50A at 70°C		70		Ω
		with ±12V, ±70A at 70°C		60		Ω
		with ±12V, ±50A at 85°C		90		Ω
		with ±12V, ±70A at 85°C		70		Ω
		with ±15V, ±50A at 70°C		130		Ω
		with ±15V, ±70A at 70°C		102		Ω
		with ±15V, ±50A at 85°C		150		Ω
		with ±15V, ±70A at 85°C		112		Ω
Secondary winding resistance	R_s			43		Ω
Output current at I_{pn}	I_{out}			50		mA
Number of secondary turns	N_s			1000		
Theoretical sensitivity	G_{th}			1		mA/A
Supply voltage	V_s	±5%	±12		±15	V
Current consumption	I_c	$V_s = \pm 15$ V		11 + I_{out}		mA
Offset current	I_o		-0.2		+0.2	mA
Temperature variation of I_O	I_{ot}	-25 to +85 °C	-0.6		+0.6	mA
		-40 to -25 °C	-1.0		+1.0	
Linearity error	Σ_l			<0.15		%
Overall accuracy at I_{pn}			-0.65		+0.65	%
Reaction time 10% I_{pn}				<0.5		µs
Response time at 90% of I_{pn}	t_r	di/dt of 200 A/µs		<1.0		µs
Frequency bandwidth	BW	-1dB, small signal bw	0		200	kHz
di/dt accurately followed	di/dt			>200		A/µs
Ambient operating temperature	T_A		-40		+85	°C
Ambient storage temperature	T_s		-40		+85	°C
Mass	m			25		g

Input & Output Characteristics

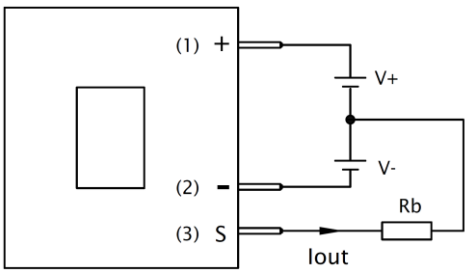


Mechanical dimensions

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



Connection Diagram



- Sensor mounting: PCB mountable.
- 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.
- * Designed to meet UL508.
- Ensure proper connection of power supply to avoid damage to the sensor.

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 (»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.