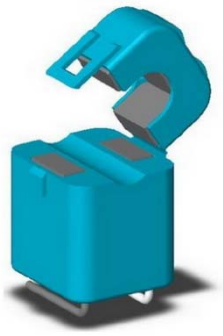
Topstek True RMS Current Transducer TU10P5A..TU10P90A-CL420

TU10P5A~90A-CL420



Features

- ♦ Highly reliable True RMS current measurement device
- ♦ Clamp on split core structure
- ♦ Faster response time than temperature sensing
- ♦ Excellent linearity of the output voltage over a wide input range
- ♦ VFD and SCR type waveforms current measurement
- ♦ 4-20mA True RMS current loop output
- ♦ High isolation voltage between the measuring circuit and the current-carrying conductor (AC3KV)
- ♦ Flame-Retardant plastic case and silicone encapsulant, using UL classified materials, ensures protection against environmental contaminants and vibration over a wide temperature and humidity range

Applications

- ♦ Power measurement, power panel
- ♦ True RMS AC current measurement

Options

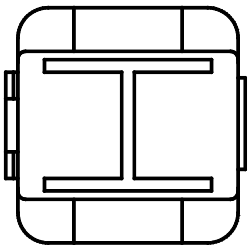
- ♦ Plastic case material:
  UL94V0 Nylon 66 (black) standard and PC(blue) option
- ♦ Operating temperature range:
  70°C standard and option 85°C available
- ♦ Connector type: specify –E or –M. If other types of connector required, please contact factory for other possibilities.
  –M: UL 1017 AWG22, Length:150±10mm with Molex 5045 type female connector (2.54mm pitch)
  –Y: UL 1017 AWG18 Wire, Length:3000±50mm, Two Y4.3 Terminals with PVC Tube

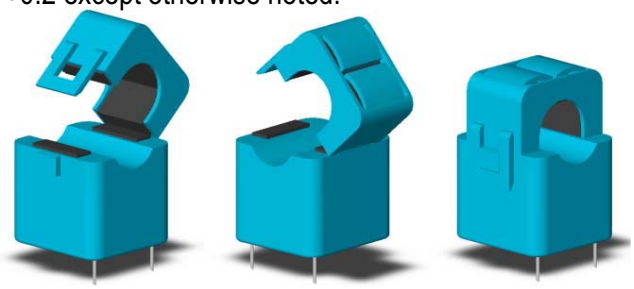
Specifications

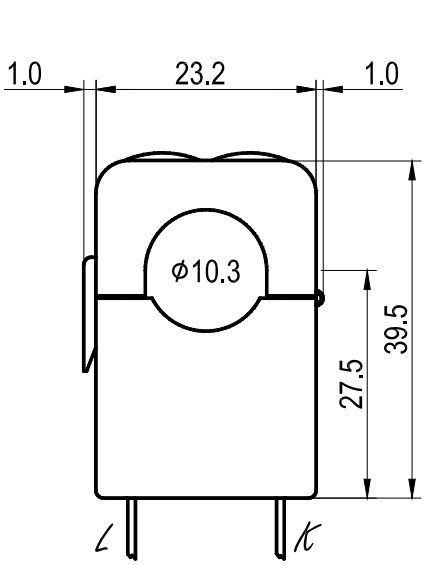
Parameter	Symbol	Unit	5A	7.5A	10A	15A	20A	30A	50A	75A	90A
Full Scale Input Current	I_{PN}	A RMS	5	7.5	10	15	20	30	50	75	90
Max Primary Current Peak	I_{PMax}	A	±30	±45	±60	±90	±120	±180	±250	±250	±250
Input Crest Factor (Peak/Average Ratio)	CF		6	6	6	6	6	6	5	3.3	2.7
Current Output Protocol	I_{OUT}	mA	4-20 mA Current Loop, 4mA@ I_P =0A, 20mA@ I_P = I_{PN}								
Output Offset Current	I_{OS}	mA	+4 mA								
Over-Scale Output Current	I_{OL}	mA	<+23 mA								
Load Resistance	R_L	Ω	<300 Ω								
Supply Voltage	V_{CC}	V	+20V .. +32V								
Accuracy @ I_{PN}		%	Within ±1% of I_{PN} @25°C(excluding offset)								
Linearity	ρ	%	Within ±1% of I_{PN}								
Consumption Current	I_{CC}	mA	4-20 mA (= I_{OUT})								
Response Time (90% I_{PN} Step)	T_r	μsec	<200 msec								
Frequency bandwidth (±1dB)	f_{BW}	Hz	20 to 6kHz								
Thermal Drift of Output	-	%/°C	Within ±0.1 %/°C @ I_{PN}								
Thermal Drift of Zero Current Offset	-	μA/°C	< ±3μA/°C(0-60°C), < ±6μA/°C(-40 .. 70°C)								
Dielectric Strength	-	V	AC3KV X 60 sec								
Isolation Resistance @ 1000 VDC	R_{IS}	MΩ	>1000 MΩ								
Operating Temperature	T_a	°C	-40°C to 70°C								
Storage Temperature	T_s	°C	-45°C to 85°C								
Mass	W	g	58 g								

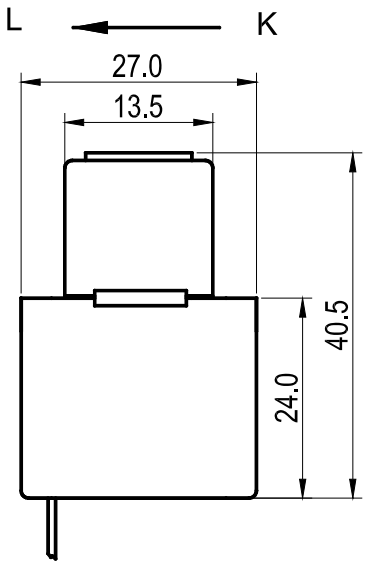
Appearance, dimensions and pin identification of TU10P-CL420

All dimensions in mm ±0.2, holes –0, +0.2 except otherwise noted.



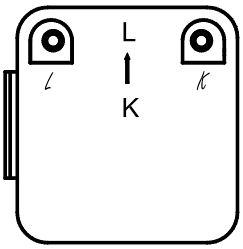


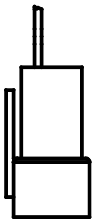


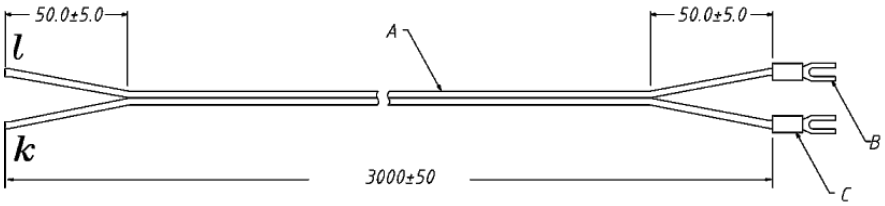


k (white) : +24V
I (black) : IOUT

Standard Terminal







Option Y Terminal

Application Connection