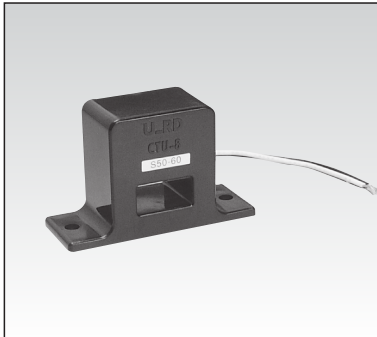


# Precision Purpose CTL-Z series

## High current ratio, high output, high accuracy AC current sensor

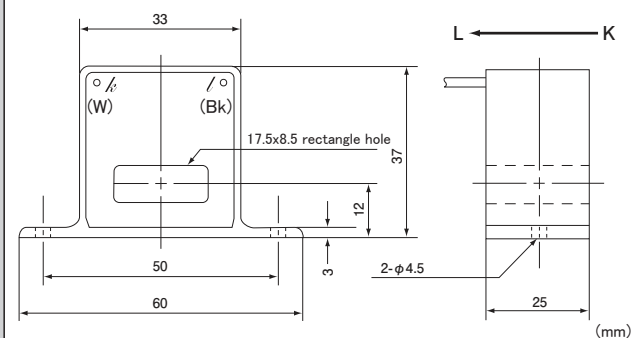


Model CTU-8-S50-60

### [Features]

- Almighty, multiple function current sensor with combination of ferrite core and high current ratio
- Possible to earn the high output voltage by small size, because of high current ratio
- Good linearity from very small current as 1mA~1A to high current range as 1~80A

### [Outline drawing]

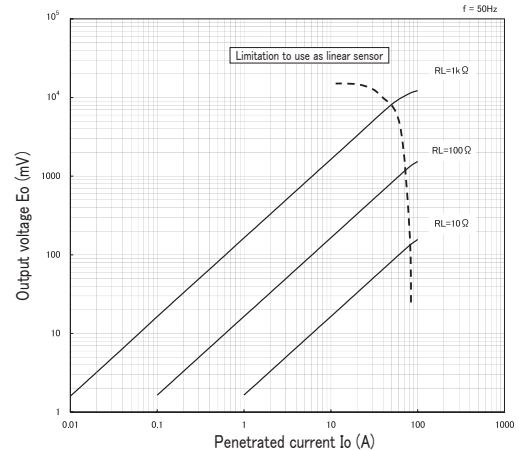


### [Specification] Ta=25°C

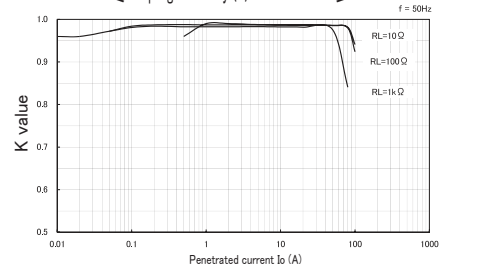
Model	CTU-8-S50-60
Primary current	1mA ~ 80Arms (50 / 60Hz)、 $R_L \leq 10 \Omega$
Maximum primary current	240Arms continuous
Saturation limited current	80Arms (50 / 60Hz)、 $R_L \leq 1 \Omega$
Output characteristics	Refer "Output voltage characteristics"
Linearity	Refer "Coupling efficiency [K] characteristics" (Use the flat range of [K] characteristic in the application as the linear sensor)
Secondary windings (n)	6000 ± 2 turn
Secondary windings resistance	1640 $\Omega$ (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°C ~ +75°C
Storage temperature	-30°C ~ +90°C
Structure	PBT plastic case, potted by silicone on one side
Output wire	Heat resisting Vinyl wire (AWG22X150 $\ell$ )
Screw torque	0.7N · m
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.

### [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]

