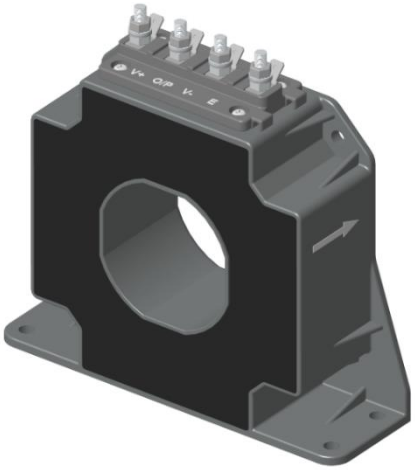
$I_{pn}$ = 2000$A_{rms}$



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

## 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)

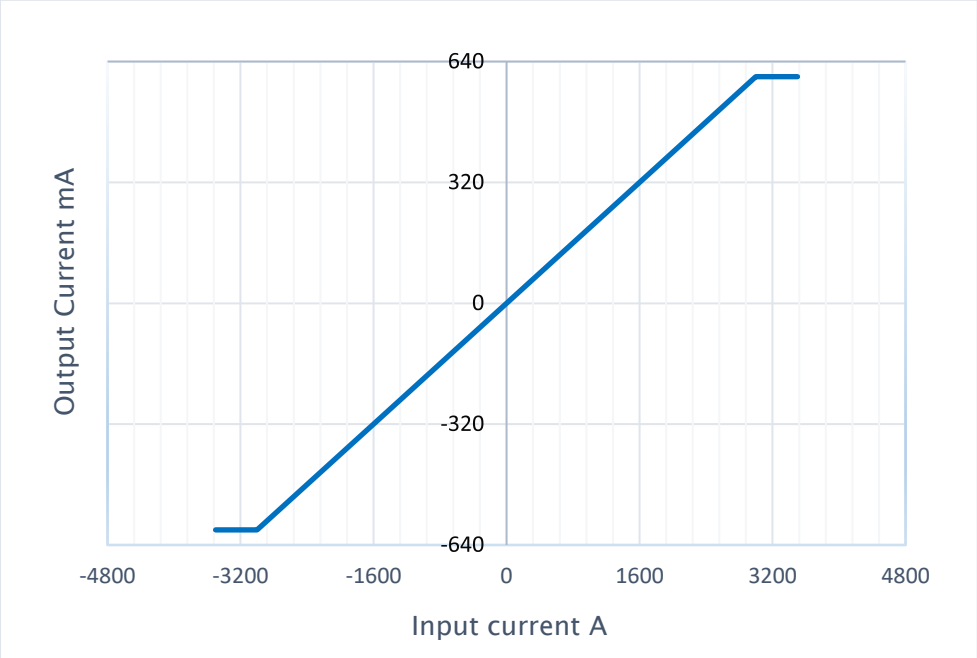
## Insulation Characteristics

| Parameters | Symbol | Value | Units |
|---|---|---|---|
| Dielectric strength between primary and secondary terminals,50Hz, 60 seconds | $V_d$ | 6.0 | kVrms |
| Dielectric strength between shield and secondary terminals, 50Hz, 60 seconds. | $V_d$ | 1.0 | kVrms |
| Comparative tracking index | CTI | >250 | V |
| Insulation resistance at 500 VDC | $R_{is}$ | >100 | MΩ |
| Creepage distance | | 64.0 | mm |
| Clearance distance | | 50.0 | mm |

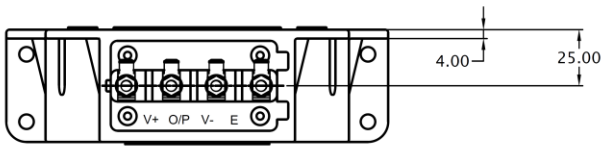
## Specifications (Unless otherwise specified temperature is 25°C)

