

# Precision Purpose CTL-Z series

Medium size high accuracy AC current sensor for precise measurement for both of PCB and panel mounting

AC current sensor

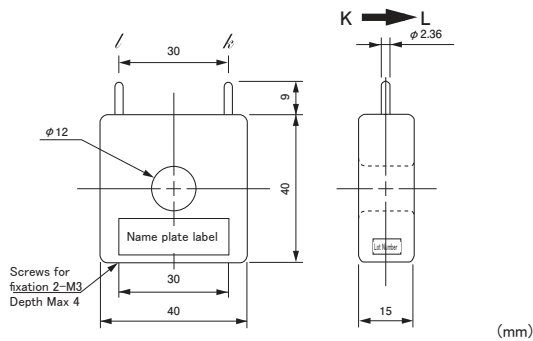


**Model** CTL-12-S60-7Z

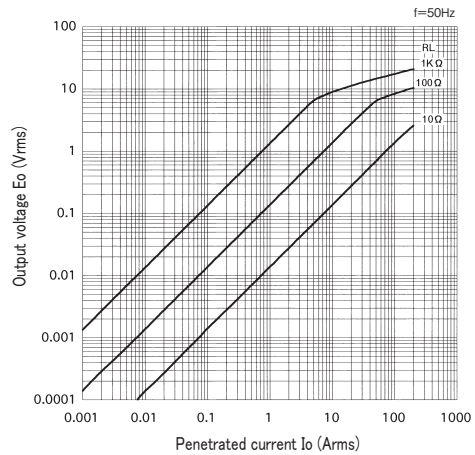
**[Features]**

- Dimension and shape compatible model with medium size standard model (CTL-12-S30-10Z) of  $\phi 12$  aperture diameter for precise measurement
- Covering the wide range of 0.5mA~100A with enlarged core section
- Possible to interface to electrical circuit directly by small secondary current with high current ratio of 720:1
- Robust structure with output terminal of round pins ( $\phi 2.36 \times 9\text{mm}$ ). Possible to correspond to soldering to wire, and connector set, sold separately
- Prepared mounting bracket sold separately (HLD-12) for panel mounting

**[Outline drawing]**



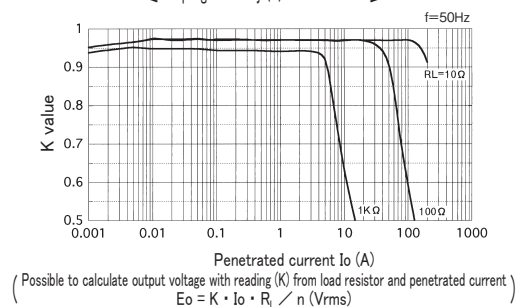
**[Output voltage characteristics]**



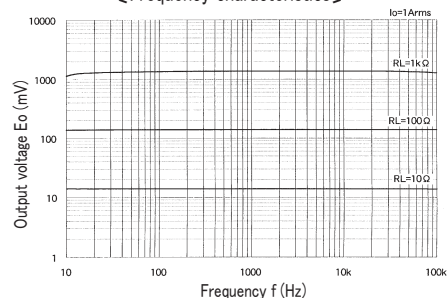
**[Specification] Ta=25°C**

Model	CTL-12-S60-7Z
Primary current	0.5mA ~ 100Arms (50 / 60Hz), $R_L \leq 10\Omega$
Maximum primary current	230Arms continuous
Saturation limited current	200Arms (50 / 60Hz), $R_L \leq 1\Omega$
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)	719 ± 2 turn
Secondary windings resistance	19Ω (reference)
Withstand voltage	AC2000V(50/60Hz), 1min(between aperture and output terminal in a lump)
Insulation resistance	DC500V, $\geq 100M\Omega$ (between aperture and output terminal in a lump)
Operating temperature	-20°C ~ +75°C, $\leq 80\%RH$ , no condensation
Storage temperature	-30°C ~ +90°C, $\leq 80\%RH$ , no condensation
Structure	PBT plastic case, potted by epoxy on one side
Output terminal	$\phi 2.36 \times 9\text{mm}$ (round pins), tin plating
Screw torque	0.3N · m
Mass	approximately 75g

**[Coupling efficiency (K) characteristics]**



**[Frequency characteristics]**



- 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]  $\leq 0.9$ , 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.
- (5) Please refer Appendix-1 accessories list for accessories