

Precision Purpose CTL-Z series

Medium size standard AC current sensor for precise measurement with large aperture and output wire type

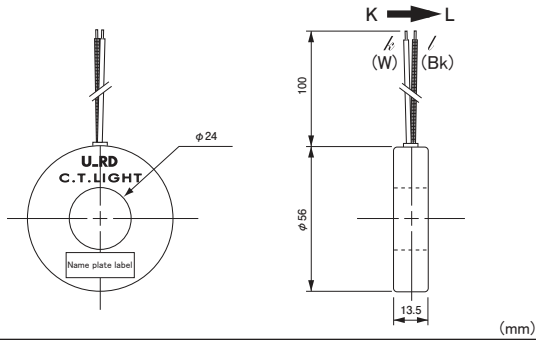


Model CTL-24-S28-10Z

[Features]

- Standard sensor of large aperture of $\phi 24$ aperture diameter for precise measurement
- Covering the wide range of 1mA~80A with adoption of permalloy core of high magnetic permeability
- Possible to interface to electrical circuit directly by small secondary current with high current ratio of 1000:1
- Output wire ($0.3\text{mm}^2 \times 100\Omega$).
- Prepared mounting bracket sold separately (HLD-24) for panel mounting

[Outline drawing]

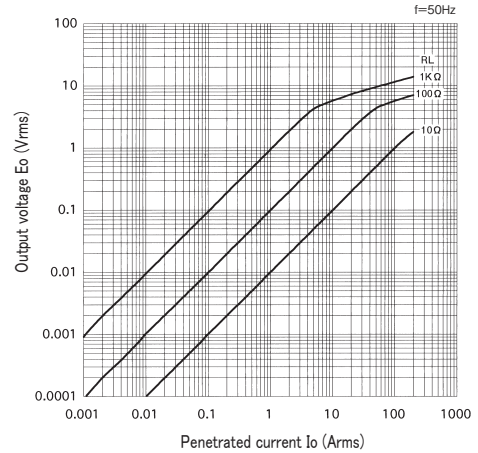


[Specification] $T_a=25^\circ\text{C}$

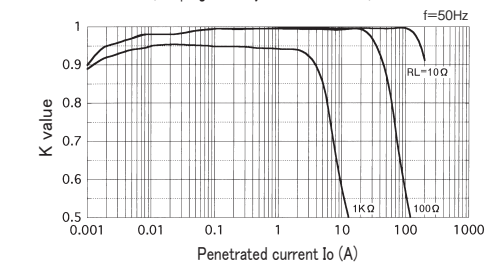
Model	CTL-24-S28-10Z
Primary current	1mA ~ 80Arms (50 / 60Hz)、 $R_L \leq 10\Omega$
Maximum primary current	330Arms continuous
Saturation limited current	200Arms (50 / 60Hz)、 $R_L \leq 1\Omega$
Output characteristics	Refer "Output voltage characteristics"
Linearity	Refer "Coupling efficiency [K] characteristics" (Use the flat range of [K] characteristic in the application as the linear sensor)
Secondary windings (n)	1000 ± 2 turn
Secondary windings resistance	18Ω (reference)
Withstand voltage	AC2000V(50/60Hz), 1min(between aperture and output wire in a lump)
Insulation resistance	DC500V, $\geq 100M\Omega$ (between aperture and output wire in a lump)
Operating temperature	$-20^\circ\text{C} \sim +75^\circ\text{C}$, $\leq 80\%RH$, no condensation
Storage temperature	$-30^\circ\text{C} \sim +90^\circ\text{C}$, $\leq 80\%RH$, no condensation
Structure	Polycarbonate plastic case, potted by epoxy
Output wire	PVC Vinyl isolated wire ($0.3\text{mm}^2 \times 100\Omega$)
Mass	approximately 60g

- 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

[Output voltage characteristics]



[Coupling efficiency (K) characteristics]



(Possible to calculate output voltage with reading (K) from load resistor and penetrated current)
 $E_o = K \cdot I_o \cdot R_L / n$ (Vrms)

[Frequency characteristics]

