

Topstek True RMS Current Transducer TU12P5A..TU12P150A-CL420

TU12P 5A~150A-CL420

Features

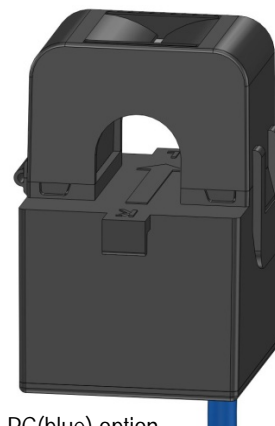
- ◆ Highly reliable True RMS current measurement device
- ◆ Clamp on split core structure
- ◆ Faster response time than temperature sensing
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ VFD and SCR type waveforms current measurement
- ◆ 4-20mA True RMS current loop output
- ◆ 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+DC current measurement

Specifications

| Parameter | Symbol | Unit | 5A | 10A | 20A | 30A | 50A | 75A | 100A | 150A |
|---|------------|------------------|--|-----|------|------|------|------|------|------|
| Full Scale Input Current | I_{PN} | A _{RMS} | 5 | 10 | 20 | 30 | 50 | 75 | 100 | 150 |
| Max Primary Current Peak | I_{PMax} | A | ±30 | ±60 | ±120 | ±180 | ±300 | ±450 | ±450 | ±450 |
| Input Crest Factor (Peak/Average Ratio) | CF | | 6 | 6 | 6 | 6 | 6 | 6 | 4.5 | 3 |
| 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 | 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 | | | | | | | |



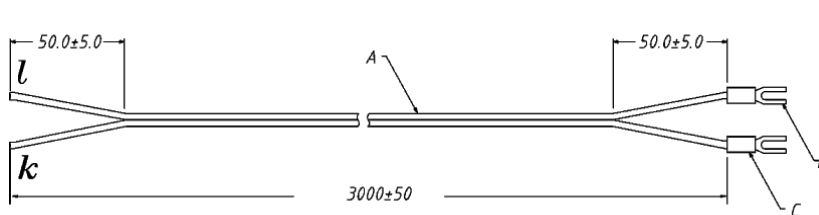
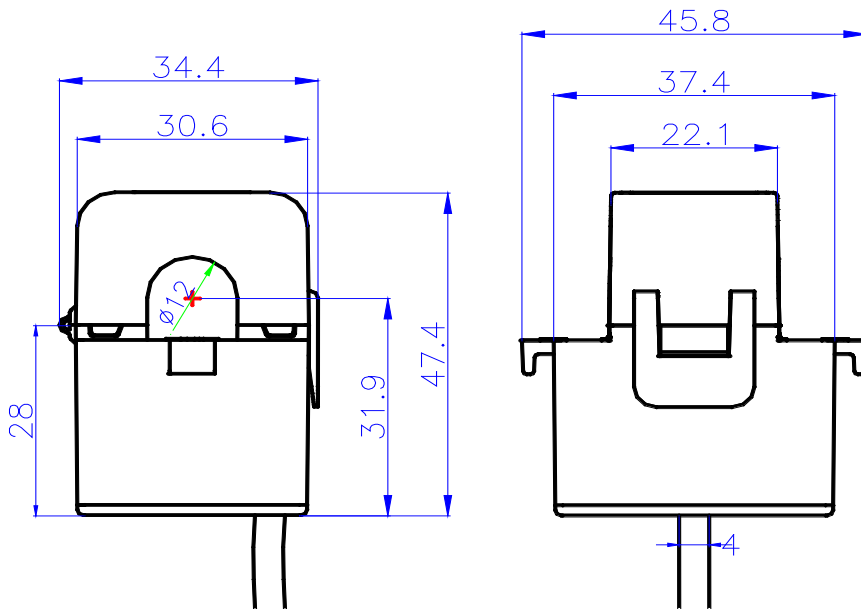
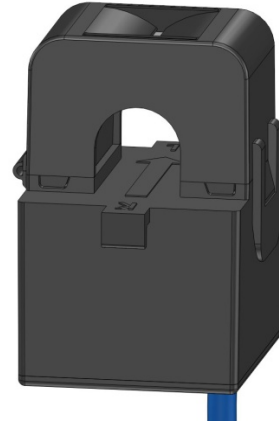
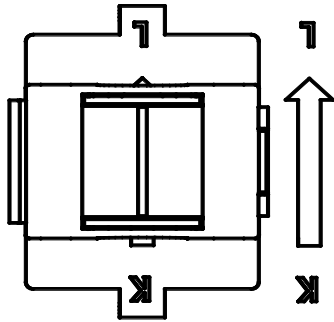
Options

- ◆ 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

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Appearance, dimensions and pin identification of TU16P-CL420

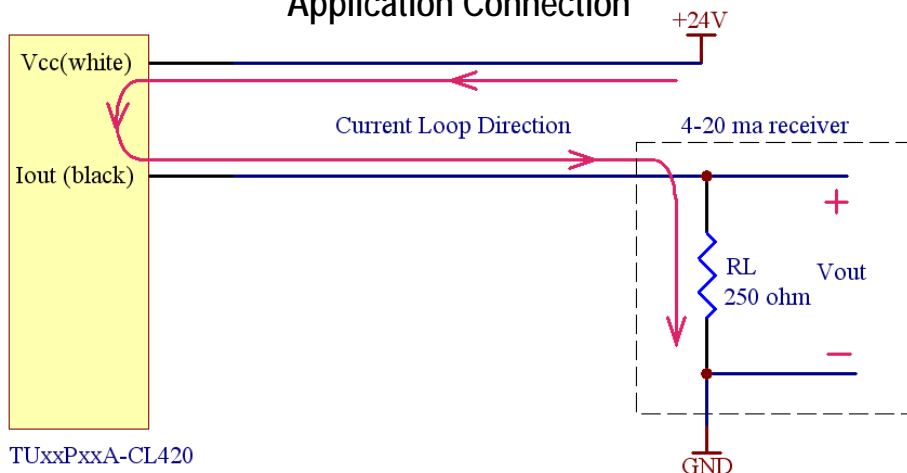
All dimensions in mm ± 0.5 , holes $-0, +0.2$ except otherwise noted.



k (white) : +24V
I (black) : I_{OUT}

Option Y Terminal

Application Connection



TUxxPxxA-CL420





Additional Information :

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