

ANALOG MΩ HiTESTER SERIES

Field measuring instruments



Models IR4016-20, IR4017-20, IR4018-20, 3490

Single range: IR4010 SERIES
3-range: 3490



Flip the Cover



Quick and easy storage without disconnecting the leads



ISO 9001
JMI-0216



ISO 14001
JQA-E-90091



www.hioki.com

Hioki company overview, new products, environmental considerations and other information are available on our website.



Guaranteed for 3 years



Built for the Field

LIGHT

See better in the dark

Luminous Scale



Bright LED

- Work safely knowing that when the RED is lit, live wires, high voltage or electrical discharge is present
- The super bright light at the tip of the optional 9788 Test Leads adds to efficiency

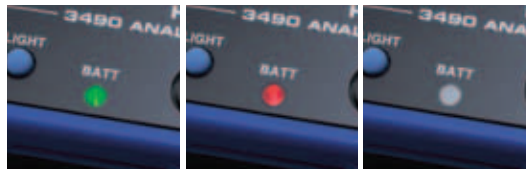


Check the Battery Status

Be well-informed about the condition of your batteries. Green signals that the battery level is sufficiently high, and red warns of low battery power. Replace the batteries before the LED turns completely off.

Check for Live Circuits

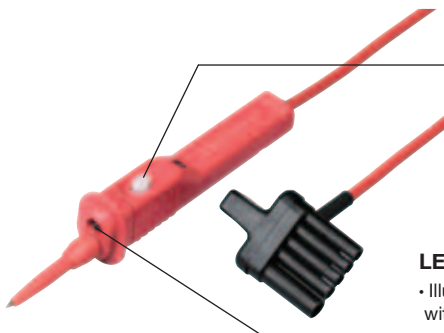
The LIVE CIRCUIT LED will light up in red whenever the voltage exceeds 20V AC between the LINE and EARTH terminals, and when at least 20V DC is still remaining during the auto discharge.



BATT : Hi **BATT : Lo** **BATT : Dead**



TEST LEAD WITH REMOTE CONTROL SWITCH



REMOTE CONTROL SWITCH

- Start and stop the test at the touch of a button
- Test for insulation resistance single-handedly

LED LIGHT

- Illuminate the test location with a bright white LED

MEASURE SWITCH

- Ergonomic design lets you start and stop tests with a single press



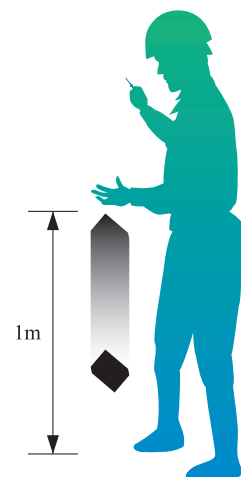
- Simply flip the switch to measure continuously



DROP PROOF



Testers are built tough to withstand a 1-meter drop onto a concrete floor



Model Line-up

At A Glance

| MODEL | Insulation Resistance | | | Resistance Measurement | AC voltage Measurement |
|-----------|-----------------------|--------|--------|------------------------|------------------------|
| | 250V | 500V | 1000V | | |
| IR4016-20 | — | 100MΩ | — | — | 600V AC |
| IR4017-20 | — | 1000MΩ | — | — | 600V AC |
| IR4018-20 | — | — | 2000MΩ | — | 600V AC |
| 3490 | 100MΩ | 100MΩ | 4000MΩ | 3Ω, 30Ω | 600V AC |

Single range

Models IR4016-20, IR4017-20, IR4018-20

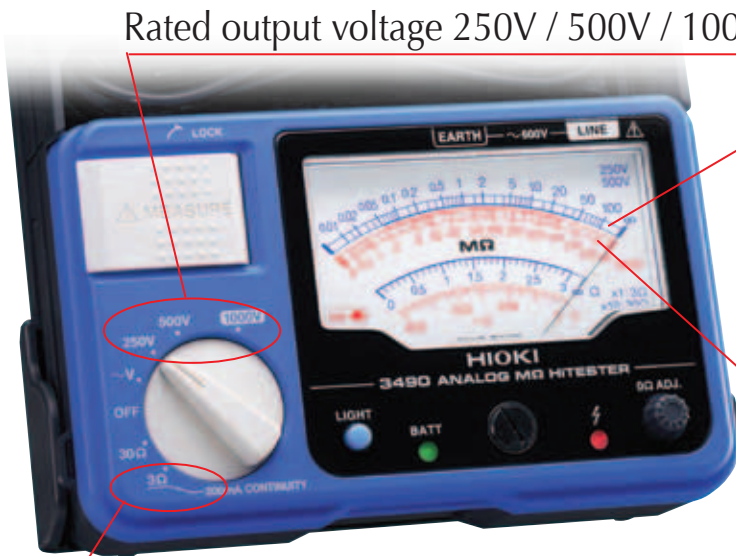


Rated output voltage
Effective maximum indicated value

3-range

Model 3490

INSULATION & CONTINUITY



Rated output voltage 250V / 500V / 1000V

Easy-to-Read Scale

The 250V and 500V ranges share a common 100MΩ, making the display completely clean and uncluttered

SCALE
250V/ 50MΩ
500V/100MΩ ➔ 100MΩ

4000MΩ Scale at the 1000V Range

3Ω range, 200mA EN 61557

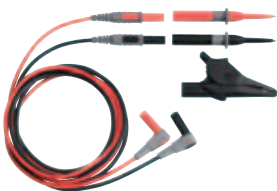
Checks ground wire continuity with current of 200mA

Also capable of testing the continuity of electrical grounds in accordance with EN 61557

Accessories

TEST LEAD L9787 (1.2m)

Conforms to safety standard IEC61010-031 (revised) for hand-held probes



Detachable!

