

TV1013 Series Microminiature Precision AC Voltage Transformers

LI040V4/2007

1. Features:

- ① Miniature size, high precision; being able to be directly soldered on PCB, easy to use and elegant outline;
- ② Fully-encapsulated, strong mechanical and environmental endurance, strong dielectric strength, safe and reliable

2. Ambient Conditions

- ① Ambient temperature: $-55^{\circ}\text{C} \sim +85^{\circ}\text{C}$;
- ② Relative humidity: $\leq 90\%$ at 40°C ;
- ③ Atmospheric pressure: $860 \sim 1060\text{mbar}$ (about $650 \sim 800\text{mmHg}$);

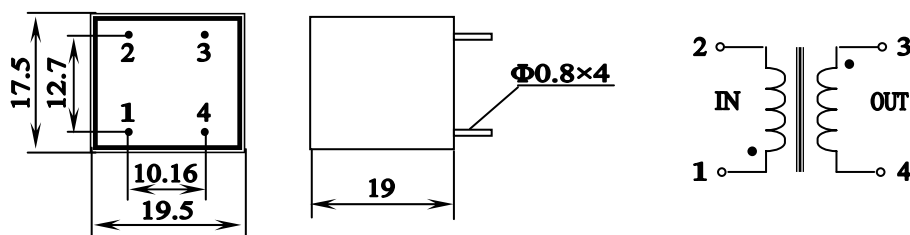
3. Range of working frequency: $20\text{Hz} \sim 20\text{kHz}$;

4. Insulation Rating: Class F (155°C)

5. Safety Features:

- ① Dielectric resistance: $>1000\text{M}\Omega$ in normal condition;
- ② Insulation withstand voltages: $2000\text{V } 50\text{Hz}/1\text{min}$;
- ③ Fire retardancy: In conformity with UL94-Vo.

6. Outline Drawing, Installation Dimension and Coil Diagram



7. Typical usages and technical parameters

TV1013 is actually a current-type voltage transformer. There are two typical usages shown in Fig.1 and Fig.2, respectively. The parameters are listed in Table 1.

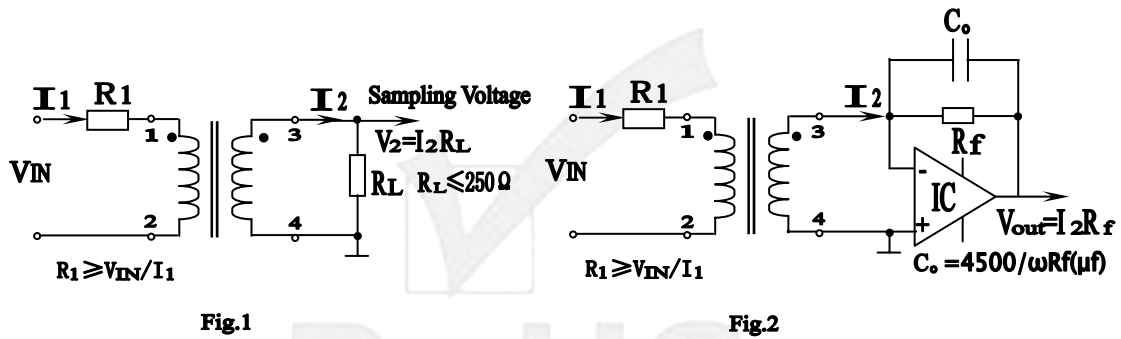


Table 1:

Usage	Model	Input Voltage	Output Voltage	Phase Shift	Non Linearity	Linear Range	Rated Current	Withstand Voltage
Used as in Fig.1	TV1013-1	≤1000Vac	≤0.5Vac	≤30'	≤0.2%	1.5 times of the rated value	2mA/2mA	≥2000V
	TV1013-1M		≤0.625Vac	≤40'	≤0.25%			
Used as in Fig.2	TV1013-1	≤1000Vac	≤1/2 IC's power supply	≤5'	≤0.1%	2 times of the rated value	2mA/2mA	≥2000V
	TV1013-1M			≤5'	≤0.1%			

8. Attention:

This model of voltage transformer is a current-type transformer. Therefore the secondary circuit is disallowed to be an open circuit. By virtue of this reason, DO NOT connect any fuse in the secondary loop.