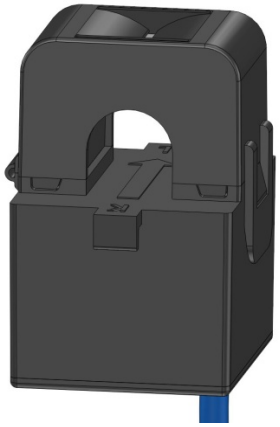
Topstek Current Transducer TU12P10A..TU12P150A-RC5

TU12P10A~150A-RC5



Features

- ♦ DC output AC 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
- ♦ Average 2.5V DC output@Full Scale input, good linearity from 15mV to full scale 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

Options

- ♦ Connector type: If special types of connector required. please contact factory for other possibilities.
  – UL 1007 AWG22, Length:150±10mm with Molex 5045 type female connector (2.54mm pitch)
  -- Audio mini jack(Stereo type)
  -- JST PHR-3

Applications

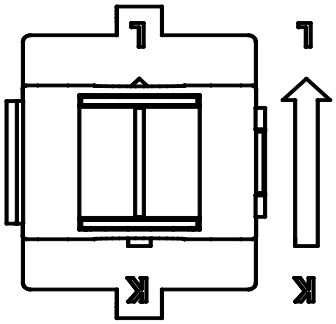
- ♦ Power measurement, power panel
- ♦ RMS AC current measurement

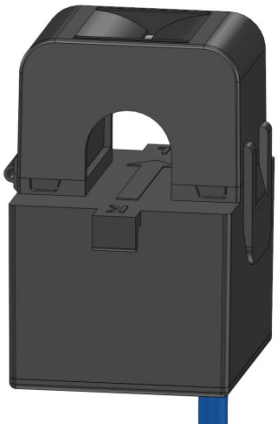
Specifications

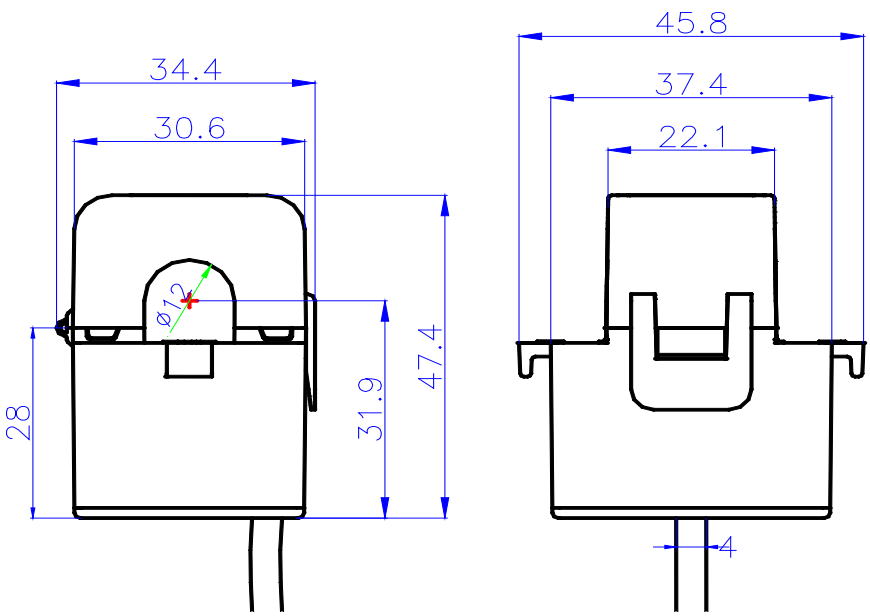
Parameter	Symbol	Unit	10A	15A	25A	40A	50A	60A	100A	150A
Full Scale Input Current	I_{PN}	A RMS	10	15	25	40	50	60	100	150
Max Primary Current Peak	I_{PMax}	A	±20	±30	±50	±80	±100	±120	±200	±300
Input Crest Factor (Peak/Average Ratio)	CF		1.414@ V_{CC}=+5V 1.69@ V_{CC}=+6V							
Voltage Output Protocol	V_{OUT}	V	0V to V_{CC} Voltage Output (R_L=10kΩ) $0V_{DC}$@ I_P =0A, $2.5V_{DC}$ @ I_P = I_{PN}							
Zero Current Output Offset Voltage	V_{OS}	mV	<+15 mV							
Over-Scale Output Voltage	V_{OL}	V	< Vcc							
Output Resistance	R_{OUT}	Ω	50Ω							
Load Resistance	R_L	Ω	> 5KΩ							
Supply Voltage	V_{CC}	V	+5V to +6V							
Accuracy @ I_{PN}		%	Within ±1% of I_{PN} @25°C(excluding offset)							
Linearity	ρ	%	Within ±1% of I_{PN}							
Consumption Current	I_{CC}	mA	< 2 mA							
Response Time (90% I_{PN} Step)	T_r	msec	<250 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	< ±1mV/°C(0-60°C), < ±2mV/°C(-40 .. 70°C)							
Dielectric Strength	-	V	AC3.5KV 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	80 g							

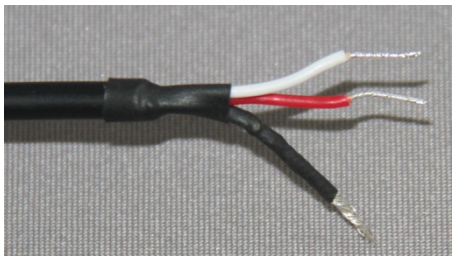
Appearance, dimensions and pin identification of TU12P-RC5

All dimensions in mm ±0.5, holes –0, +0.5 except otherwise noted.



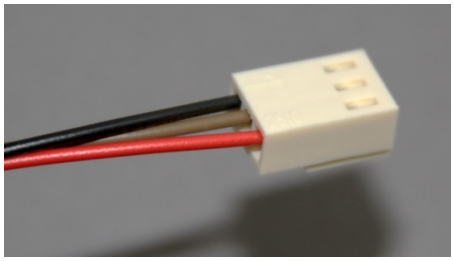






Output Cable Option J3:
White : VOUT
Red : +5V
black : GND/0V

Output Cable Option A:
Center : +5V
Middle : VOUT
Outer: GND/0V



Output Cable Option M3:
1 Black : GND/0V
2 Brown : VOUT
3 Red : +5V