

## Open Loop Current Sensor

### ELECTRICAL DATA/INPUT :

Primary Nominal R.M.S. Current Ir(A)	Primary Current Measuring Range Ip(A) at Vcc=±15V	Part Name Type	Part Number
3~50	±Ir*3	NCTL0030~NCTL0500	CT012BXXXXXX
Vcc	Supply Voltage		±15V ±5%
Ic	Current Consumption		<20mA
Iis	R.M.S. Voltage for 2.5KVAC Isolation test, 50/60Hz, 1min		<10mA
Ris	Isolation Resistance at 500 VDC		>500Mohm

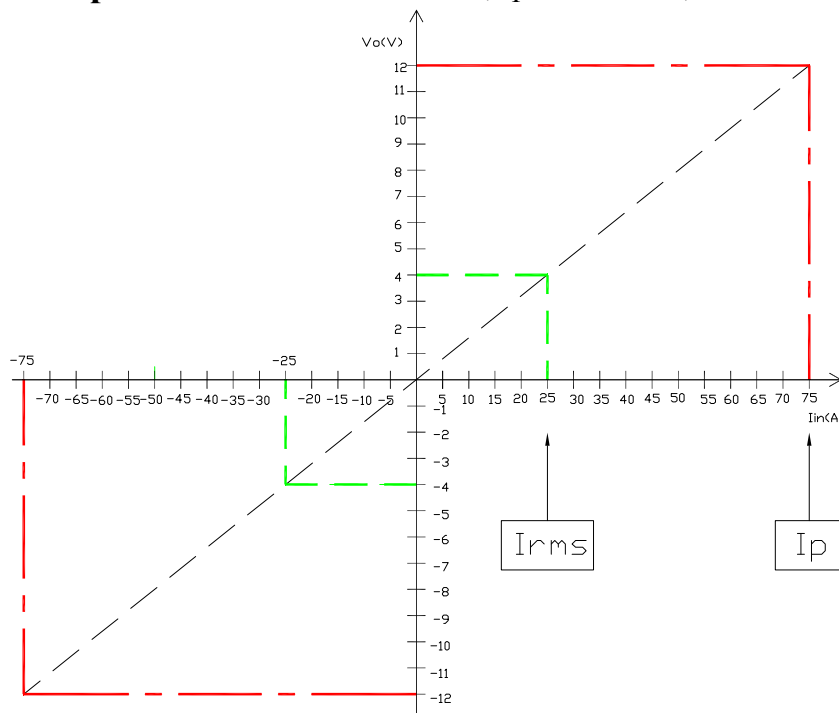
### ELECTRICAL DATA/OUTPUT

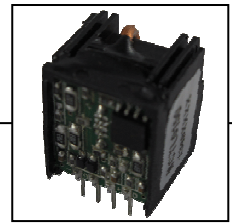
Vout	Output voltage at Ir , TA=25°C	4V±1%
Rout	Output Impedance	<150 ohm
RL	Load Resistor	>10Kohm
X	Accuracy at Ir , TA=25°C (without offset)	<±1%
EL	Linearity from 0 to Ir , TA=25°C	<±1%
Voe	Electrical Offset Voltage , TA=25°C	<±40mV
Vom	Magnetic Offset Voltage (Ir→0)	<±15mV
Vot	Thermal Drift of Offset Voltage	<±1.5mV/°C
T.C.	Thermal Drift (-10°C to 50°C)	<±0.1%/°C
Tr	Response Time to 90% of Ir(f=1KHz)	<3us
FB	Frequency Bandwidth (-3dB)	50KHz

### GENERAL DATA :

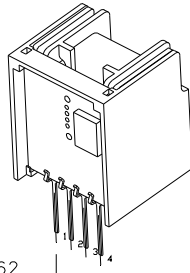
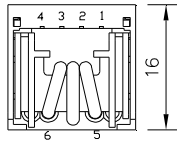
TA	Ambient Operating Temperature	-25 ~ +85°C
Ts	Ambient Storage Temperature	-25 ~ +85°C

