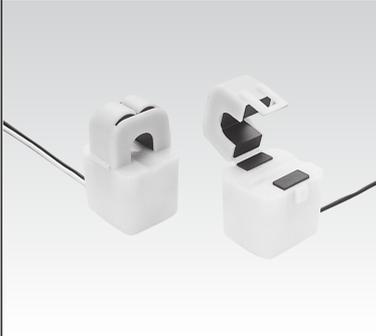


# Split core clamp type sensor

## Ultra small clamp type AC current sensor ( $\phi 10 / 80\text{Arms}$ )

AC current sensor

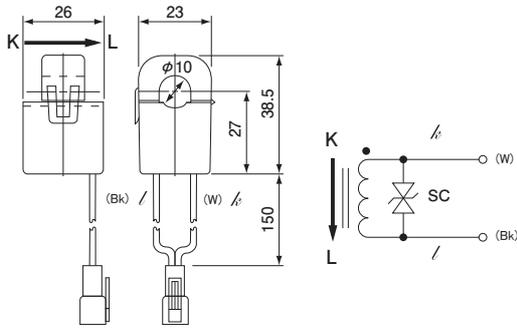


**Model** CTL-10-CLS

**[Features]**

- Nylon spring, one touch clamp type for easy mounting to existing equipment such as panel board
- Possible to interface to system directly such as each type of energy saving enabled device, overload protector, and so on
- Built in over voltage clamped device
- Possible to apply also to the measurement of the secondary side (5A) of CT
- Corresponding to current until 80A max, though ultra small size
- Good linearity and stable phase angle characteristic for small current range of 10mA~1A

**[Outline drawing]**

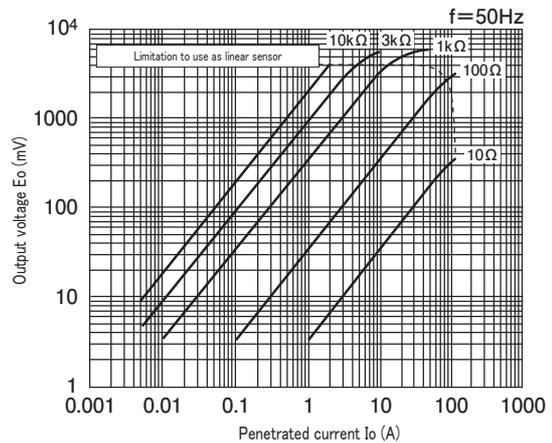


**[Specification] Ta=25°C**

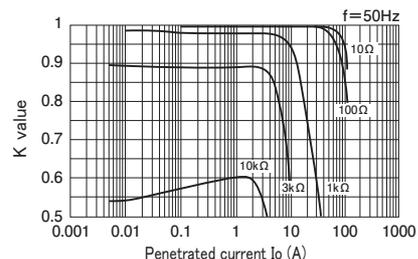
Model	CTL-10-CLS
Primary current	0.01 ~ 80Arms (50 / 60Hz)、 $R_L \leq 10\Omega$
Maximum primary current	120Arms continuous
Saturation limited current	Below dot line in Output voltage characteristic
Output characteristics	1V $\pm$ 2% / 50A (50/60Hz, $R_L=60\Omega$ )
Linearity	$\pm 1\%$ / FS (50/60Hz, $R_L=60\Omega$ )
Current ratio	3000 : 1
Secondary windings resistance	400 $\Omega$ (reference)
Open circuit protection	Built in 7.5Vp clamped device
Withstand voltage	AC1000V(50/60Hz), 1min(between core and output connector terminal in a lump)
Insulation resistance	DC500V, $\geq 100M\Omega$ (between aperture and output connector terminal in a lump)
Operating temperature	-10°C ~ +50°C, $\leq 80\%$ RH, no condensation, for indoor assembly, free direction for setting
Storage temperature	-30°C ~ +90°C, $\leq 80\%$ RH, no condensation
Structure	Nylon case simple closing type Ferrite core in case with clamping structure Nylon hinge and spring method
Fitting repeatability	$\approx 100$ times
Output wire	UL1007 Vinyl wire(AWG22X150L)
Output connector	Pin contact : SYM-001T-P0.6 Receptacle housing : SMR-02V (JST)
Mating connector	Socket contact : SHF-001T-0.8BS Plug housing : SMP-02V-BC、NC (JST) (Not included)
Mass	approximately 45g

- Remark (1) With impacted force on joint surface, there are breakage of ferrite core  
 (2) No tension to wire more than 1kg  
 (3) Preparing extension wire as separately selling for extension of output wire  
 (4) 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.  
 (5) Impossible to use in outdoor exposure.  
 (6) Though voltage clamped  $\pm 7.5\text{Vp}$  with open protection device in the case of wiring during hot line condition accidentally, it is not the acceptance of wiring during open condition, but it is for secondary electrical shock protection.

**[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]**