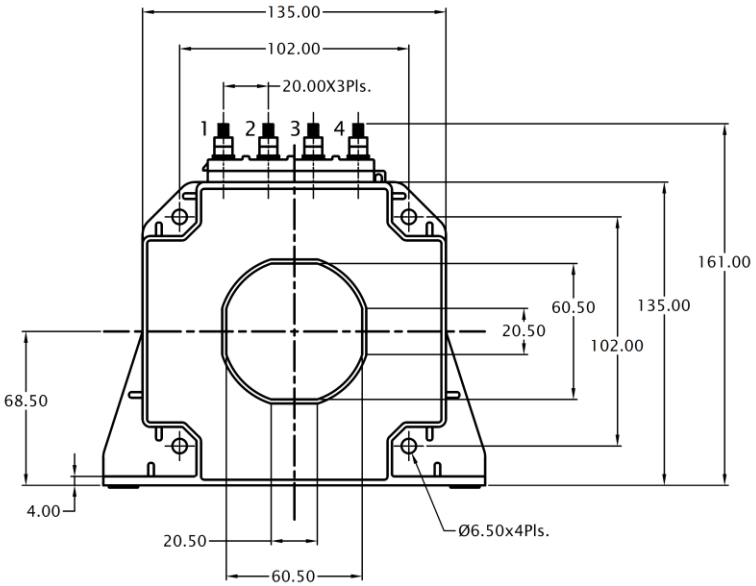
| Parameters | Symbol | Condition | Min | Typ | Max | Units |
|---|---|---|---|---|---|---|
| Input current nominal | $I_{pn}$ | | | 2000 | | Arms |
| Input current measuring range | $I_p$ | | -3000 | | +3000 | A |
| Burden resistance | $R_b$ | with ±15V, ±1600A at 70°C | 0 | | 8 | Ω |
| | | with ±15V, ±2200A at 70°C | 0 | | 5 | Ω |
| | | with ±24V, ±2000A at 70°C | 5 | | 29 | Ω |
| | | with ±24V, ±3000A at 70°C | 5 | | 11 | Ω |
| Secondary winding resistance | $R_s$ | at 85°C | | 26 | | Ω |
| Output current at $I_{pn}$ | $I_{out}$ | | | 400 | | mA |
| Number of secondary turns | $N_s$ | | | 5000 | | - - - |
| Theoretical sensitivity | $G_{th}$ | | | 0.2 | | mA/A |
| Supply voltage | $V_s$ | ±5% | ±15 | | ±24 | V |
| Current consumption | $I_c$ | $V_s$ = ±24 V | | 30+$I_{out}$ | | mA |
| Offset current | $I_{off}$ | | -0.5 | | +0.5 | mA |
| Variation of $I_{off}$ wrt temperature | $I_{ot}$ | -40 to +85°C | -0.5 | | +0.5 | mA |
| Linearity error | $\Sigma_L$ | | -0.1 | | +0.1 | % |
| Overall accuracy at $I_{pn}$ | $X_G$ | | -0.3 | | +0.3 | % |
| Response time @ 90% of $I_{pn}$ | $t_r$ | di/dt of 50 A/µs | | < 1.0 | | µs |
| Frequency bandwidth | BW | -3dB, small signal bw | 0 | | 100 | kHz |
| di/dt accurately followed | di/dt | | | >50 | | A/µs |
| Ambient operating temperature | $T_A$ | | -40 | | +85 | °C |
| Ambient storage temperature | $T_S$ | | -45 | | +90 | °C |
| Mass | m | | | 1.700 | | kg |

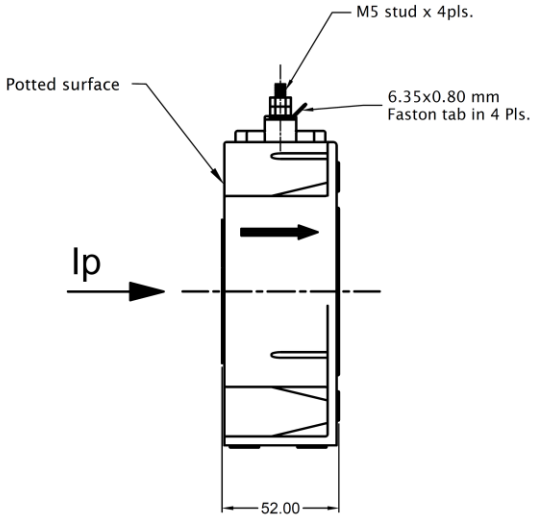
## Input & Output Characteristics

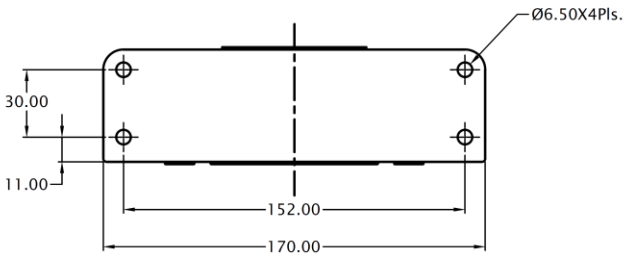


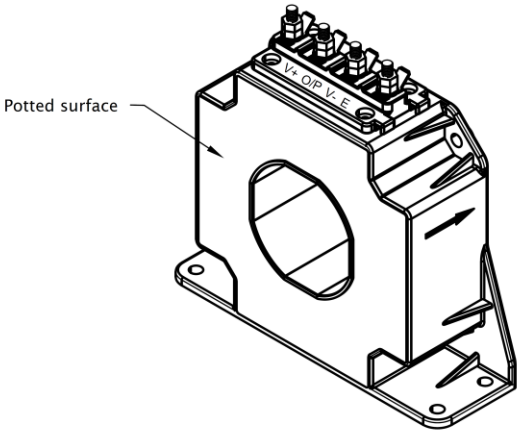
## Mechanical dimensions



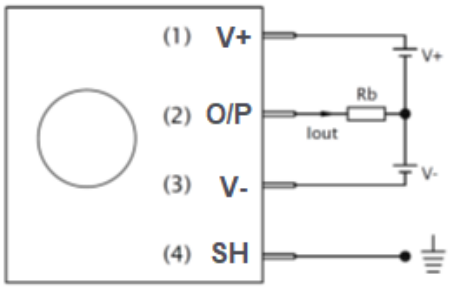




Tolerance unless otherwise specified

| 0.5 up to 3 in mm | 3 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 | ± 1.0 | ± 1.50 | ± 2.50 | ± 4.0 | 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: Base mounting, 4 holes X Ø 6.5mm, M6 steel screws, recommended fastening torque 4.6 N-m
  Vertical mounting, 4 holes 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 (»$I_{pn}$) can cause an additional 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.