

5 A student measures the current and the potential difference for a resistor in a circuit.

$$\text{current} = (50.00 \pm 0.01)\text{mA}$$

$$\text{potential difference} = (500.0 \pm 0.1)\text{mV}$$

The measurements are used to calculate the resistance of the resistor.

What is the percentage uncertainty in the calculated resistance?

A 0.0002%

B 0.0004%

C 0.02%

D 0.04%