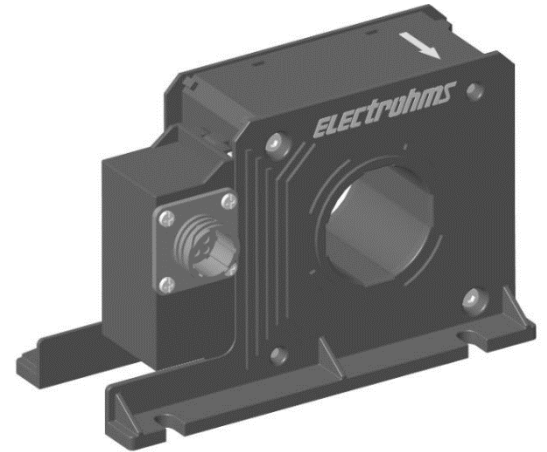


$I_{pn} = 1000A$ 

## Features

- Plastic outer case compliant to UL 94-V0

## Advantage

- Very good linearity
- Excellent accuracy
- Low temperature drift
- Wide frequency bandwidth
- Optimized response time

## 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
- Traction

## Standards

- EN 50178
- UL508

## Insulation Characteristics

Parameters	Symbol	Value	Units
Dielectric strength between primary & secondary + test winding + screen, 50Hz, 60 seconds	$V_{d1}$	6.0	kVrms
Dielectric strength between screen & secondary + test winding, 50Hz, 60 seconds	$V_{d2}$	1.0	kVrms
Dielectric strength between secondary & test winding, 50Hz, 60 seconds	$V_{d3}$	500	Vrms
Comparative tracking index	CTI	250	V
Insulation resistance at 500 VDC	$R_{is}$	>100	MΩ
Creepage distance		88.00	mm
Clearance distance		45.00	mm

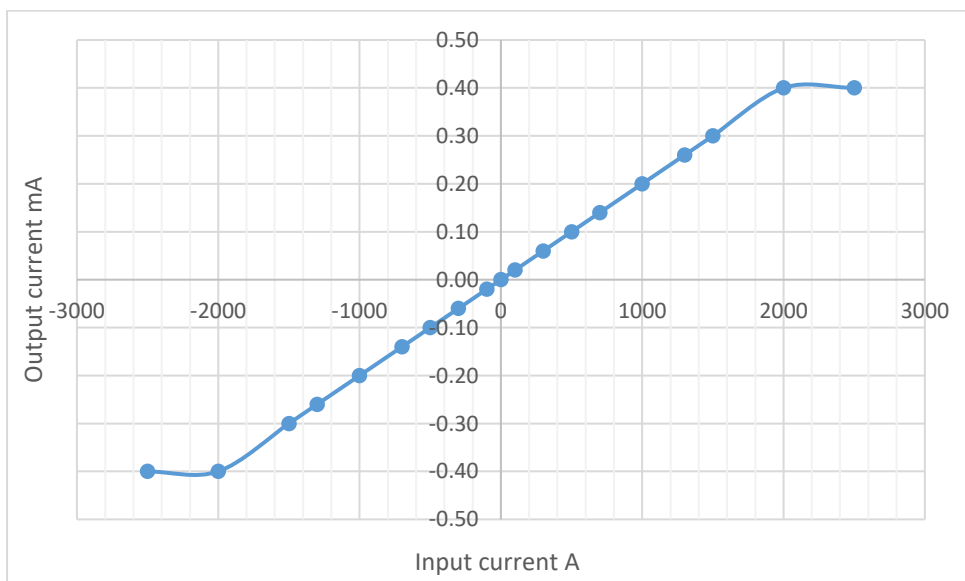
Specifications (Unless otherwise specified temperature is 25°C)

Parameters	Symbol	Condition	Min	Typ	Max	Units
Input current nominal	$I_{pn}$			1000		A
Input current measuring range	$I_p$		-2000		+2000	A
Burden resistance	$R_b$	with $\pm 15V$ at $\pm 1000A$ max	0		25	
		with $\pm 15V$ at $\pm 1500A$ max	0		5	
		with $\pm 24V$ at $\pm 1000A$ max	0		65	$\Omega$
		with $\pm 24V$ at $\pm 2000A$ max	0		12	$\Omega$
Secondary winding resistance	$R_s$	at +70°C		44		$\Omega$
Output current at $I_{pn}$	$I_{out}$			200		mA
Number of secondary turns	$N_s$			5000		
Theoretical sensitivity	$G_{th}$			0.20		mA/A
Supply voltage ( $\pm 5\%$ )	$V_s$			$\pm 24$		V
Current consumption	$I_c$	$V_s = \pm 24 V$		$32 + I_{out}$		mA
Offset current	$I_o$		-0.4		+0.4	mA
Variation of $I_o$ wrt temperature	$I_{OT}$	-40 to +70°C	-0.5		+0.5	mA
Linearity error	$\Sigma_L$			< 0.1		%
Overall accuracy at $I_{pn}$	$X_G$		-0.3		+0.3	%
Response time at 90% of $I_{pn}$	$t_{ra}$			< 1		$\mu s$
Frequency bandwidth	BW	-3dB, small signal bw	DC		100	kHz
di/dt accurately followed	di/dt			>50		A/ $\mu s$
Ambient operating temperature	$T_A$		-40		+70	°C
Ambient storage temperature	$T_S$		-40		+85	°C
Mass	m			1.2		kg

