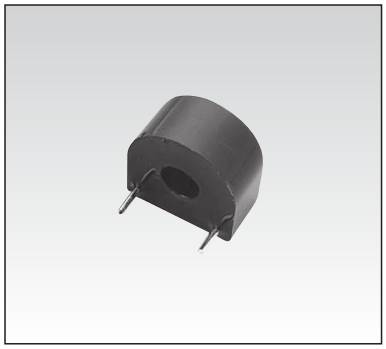
Precision Purpose CTL-Z series

Ultra small AC current sensor for precise measurement for PCB mounting horizontally

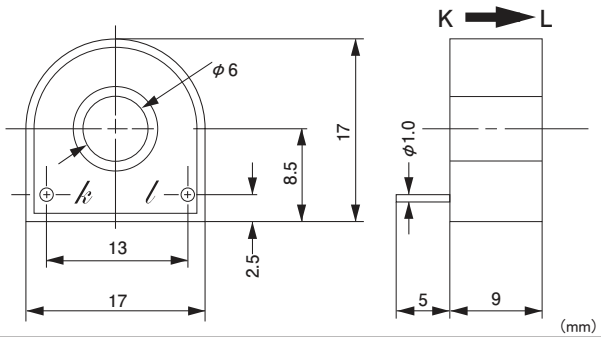


Model CTL-6-L-Z

〔Features〕

- ●Straight pins for PCB mounting horizontally. The smallest model in CTL-Z series for precise measurement.
- ●Ensure aperture diameter (φ6) in ultra small model. Mass approximately 5g, optimum for PCB mounting directly with the penetrated conductor.
- ●Covering the wide range of 1mA~15A with adoption of permalloy core of high magnetic permeability
- ●Possible to interface with electrical circuit directly by 800:1 high current ratio

〔Outline drawing〕



〔Specification〕 Ta=25℃

Model	CTL-6-L-Z
Primary current	1mA ～ 15Arms (50／60Hz)、RL≦10Ω
Maximum primary current	60Arms continuous
Saturation limited current	20Arms (50／60Hz)、RL≦1Ω
Output characteristics	Refer "Output voltage characteristics"
Linearity	Refer "Coupling efficiency [K] characteristics" (Use the flat range of [K] characteristic in the application as the linear sensor)
Secondary windings (n)	800±2 turn
Secondary windings resistance	33Ω (reference)
Withstand voltage	AC2000V(50/60Hz), 1min(between aperture and output terminal in a lump)
Insulation resistance	DC500V, ≧100MΩ (between aperture and output terminal in a lump)
Operating temperature	−20℃～ +75℃ , ≦80%RH, no condensation
Storage temperature	−30℃～ +90℃ , ≦80%RH, no condensation
Structure	PBT plastic case, potted by epoxy on one side
Output terminal	φ1.0 X 5ℓ (hard cupper pins), gold plating
Mass	approximately 5g

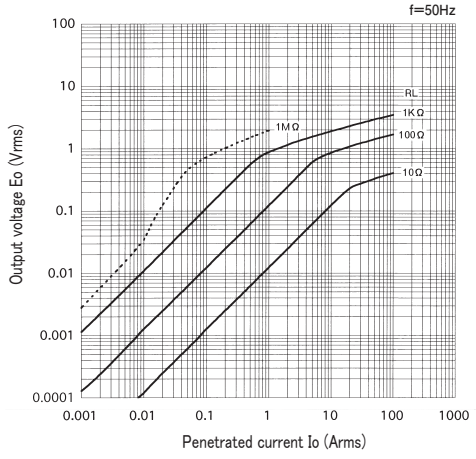
Remark (1) Output voltage is changed by the penetrated current/load resistor/[K] characteristic and so on. Please set up the condition for use with careful investigation of each characteristic

(2) Please use with enough margin if the range of coupling efficiency [K] ≤ 0.9, because it is the range to happen the individual difference.

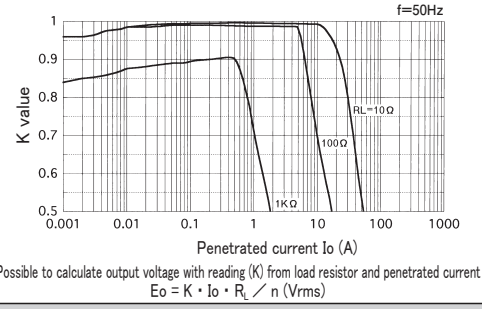
(3) Opening the secondary during turn ON is hazardous and the cause of failure, because of generating high voltage

(4) Please be careful of CT heating in case to use with high frequency, although this CT is basically used at 50/60Hz.

〔Output voltage characteristics〕

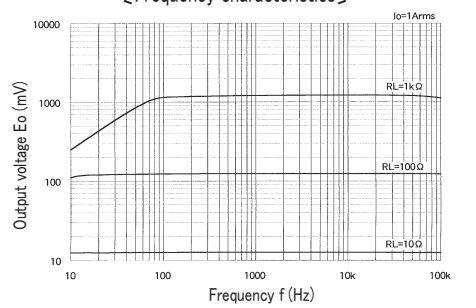


〔Coupling efficiency (K) characteristics〕



(Possible to calculate output voltage with reading (K) from load resistor and penetrated current
Eo = K・Io・RL／n (Vrms))

〔Frequency characteristics〕



2016.7