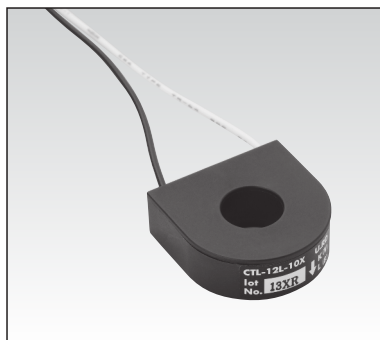


# Precision Purpose CTL-Z series

Medium size high accuracy AC current sensor for precise measurement and wire type with connector for output

AC current sensor

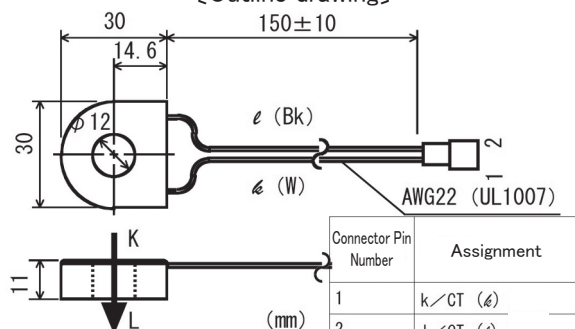


Model CTL-12L-10X

## [Features]

- Small sensor for precise measurement
- Covering the wide range of 1mA~70A with adoption of nano crystalized soft magnetic material
- Phase angle less than  $1^\circ$  (Less than  $10\Omega$ , refer characteristic)
- Excellent linearity in the range of small current (Refer characteristic)
- Possible to interface to electrical circuit directly with high current ratio of 1000:1
- Suitable model for AC measurement with vinyl isolated wire below 12mm of finished outline

## [Outline drawing]

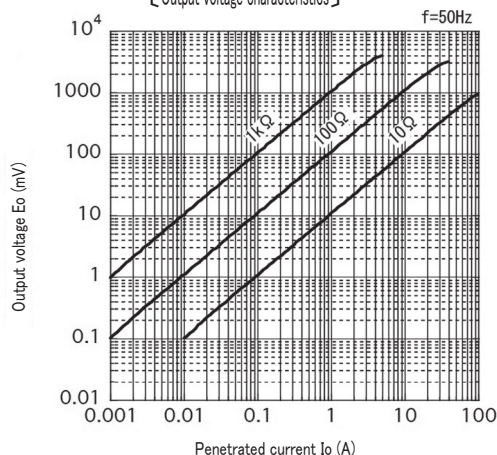


## [Specification] Ta=25°C

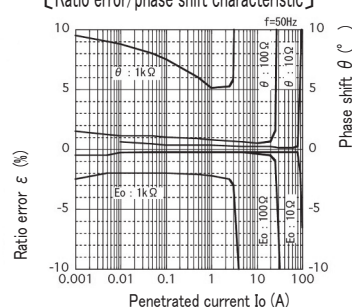
Model	CTL-12L-10X
Primary current	1mA ~ 70Arms (50 / 60Hz), $R_L \leq 10\Omega$
Maximum primary current	120Arms continuous 150Arms 1s (50/60Hz sine wave)
Output characteristics	Refer "Output voltage characteristics"
Linearity	$\pm 1\%$ FS ( $I_o=50A$ $f=50/60Hz$ $R_L=10\Omega$ )
Phase shift	$\pm 1^\circ$ ( $I_o=50A$ $f=50/60Hz$ $R_L=10\Omega$ )
Current ratio	1000 : 1
Secondary windings resistance	30 $\Omega$ (reference)
Withstand voltage	AC2000V(50/60Hz), 1min(between aperture and output connector terminal in a lump)
Insulation resistance	DC500V, $\geq 100M\Omega$ (between aperture and output connector terminal in a lump)
Operating temperature	$-20^\circ C \sim +75^\circ C$ , $\leq 80\%RH$ , no condensation
Storage temperature	$-30^\circ C \sim +90^\circ C$ , $\leq 80\%RH$ , no condensation
Structure	PBT plastic case
Output wire	UL1007 Vinyl wire(AWG22X150L)
Output connector	Pin contact : SYM-001T-P0.6 Receptacle housing : SMR-02V-B (JST)
Mating connector	Socket contact : SHF-001T-0.8BS Plug housing : SMP-02V-BC, NC (JST) (Not included)
Mass	approximately 20g

- Remark (1) No tension to wire more than 1kg  
 (2) In the contents of product specification, inspection, and so on, it is based on the measurement in conditions of standard temperature, humidity, and no abnormality and no vibration, in the case of no special description. It is not guarantee all specifications in the operating temperature and all condition range.  
 (3) Opening the secondary during turn ON is hazardous and the cause of failure, because of generating high voltage  
 (4) Please attention during handling because there is the case to be lower characteristic or case damage with hard impact by falling and so on  
 (5) Impossible to use in outdoor exposure.  
 (6) Please be careful of CT heating in case to use with high frequency, although this CT is basically used at 50/60Hz.

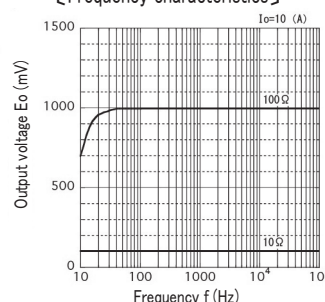
## [Output voltage characteristics]



## [Ratio error/phase shift characteristic]



## [Frequency characteristics]



2016.7