Test circuit

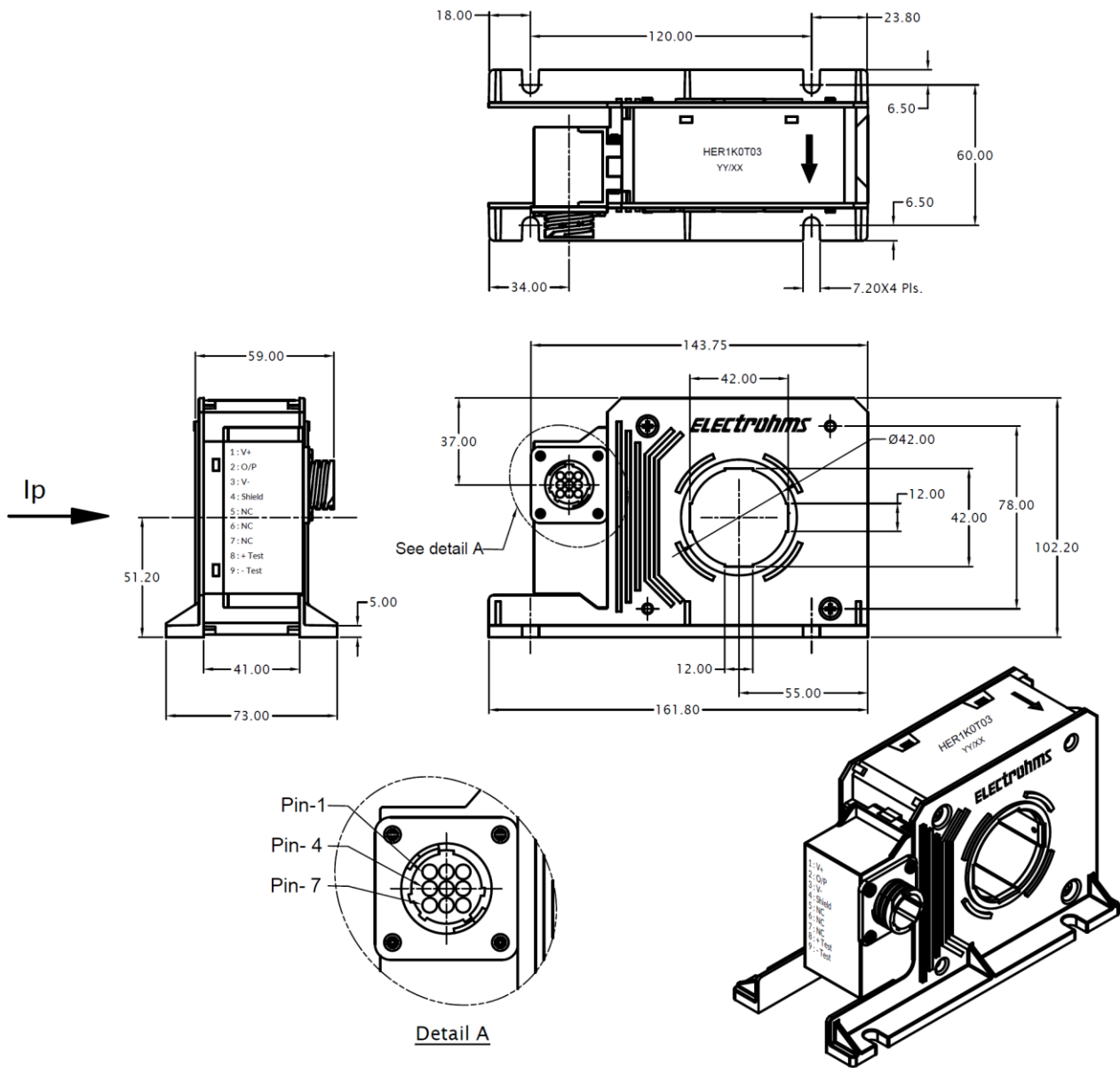
Number of test turns	$N_t$			1000		
Resistance of test winding	$R_t$	at 70°C		20		$\Omega$
Test current	$I_t$	for 10s		1		A
		for 5s		2		A

Input & Output Characteristics

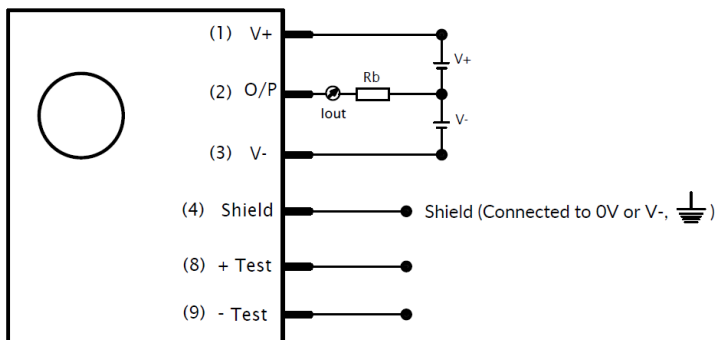


## Mechanical dimensions

GENERAL TOL. ± 1.5 mm	
ALL DIMENSIONS ARE IN 'mm'	SCALE - NTS



## Connection Diagram



Pins 5, 6 & 7 no connection (NC)

- Connector on the product: Connector header, part no- 206705-1, & corresponding pin part no: 202236-7, TE Connectivity AMP Connectors
- Suggested mating connector: Connector housing, part no- 206708-1, & corresponding pin part no: 66104-8, TE Connectivity AMP Connectors
- Sensor mounting: 4 slots X Ø 7.20 mm, 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

## 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.
- Disconnecting the main power must be possible.
- 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 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