

## Generic small size AC current sensor with large aperture ( $\phi 18$ ) for panel mounting

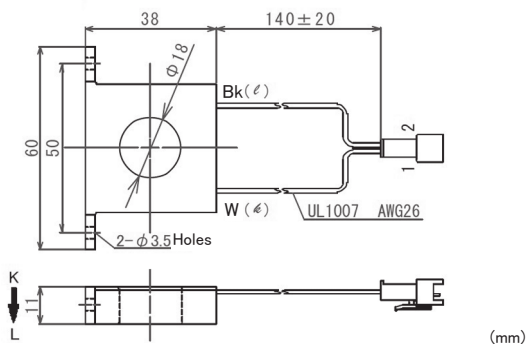


Model CTL-18S-1

### [Features]

- Small size current sensor of high general versatility keeping  $\phi 18$  aperture diameter, though compact shape with 38X38mm
- Possible to interface to electrical circuit directly by small secondary current with high current ratio of 3000:1
- Excellent linearity in the range of 0.1~180Arms
- Panel mounting type compatible specification with CTL-18L-1

### [Outline drawing]

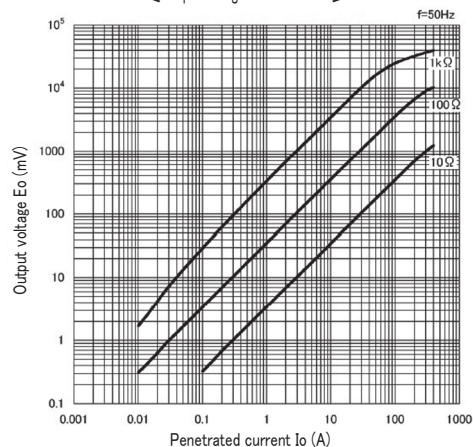


### [Specification] $T_a=25^\circ\text{C}$

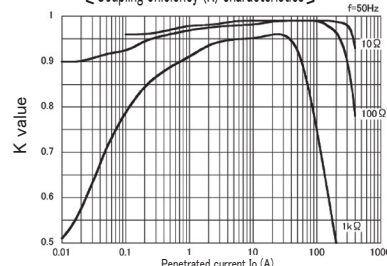
Model	CTL-18S-1
Primary current	0.1A ~ 180Arms (50 / 60Hz), $R_L \leq 10\Omega$
Maximum primary current	180Arms continuous
Output characteristics	Refer "Output voltage characteristics"
Linearity	Refer "Coupling efficiency [K] characteristics" (Use the flat range of [K] characteristic in the application as the linear sensor)
Current ratio	3000 : 1
Secondary windings resistance	200 $\Omega$ (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	$-20^\circ\text{C} \sim +75^\circ\text{C}$ , $\leq 80\%RH$ , no condensation
Storage temperature	$-30^\circ\text{C} \sim +90^\circ\text{C}$ , $\leq 80\%RH$ , no condensation
Structure	PBT plastic case, fixed with epoxy
Output wire	UL1007 Vinyl wire(AWG26X140L)
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)
Screw torque	0.3N · m
Mass	approximately 30g

- Remark (1) Prepared extension wire separately sold for the extension of output wire. Or, possible to use with connection of any wire after removing the connector
- (2) Impossible to use in outdoor exposure.
- (3) Opening the secondary during turn ON is hazardous and the cause of failure, because of generating high voltage
- (4) Please surely ask to our technical consulting service, if the power measurement is thought.
- (5) 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 )  
 $E_o = K \cdot I_o \cdot R_L / n \text{ (Vrms)}$

### [Frequency characteristics]

