

RCL Meters

Versatile component measurement and testing

Testing passive electronic components is much easier with RCL meters from Fluke. Just connect your component to the test fixture and in less than a second, you'll see all you need to know on a large, easy to read LCD display. The Fluke accessories for SMD testing allow fast, convenient and accurate characterization of SMD components. Choose the instrument model that best meets your performance and budget requirements.



Features

- Easy to use, at-a-glance display
- Computer-aided component testing
- Component Binning
- RS-232 or IEEE-488 interfaces
- Internal or external bias
- DC test measurement option
- Nine front panel set-ups
- Actual component test voltage/current readback
- Automatic zero trimming
- Contact check and deviation mode (PM 6306 only)
- Front panel test posts for immediate 4-wire measurements

PM 6303A

The PM 6303A is quick and simple to operate, on the manufacturing floor as a quality assurance tool or in the service lab for quick tests of a wide variety of components. Its simple operation and 0.25 % basic accuracy make the PM 6303A equally at home in the classroom for education and training environments.

PM 6304

If you want a user-friendly instrument and remote programmability, consider the Fluke PM 6304 RCL meter. The PM 6304 has a basic accuracy of 0.1 %, 3 test voltage levels, and 204 test frequencies up to 100 kHz.

PM 6306

The PM 6306 is the most flexible RCL meter and allows testing with any frequency up to 1 MHz. The AC and DC test voltages are continuously adjustable and the instrument offers a built-in contact check to ensure optimum connection. With these capabilities, you can handle a wider variety of components and under more realistic test conditions.

SW63 ComponentView test software for PM 6306 and PM 6304

This Windows® software package provides powerful functions for the analysis of test results downloaded via the RS-232 or IEEE interface. All functions of the RCL meter and bus parameters can be controlled remotely from the PC. The powerful scan mode allows components or devices under test to be measured automatically at different frequencies or voltages.

RCL Meters

Technical specifications

| | PM 6303A | PM 6304 | PM 6306 |
|---|--------------------------------------|-----------------------------------|-----------------------|
| Frequency range | 1 kHz | 50 Hz - 100 kHz | 50 Hz - 1 MHz |
| AC test signal level | 2 V (via 400 Ω) | 50 mV & 1 V (via 100 Ω) | 50 mV-2 V (via 100 Ω) |
| Impedance/Resistance Z or R ^{ac} | 0.0000 Ω to 200 MΩ Res. 1 mΩ | 0.0000 Ω to 200 MΩ Res. 0.1 mΩ | |
| Resistance DC RDC | - | 0.0000 Ω to 50 MΩ Res. 0.1 mΩ | |
| Capacitance C | 0.0 pF to 100 mF31.8F Res. 0.1 pF | 0.00 pF to 31.8F Res. 0.01 pF | |
| Inductance L | 0.0 μH to 32 kH Res. 0.1 μH | 0.00 μH to 637 kH Res. 0.01 μH | |
| Quality factor Q | 0.002 to 500 Res. 0.001 | 0.000 to 1000 Res. 0.001 | |
| Dissipation factor D | 0.002 to 500 Res.0.001 | 0.000 to 1000 Res. 0.001 | |
| Phase angle Φ | -90.0 to +90.0 Res. 0.1 deg | -179 to +180 deg Res. 0.1 deg | |
| Voltage monitor VX | - | 0.1 μV to 2.00 V Res. 0.1 μV | |
| Current monitor IX | - | 0.005 μA to 10.0 mA Res. 0.001 μA | |
| DC test mode (Option) | - | 300 mV, 1 V, 2 V | 50 mV - 2 V |
| DC bias Internal | 2 V | 2 V | 0 - 10 V |
| DC bias External | - | 0 to 40 V | 0 to 40 V |
| Contact check | - | - | Yes |
| Basic accuracy | 0.25 % | 0.1 % | 0.1 % |
| Basic accuracy PM 6304C | - | 0.05 % | - |
| Averaging | - | Yes | Yes (3 levels) |
| Deviation mode | - | - | Yes |
| Test signal monitoring | - | Current or voltage | Current or voltage |
| RS232 or IEEE-488 | - | Optional | To choice |
| Normal mode | 2 measurement/s | | |
| Fast Mode | - | 10 measurement/s | |
| Binning | 9 bins | | |
| Bin programming via | - | IEEE-488 RS-232 interface | |
| Remote Bin programming | - | Option PM 9559B | - |
| Front panel settings | - | 9+1 (trim figures included) | |
| Weight | 3.8 kg | 4.7 kg | 5.3 kg |
| Warm-up time | 5 min | 5 min | 30 min |
| Power consumption | 16 VA | 31 VA | 44 VA |
| Power requirements | 100/120/220/240 V ± 10% 50/60 Hz | | |
| Size (H x W x D) | 105 x 315 x 405 mm | | |
| Calibration interval / warranty | 1 year | | |

| Models PM 6304 | IEEE - 488 | RS -232 | DC unit | Handler |
|-------------------|---------------|---------|---------|---------|
| PM 6304/00n | | | | |
| PM 6304/02n | • | | | |
| PM 6304C/02n | • | | | |
| PM 6304/03n | | • | | |
| PM 6304C/03n | | • | | |
| PM 6304/04n | | | • | |
| PM 6304/06n | • | | • | |
| PM 6304/07n | | • | • | |
| PM 6304/50n | | | | • |
| PM 6304/52n | • | | | • |
| PM 6304/53n | | • | | • |
| PM 6304/54n | | | • | • |
| PM 6304/56n | • | | • | • |
| PM 6304/57n | | • | • | • |

| Models PM 6306 | IEEE - 488 | RS -232 | DC unit | Handler |
|-------------------|---------------|---------|---------|---------|
| PM 6306/02n | • | | | |
| PM 6306/03n | | • | | |
| PM 6306/06n | • | | • | |
| PM 6306/07n | | • | • | |
| PM 6306/52n | • | | | • |
| PM 6306/53n | | • | | • |
| PM 6306/56n | • | | • | • |
| PM 6306/57n | | • | • | • |

Example: PM 6306/573 Programmable RCL meter PM 6306 with "handler interface", "DC measurement unit" and "RS-232 interface" installed, Standard North American line cable.

Ordering Information

PM 6303A/00n
Automatic RCL meter 1 kHz

PM 6304/_ _ n
Programmable Automatic RCL Meter DC - 100 kHz

PM 6306/_ _ n
Programmable Automatic RCL Meter DC - 1 MHz

Specify line cord option /--n
/--1 EUR, /--3 USA
/--4 UK, /--5 Swiss
/--8 Australian

Options & Accessories
Options for PM 6306 and PM 6304 (Retrofittable, service centre installable)

PM 9548 IEEE-488 interface kit

PM 9549 RS-232 interface kit

PM 9565 DC measurement option kit

PM 9566 Handler interface

Accessories for PM 6306, PM 6304 AND PM 6303A

PM 9540/BAN 4-wire test cable set with Banana plugs

PM 9540/TWE SMD tweezers

PM 9541B 4-wire test cable set with Heavy Duty Kelvin clips

PM 9542A Universal test adapter

PM 9542/SMD Test fixture for SMD's

PM 9559B Infrared bin programmer (PM 6304 only)

PM 9564 Rack mount kit

WINDOWS® test software for PM 6306 and PM 6304 SW63W/011

ComponentView Software
PM 9536/041
RS-232 cable 3 m,
9 pin female / 9 pin female