

## Toroidal Current Transformer

The **TA22E11** Series of low cost toroidal current transformers are designed for application where an AC current signal must be transformed into lower AC current or voltage signal appropriate for micro-processor based circuits.

The **TA22E11** series are designed specifically for integration into products which require exceptionally accurate signal transformation with low phase shift while exposed to harsh environmental operating conditions.



### Features:

- Rated Primary: 5A to 120A depending upon primary to secondary ratio selected.
- Available in PCB mounted configuration or with lead wires.
- Nanocrystalline core.

### Specifications:

- Maximum Primary Current: 120A
- Frequency: 50 to 400Hz.
- Primary to Secondary Ratio:

1:2000 (maximum 60A)	1:2500 (maximum 100A)
1:3000	1:4000

- Output: mV or mA at rated current.
- Isolation Voltage: 2,500 VAC for 1 minute.
- Surge Withstand Voltage: 5,000V (1.2/50 $\mu$ s standard shock wave)
- Dielectric Resistance: 1000M Ohms @ 500 VDC.

- Rated Load Resistance:
  - mV output:  $\geq 100k$  Ohms.
  - mA output:  $\leq 200$  Ohms.
- Operating Temperature: -25 $^{\circ}$ C to +85 $^{\circ}$ C.
- Construction:
  - Core: Nanocrystalline.
  - Case material – PBT Resin, UL flame retardant rating 94 V-0.
  - Epoxy encapsulated.
- Lead Wires: AWM 1007, Twisted Pair, 0.34mm<sup>2</sup> (22AWG), 300V, 0.20m (0.7FT).
- Lead termination: Stripped and tinned.
- UL Certified (File #E466650)
- CE Approved.
- RoHS compliant.

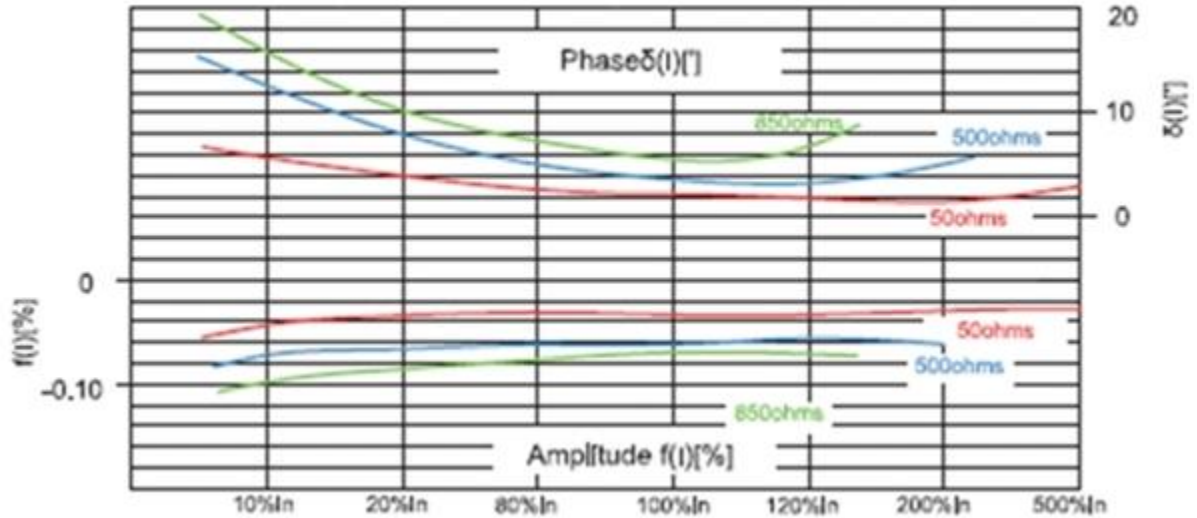


### Performance:

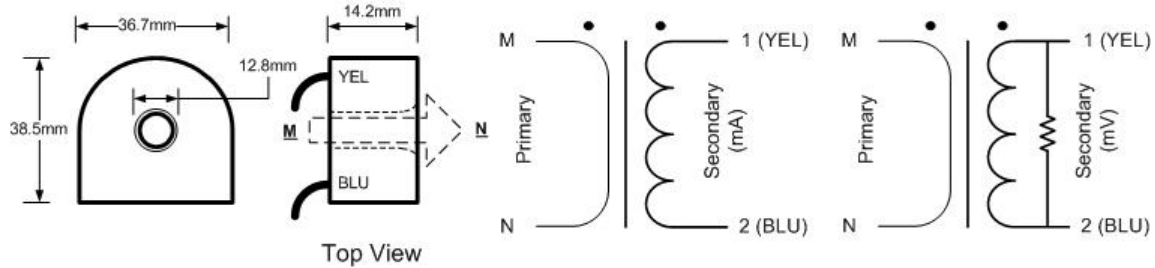
- Accuracy Class (IEC 60044-1): 0.1
- Accuracy:  $\leq \pm 0.1\%$
- Phase Angle:  $\leq 5'$  @ rated current.
- Secondary Burden Impedance:  $\leq 200$  ohms
- Linearity:  $\pm 0.1\%$  from 5% to 120% of rated primary current.

### Typical Performance – TA22E11:

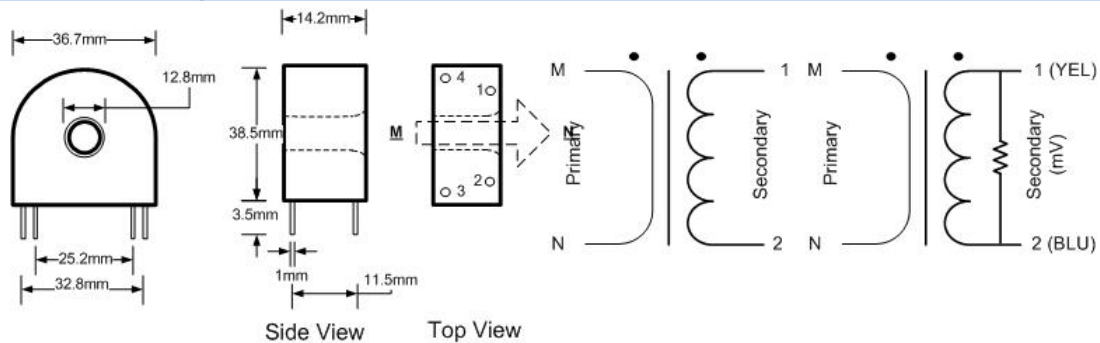
TA22E11-20(120)A/10mA Nanocrystalline core (test temperature 25°C)



### Outline Drawing w Lead Wires:



### Outline Drawing w PCB Mounted:



Custom current transformer designs are available to meet the specific application requirements. For a no obligation technical evaluation, please provide the specific performance requirements to [engineering@tichenassociates.com](mailto:engineering@tichenassociates.com) or the address below.