

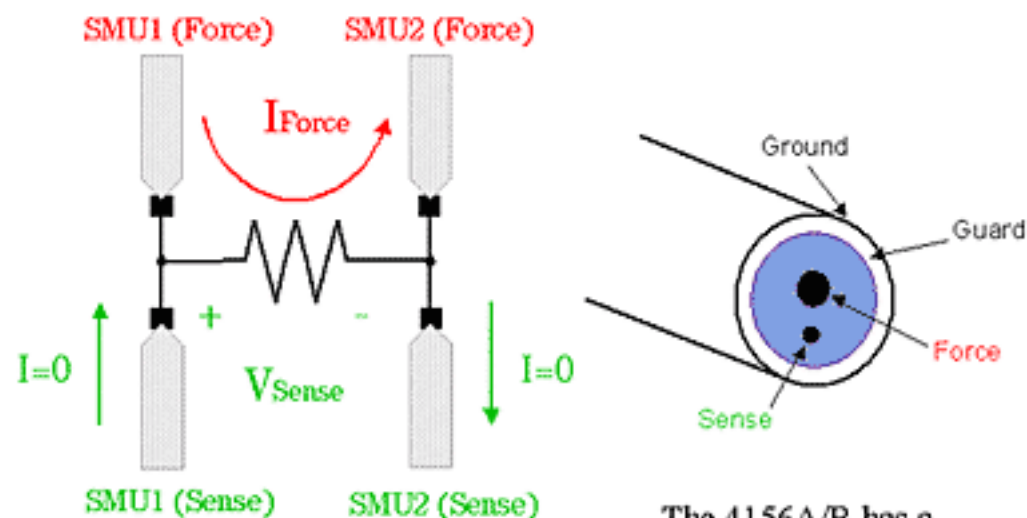
## What Is a Kelvin Measurement?

Question:

What is a Kelvin measurement?

Answer:

A Kelvin measurement is a 4 terminal measurement. Two of the terminals are used to source and sink current. The other two terminals are used to measure voltage. Since the measurement terminals are high-impedance inputs with no current flow, there is no IR voltage drop in the measurement lines to invalidate the voltage measurement. Thus, Kelvin measurements are typically required when the cable resistance is comparable to the resistance being measured. The figure below shows how Kelvin measurements work on the 4156A/B (the 4142B is similar):



The 4156A/B has Kelvin outputs (separate force and sense outputs)

The 4156A/B has a special triaxial Kelvin cable available