HIOKI

Even if you mistakenly

measure voltage using the resistance range

Erroneous circuit-breaker activation

Arcing and sparks

Prevent Hazards

DT4223 DT4224

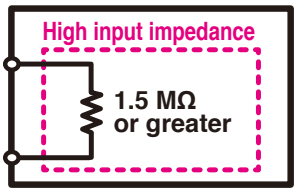
It's extremely dangerous to measure a commercial power supply with an instrument set to the resistance range (used to measure continuity, capacitance, and diodes). Doing so can cause electrical equipment to stop operating due to tripped circuit breakers or result in arcing. Hioki's new Digital Multimeter DT4223/DT4224 prevents potential hazards that can be caused by erroneous instrument operation with a new, one-of-a-kind design.

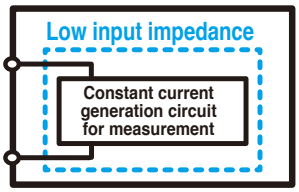
World's first! Avoid hazards with Hioki's proprietary non-circuit-breaker-tripping design

Conventional measurement

Voltage range measurement circuit

Resistance range measurement circuit



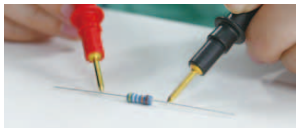


Switch to resistance range ▶ Switch measurement circuit

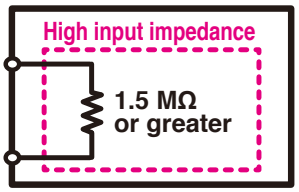
Because changing the measurement range also changes the measurement circuit, mistakenly inputting voltage with the instrument set to the resistance range will cause a large current to flow to the device, leading to hazards such as tripped circuit breakers and arcing.

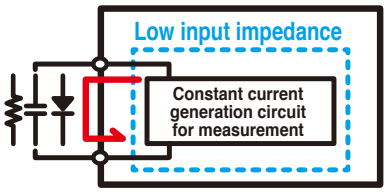
Measuring with Hioki's non-circuit-breaker-tripping design

Resistance range measurement circuit



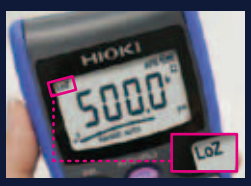
Input-based switching of the measurement circuit





Switch to resistance range ▶ Detect input ▶ Switch measurement circuit

The measurement circuit is switched after the instrument detects resistance, continuity, capacitance, or diode input. Even if you mistakenly input voltage with the instrument set to the resistance range, the high input impedance will limit the current flowing to the instrument to 1.5 mA or less to prevent potential hazards.



Detection results are indicated with a LoZ icon so that you can check which measurement circuit is being used.

When the instrument detects resistance, continuity, capacitance, or diode input, the LoZ icon is shown on the display, allowing you to identify at a glance which measurement circuit has been selected.

Warning function notifies you of incorrect input.

The instrument's display flashes red to warn you when voltage has been mistakenly input while the instrument is set to the resistance range.

New features for greater ease of use

-10°C to 65°C operating temperature range

The instrument can now be used in a greater range of environments, including at subzero temperatures and on scorching hot summer days.

Auto hold for easy checking of the display

The display value is automatically held once measured values stabilize. By letting you check measured values without the need to press a button, this feature is useful in settings where your hands are otherwise occupied.

Visual warning function

A red backlight warns you of excessive voltage input, facilitating visual confirmation in noisy settings.

Specifications

(Typical ranges are indicated; may not reflect maximum or minimum measurable signal)

Measurement items	DT4223	DT4224
DC voltage	600.0 mV to 600.0 V	600.0 mV to 600.0 V
AC voltage	6.000 V to 600.0 V	6.000 V to 600.0 V
Resistance	600.0 Ω to 60.00 MΩ	600.0 Ω to 60.00 MΩ
Capacitance	n/a	1.000 µF to 10.00 mF
Frequency	99.99 Hz to 9.999 kHz	99.99 Hz to 9.999 kHz
Continuity check	Yes	Yes
Diode check	n/a	Yes
Voltage detection	Yes	n/a
AUTO AC/DCV	Yes	n/a

Basic Characteristics	DT4223 / DT4224
Display count	6000
DCV basic accuracy	0.5 %rdg. ±5 dgt.
True RMS	Yes
Safety standard categories	CAT III 600V / CAT IV 300V

Additional Functions	DT4223	DT4224
Back light	Yes	Yes
Drop proof	Yes	Yes

Pocket models
DT4221 / DT4222

Featuring a compact body for ergonomic hold and a reliable, safe design

Standard models
DT4252 / DT4253 / DT4254 / DT4255 / DT4256

Introducing a line of field-optimized instruments that can be selected based on the application at hand

High-end models
DT4281 / DT4282

Featuring high accuracy, extensive additional functionality, and a broad range of measurement parameters

HIOKI
HIOKI E.E. CORPORATION