

Dual measurement connections for voltage, period/frequency and current measurements for SDM3000 series DMMs

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The SDM3000 series of Digital Multimeters feature dual measurement capability.

This means that the instrument can alternate between two measurements and simultaneously display both values.

Here are the functions that qualify for dual measurements:



Here is an example of the display of an SDM measuring DCV and DCI using the dual measurement technique:



For voltage, period, and frequency measurements that also include current, please use this connection scheme:



NOTE: The resistance of the test leads and the internal resistance of the ammeter (current measurement) will add error to the measurement using this technique.

WARNING: The dual measurement process uses an internal relay to switch the input signal. The relay lifetime will be shortened by using this feature and it is not recommended for tests that require a large number of measurements (automated testing, as an example). This relay is also engaged when switching between voltage and current functions with switchcard (-SC) models. The relay lifetime is estimated at 100k switches.



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