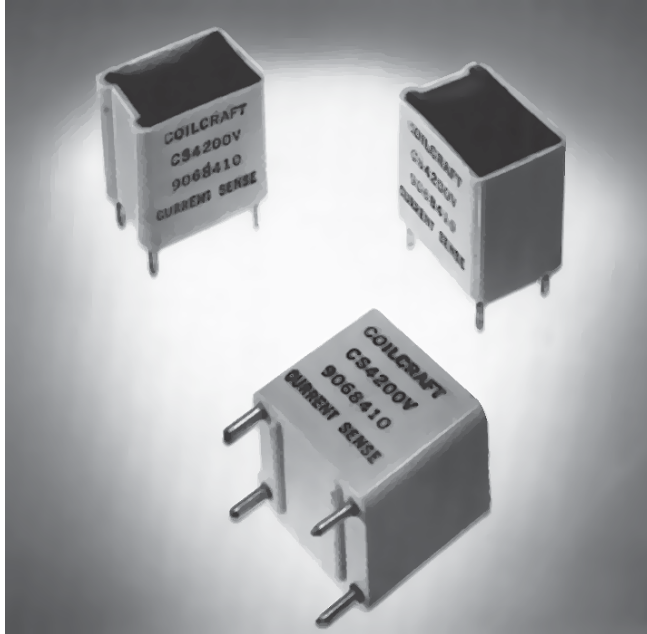


Current Sensing Transformers



These low cost Coilcraft current sensing transformers are designed for use up to 100 kHz. They incorporate the current and sense windings in one small, encapsulated package requiring minimum board space.

Varying the terminating resistance allows sensitivities of 1 to 100 Volts output per Ampere input.

Coilcraft current sensing transformers are designed to provide 6 mm creepage/clearance between primary and secondary windings

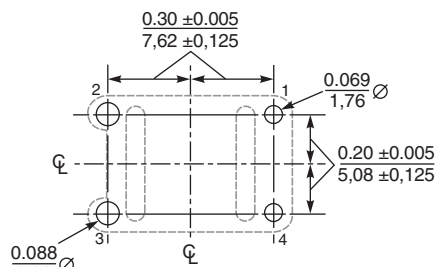
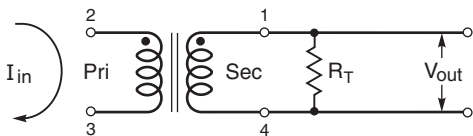
Applications include feedback control, overload sensing, detecting load drop or shutdown, and proportional output.

Coilcraft **Designer's Kit P403** contains the three standard current sensing transformers, sensor-only versions of each, plus two 50/60Hz current sensors. To order, contact Coilcraft or visit <http://order.coilcraft.com>.

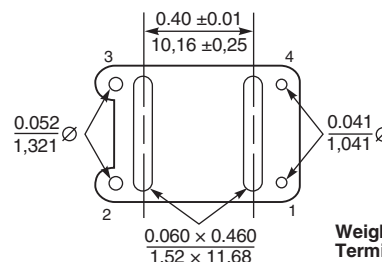
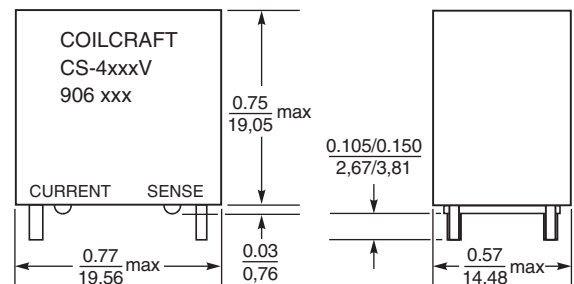
| Part number | Turns (N) pri : sec | Inductance ¹ min (mH) | Frequency range ² (kHz) | Sensed current range I_{in} | Terminating resistance R_T ³ range (Ohms) | R_T for 1 V_{out} from 1 A I_{in} |
|-------------|---------------------|----------------------------------|------------------------------------|-------------------------------|--|---|
| CS4050V-01L | 1 : 50 | 5 | 5 – 25 | 2 mA – 10 A | 50 – 5000 | 50 Ohms |
| CS4100V-01L | 1 : 100 | 20 | 5 – 50 | 5 mA – 24 A | 100 – 10,000 | 100 Ohms |
| CS4200V-01L | 1 : 200 | 80 | 1 – 100 | 5 mA – 35 A | 200 – 20,000 | 200 Ohms |

1. Inductance is for the secondary, measured at 15.75 kHz, 1 Vrms.
2. Square wave response deteriorates above and below this frequency.
3. Varying terminating resistance increases or decreases output Voltage/Ampere according to the following equation: $R_T = V_{out} \times N_{sec} / I_{in}$
4. Operating temperature range -40°C to $+85^\circ\text{C}$.
5. Electrical specifications at 25°C .

Typical Circuit



Recommended PC Board Layout



Weight: 8.8 – 9.3 g
Terminations: Tin-silver over copper
Packaging: 28 per tube

Coilcraft®

Specifications subject to change without notice.
 Please check our website for latest information.

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