HALL EFFECT - Open Loop Technique

Measurement Principle

How does it work?

The magnetic flux created by the primary current \( I_p \) is concentrated in a magnetic circuit and measured using a Hall device. The output from the Hall device is then signal conditioned to provide an exact representation of the primary current.

Key Features

• Battery and/or External power
• Auto / External zero
• Single / Multi range
• 11/ 25/ 32 mm diameter jaws

Performance

• 1% Accuracy, 100 mA Resolution
• Capability to measure down to 0.5A
• DC to 10 kHz
• Measuring Range up to 2000 A
HALL EFFECT - Closed Loop Technique

Measurement Principle

How does it work?
The magnetic flux created by the primary current ($I_p$) is balanced through a secondary coil using a Hall device and associated electronic circuit. The compensating current is an exact representation of the primary current.

Key Features
- Battery / External power
- Manual / Auto / External zero
- Single Range / Multirange
- 11/25/32 mm diameter jaws

Performance
- 1% Accuracy, 1mA Resolution
- Capability to measure down to 10 mA
- DC to 100 kHz Bandwidth
- Measuring Range up to 200 A
FLUXGATE - Closed Loop Technique

Measurement Principle

How does it work?
The fluxgate is driven by an AC signal that modulates the external DC flux. After suitable signal conditioning an output proportional to primary current is generated.

Key Features
- External power
- External zero
- Single range
- 25 mm diameter jaws

Performance
- 1% Accuracy, 100 µA Resolution
- Superior stability with time and temp.
- Capability to measure down to 1 mA
- Measuring Range up to 200 A