

Topstek Current Transducer TU12P10A..TU12P150A-RC5

TU12P10A~150A-RC5

Features

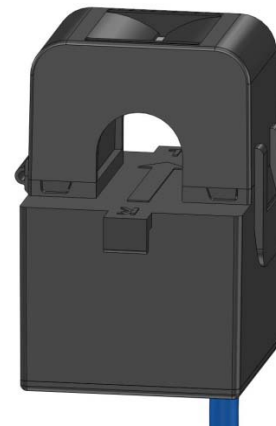
- ◆ DC output AC current measurement device
- ◆ Clamp on split core structure
- ◆ Faster response time than temperature sensing
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ VFD and SCR type waveforms current measurement
- ◆ Average 2.5V DC output@Full Scale input, good linearity 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

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 ($R_L=10k\Omega$) 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	< V_{CC}							
Output Resistance	R_{OUT}	Ω	50 Ω							
Load Resistance	R_L	Ω	> 5K Ω							
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	-	$\mu A/^\circ C$	< ±1mV/°C(0-60°C), < ±2mV/°C(-40 .. 70°C)							
Dielectric Strength	-	V	AC1KV X 60 sec							
Isolation Resistance @ 1000 VDC	R_{IS}	M Ω	>1000 M Ω							
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							



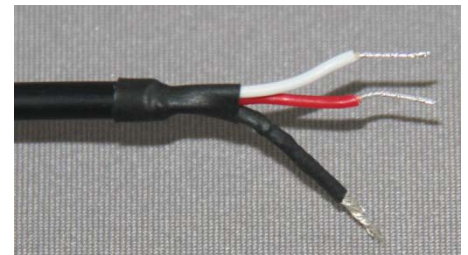
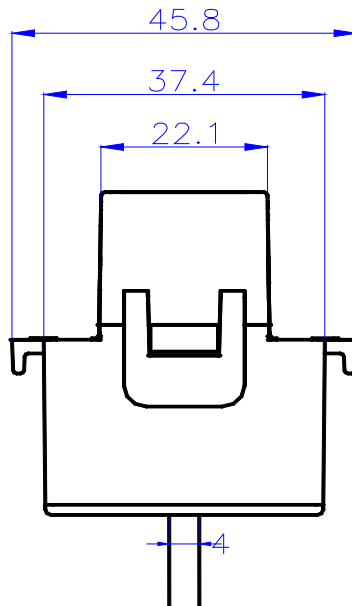
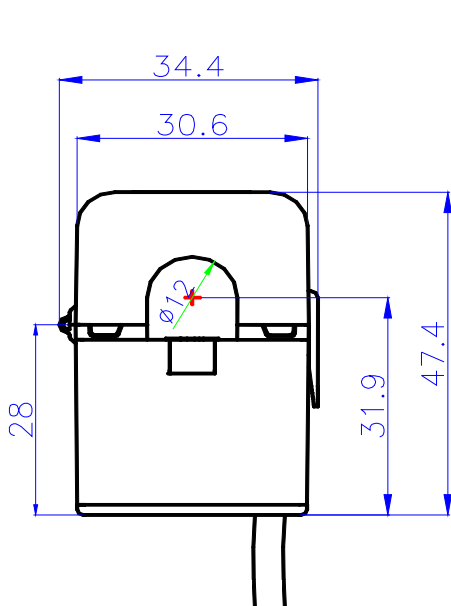
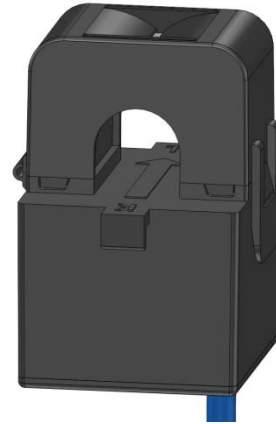
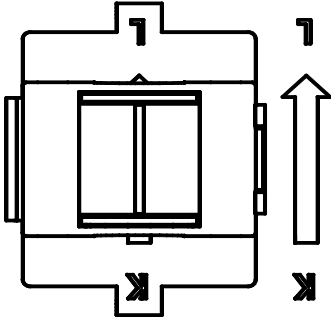
Options

- ◆ 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

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Appearance, dimensions and pin identification of TU12P-RC5

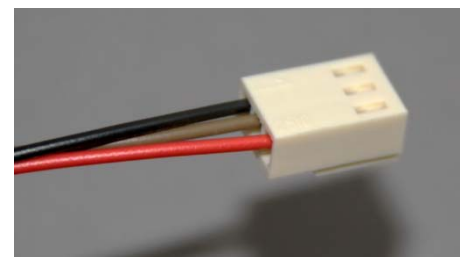
All dimensions in mm ± 0.5 , holes $-0, +0.5$ except otherwise noted.



Output Cable Option J3:
 White : V_{OUT}
 Red : +5V
 black : GND/0V



Output Cable Option A:
 Center : +5V
 Middle : V_{OUT}
 Outer: GND/0V



Output Cable Option M3:
 1 Black : GND/0V
 2 Brown : V_{OUT}
 3 Red : +5V