



suparule



## Planar Magnetic Current Sensor

- High accuracy
- Non-invasive
- Does not saturate like the Current Transformer
- Lightweight
- Inexpensive to manufacture

### DESCRIPTION

Suparule Systems Ltd. has developed a new unique technology for the measurement of ac current, called the Planar Magnetic Current Sensor.

The patented technology involves the detection and measurement of the magnetic field associated with the current being measured. This magnetic field is directly proportional to the magnitude of current flowing.

### ADVANTAGES

#### Accuracy

The device is much more accurate than existing sensor methods such as shunts, current transformers, or Rogowski Coils.

#### Low Cost

The device consists of a standard PCB material only, and can be manufactured at considerably lower cost than existing sensors such as Current Transformers and Rogowski Coils.

#### Measurement Range

Because the sensor does not contain a magnetic core material, it cannot become saturated, and therefore can be used to measure a much wider range of current than existing core based sensors.

#### Non-invasive

Because of the design of the sensor, it can be placed in position around the conductor being measured, without breaking the conductor. This facilitates applications where current cannot be shut-off prior to measurement.

#### Low Power use

As the sensor is not part of the circuit being measured, there is little or no power consumed in comparison to other current sensors e.g. Shunt.

#### Lightweight

Because the sensor does not contain an iron core or similar such core, the weight of the device is considerably less than of a comparable current transformer.

#### Interference Rejection

The design includes a unique method of rejecting the effects of external magnetic fields. Therefore, the device can be used in close proximity to other current carrying conductors without effecting the accuracy.

### APPLICATIONS

- Power Consumption Meter
- Hand-held Meter
- Alternative to CT
- Current Clamp
- Fault Indicators and trip switches
- Power Quality Analysis Instrumentation

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