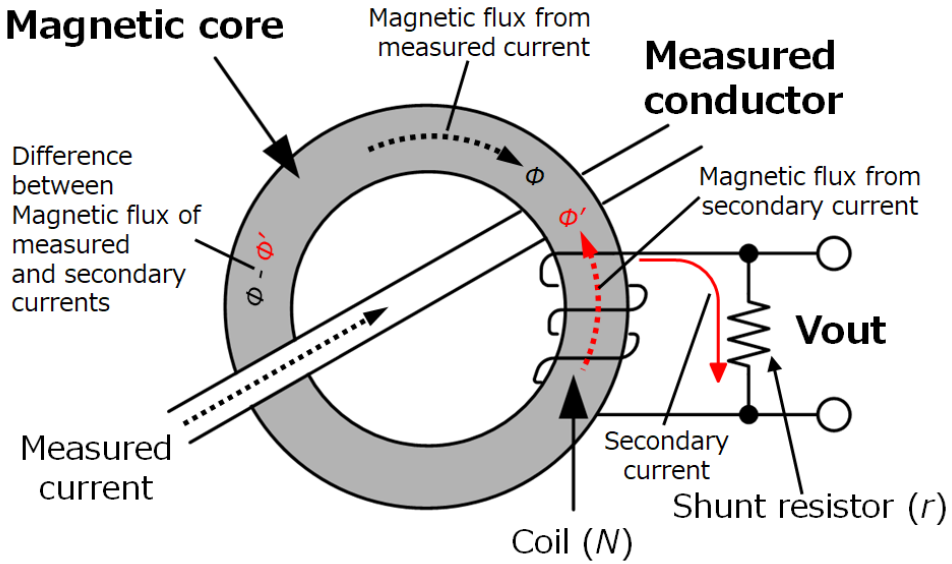
Details of Current Sensors by Operating Principle
① Current Transducer (CT) Method (AC only)

Characteristics

- No power source required (for current sensing function)
- Affordable
- Dedicated to AC (DC not supported)
- Popular with clamp meters used for low energy management in buildings



Measurement Principle

- A magnetic flux (Φ) is induced in the magnetic core due to the flow of the alternating current (AC) being measured. A secondary magnetic flux (Φ') is induced in the secondary coil (N) as a reaction to this primary flux in an effort to cancel it out. A secondary AC current is also induced in proportion to the secondary magnetic flux (Φ').
- This secondary current flows through the shunt resistor and voltage difference occurs between both sides of the resistor. This voltage is proportional to the current flowing through the measured conductor.

Hioki CT Method (AC only) Sensors

CT7126, CT7131, CT7136, CT7116, 9694, 9660, 9661, 9669, 9675, 9657-10, 9661-01, 9695-02, 9695-03, 9010-50, 9132-50, 9018-50, 9650, 9651, 9298, 9291

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