**Output voltage v.s. Input current:** Ex: Irms=25A ; Ip=25\*3=75A, Vcc=±15V(Dual power)



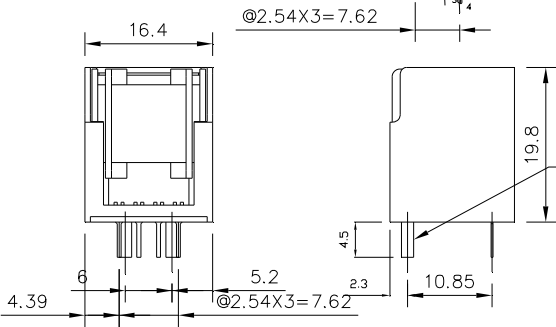


## Outline dimension & Pin definition (all tolerance:±0.5mm)



### Terminal Pin Identification

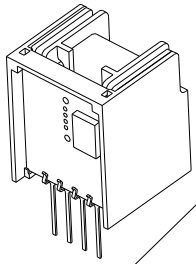
- 1. V-
- 2. Ground
- 3. V+
- 4. Output
- 5. Coil Input +
- 6. Coil Input -



### Primary Conductor Terminal

NCTL0030	∅0.6	CTL185A	∅1.6
NCTL375B	∅0.6	CTL0200	∅1.6
NCTL0040	∅0.6	CTL0250	∅1.6
NCTL0050	∅0.8	CTL0300	∅1.6
NCTL625B	∅0.8	CTL0350	∅1.6X2
NCTL075A	∅1.0	CTL375A	∅1.6X2
NCTL0100	∅1.0	CTL0400	∅1.6X2
NCTL125A	∅1.6	CTL0450	∅1.6X2
NCTL0150	∅1.6	CTL0500	∅1.6X2

## Marking & Description



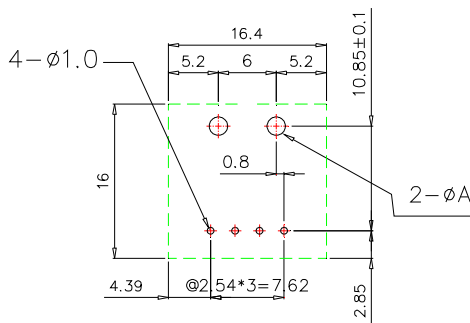
NCTL0040

- Nominal Input Current exp.: B=>-2; A=>-1; 0~9
- Nominal Input Current value
- Ex: (1) 004-0=4x10<sup>0</sup>=4 (Amp)
- (2) 075-A=75x10<sup>-1</sup>=7.5 (Amp)
- CTL: Current Transducer (Square type L)
- N: NEW LAYOUT

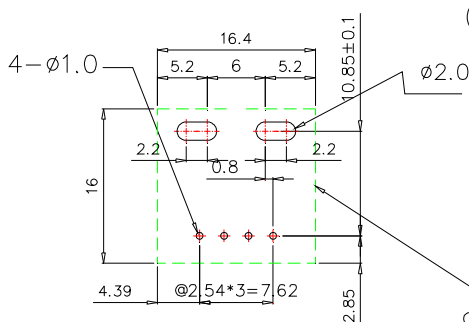
1225XXXX

- Manufacture Series Number
- 25: Week 25th
- 12: Year 2012

## Layout Recommend:



(3~30A)



(35~50A)

Part Name	∅A(mm)
NCTL0030	∅1.0
NCTL375B	∅1.0
NCTL0040	∅1.0
NCTL0050	∅1.2
NCTL625B	∅1.2
NCTL075A	∅1.4
NCTL0100	∅1.4
NCTL125A	∅2.0
NCTL0150	∅2.0
NCTL185A	∅2.0
NCTL0200	∅2.0
NCTL0250	∅2.0
NCTL0300	∅2.0