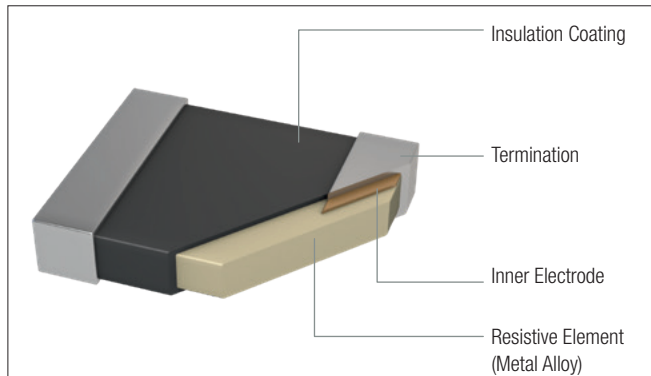


# Types of Resistors and Selection

## Which Type of Resistors do I need?

### Metal Plate Resistors



- Current detection of a few tens of amperes
- Ultra low resistance values (up to 10 mΩ)

#### Features

- Superior abilities in case of power, temperature characteristics, linearity, accuracy and current-noise suppression level
- Stability and robustness make them suitable for current sensing applications

#### Construction

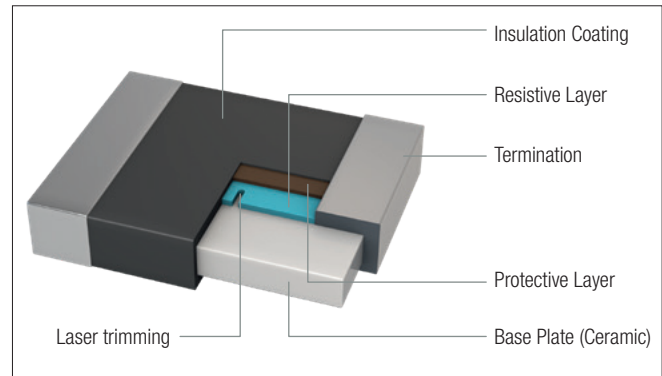
- Consists of a metal plate as core material
- Metal plate is covered with an isolated layer
- Termination consists from the inside out of a copper, nickel and tin layer

#### Available Product Series

Standard Terminal:

- WRIS-PSMB – Enhanced Current Sensing (max. 0.5 W)
- WRIS-PSMC – High Power Current Sensing (max. 2 W)

### Thick Film Resistors



- Current detection of small current levels
- Low to mid level resistance values (a few hundred mΩ up to a few Ω)

#### Features

- For applications with general purpose and less precise low current measurements
- High cost efficiency, but less accurate as Metal Plate Resistors

#### Construction

- Consists of a ceramic body as basis
- On one site of the ceramic body is a printed metal layer
- Metal layer is trimmed down by laser to the desired resistance value
- Part is coated with an isolated layer

#### Available Product Series

Standard Terminal:

- WRIS-KSKE – General Purpose Current Sensing (max. 1 W)

Wide Terminal:

- WRIS-KWKH – High Power Current Sensing (max. 1 W)
- WRIS-KWKB – High Power (max. 2 W)

## Derating curves

