

Precision Purpose CTL-Z series

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

AC current sensor

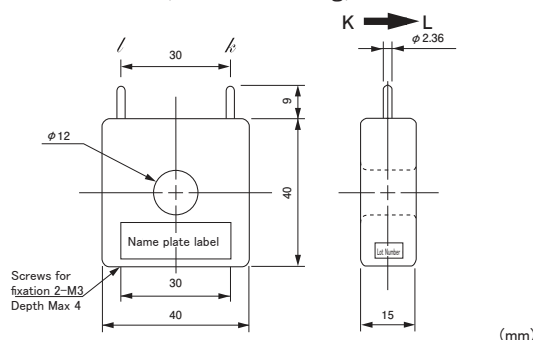


Model CTL-12-S30-10Z

[Features]

- Medium size standard current sensor of $\phi 12$ aperture diameter for precise measurement
- Covering the wide range of 1mA~100A with adoption of permalloy core of high magnetic permeability
- Possible to interface to electrical circuit directly with high current ratio of 1000:1
- Robust structure with output terminal of round pins ($\phi 2.36 \times 9\phi$). Possible to correspond to soldering to wire, and connector set, sold separately
- Prepared mounting bracket sold separately (HLD-12) for panel mounting

[Outline drawing]

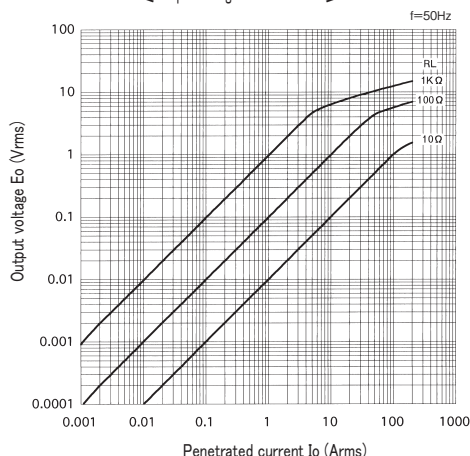


[Specification] $T_a=25^\circ\text{C}$

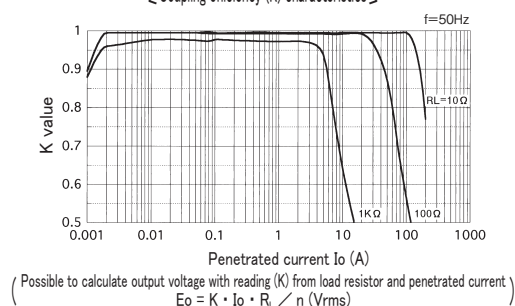
Model	CTL-12-S30-10Z
Primary current	1mA ~ 100Arms (50 / 60Hz), $R_L \leq 10\Omega$
Maximum primary current	250Arms continuous
Saturation limited current	130Arms (50 / 60Hz), $R_L \leq 1\Omega$
Output characteristics	Refer "Output voltage characteristics"
Linearity	Refer "Coupling efficiency [K] characteristics" (Use the flat range of [K] characteristic in the application as the linear sensor)
Secondary windings (n)	1000 \pm 2 turn
Secondary windings resistance	31 Ω (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 $^\circ\text{C}$ ~ +75 $^\circ\text{C}$, $\leq 80\%\text{RH}$, no condensation
Storage temperature	-30 $^\circ\text{C}$ ~ +90 $^\circ\text{C}$, $\leq 80\%\text{RH}$, no condensation
Structure	PBT plastic case, potted by epoxy on one side
Output terminal	$\phi 2.36 \times 9\phi$ (round pins), tin plating
Screw torque	0.3N · m
Mass	approximately 52g

- 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.
- (5) Please refer Appendix-1 accessories list for accessories

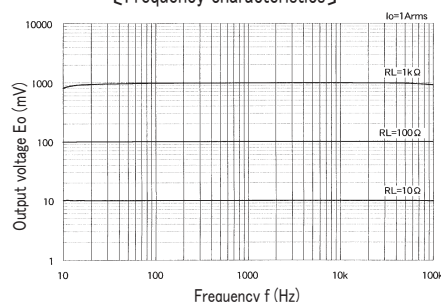
[Output voltage characteristics]



[Coupling efficiency (K) characteristics]



[Frequency characteristics]



2016.7