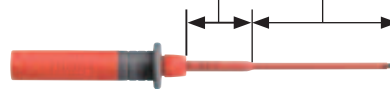
included as a standard accessory
(This sleeve cannot be attached to previous products)

When measuring in a CAT III environment, be sure to attach the sleeve to the test leads.

Options

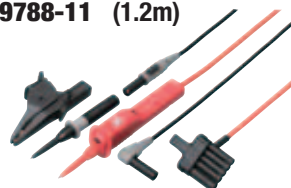
BREAKER PIN L9787-91 (for Model L9787)

22mm/ φ3.7mm 48mm/ φ2.6mm



Extra long tips extend deep into the breaker openings for more reliable testing

COMPLETE TEST LEAD WITH REMOTE CONTROL SWITCH L9788-11 (1.2m)



MAGNETIC ADAPTER 9804-02

Magnetic tip for use with the standard Models L9788-11, L9788-10, L9787 (generally compatible with M6 pan screws)

TIP PIN L9788-90 (for Model L9788-10)

When measuring in a CAT III environment, be sure to attach the sleeve to the test leads.

35mm/ φ3.2mm



Sleeve

TEST LEAD WITH REMOTE CONTROL SWITCH L9788-10 (1.2m)



General Specifications

| | |
|------------------------------------|--|
| Power supply | Rated power voltage: 1.5 VDC × 4, LR6 alkaline battery × 4 |
| Continuous operating time | Approx. 20 hours (at 500V range, no load) *1 |
| Auto Power Save | Approx. 15 minutes |
| Operating Temperature & Humidity | 0 to 40°C (32 to 104°F), 90% rh or lower (non-condensating) 40 to 50°C (104 to 122°F), at 50°C and below relative with linear decrease up to 50% rh |
| Storage Temperature & Humidity | -10 to 50°C (14 to 122°F), 90%RH or lower (non-condensating) |
| Maximum rated voltage to earth | 600 VAC, Measurement Category III, Anticipated Transient Overvoltage: 6000V |
| Dielectric strength | 5312 VAC, 50/60Hz, Measurement terminals - electrical enclosure, current sensitivity 1 mA |
| Standards | Safety EN61010, EMC EN61326 *3490 only: EN61557-1/-2/-4 *IR4016-20, IR4017-20, IR4018-20: EN61557-1/-2 |
| Drop Proof | On concrete: 1m/1 time |
| Dimensions (excluding protrusions) | Approx. 159W × 177H × 53D mm (6.26"W × 6.97"H × 2.09"D) |
| Mass | Approx. 610g (21.5 oz.) (including battery, not including test lead) |
| Accessories | Test lead L9787 × 1, Instruction manual × 1, Shoulder strap × 1, LR6 alkaline battery × 4 |

*1 IR4018-20 :15 hours

□ 3490 specifications

Guaranteed for one year at 23°C±5°C (73°F±9°F) and 90% rh

| Insulation resistance measurement | Rated output voltage | 250 V DC | 500 V DC | 1000 V DC |
|-----------------------------------|--|---|----------|--------------------------------|
| | Effective maximum indicated value | 100 MΩ | | 4000 MΩ |
| | Center scale value | 1 MΩ | | 50 MΩ |
| | 1st effective measuring range | 0.05 to 50 MΩ | | 2 to 1000 MΩ |
| | | ±5% of indicated value | | |
| | 2nd effective measuring range | 0.01 to 0.05 MΩ 50 to 100 MΩ | | 0.5 to 2 MΩ 1000 to 4000 MΩ |
| | | ±10% of indicated value | | |
| | Open circuit voltage | 1 to 1.2 times of rated output voltage | | |
| | Lower limit measurement resistance value to be maintained rated output voltage | 0.25 MΩ | 0.5 MΩ | 1 MΩ |
| Resistance measurement | Rated current | 1mA (Tolerance: 1 to 1.2 times of the rating value) | | |
| | Overload protection | 1200V AC (10 sec.) | | |
| | Ranges | 3Ω | | 30Ω |
| | Center scale value | 1.5Ω | | 15Ω |
| | Accuracy | ±0.09Ω | | ±0.9Ω |
| | Open-circuit voltage | 4.1 to 6.9 V | | |
| AC voltage measurement | Measuring current | 200mA DC or more | | 20mA DC or more |
| | Overload protection | 720V AC (10 sec., by Fuse) | | |
| | Measuring range | 0 to 600 V (50/60 Hz) | | |
| | Accuracy | ±5% of maximum scale value | | |
| | Input resistance | 100 kΩ or more (50/60Hz) | | |
| Overload protection | 1200V AC (10 sec.) | | | |

□ IR4016-20, IR4017-20, IR4018-20 specifications

Guaranteed for one year at 23°C±5°C (73°F±9°F) and 90% rh

| Model | | IR4016-20 | IR4017-20 | IR4018-20 |
|-----------------------------------|--|---|-------------------------------|------------------------------|
| Insulation resistance measurement | Rated output voltage | 500 V DC | 500V | 1000 V DC |
| | Effective maximum indicated value | 100 MΩ | 1000 MΩ | 2000 MΩ |
| | Center scale value | 2 MΩ | 20 MΩ | 50 MΩ |
| | 1st effective measuring range | 0.1 to 50 MΩ | 1 to 500 MΩ | 2 to 1000 MΩ |
| | | ±5% of indicated value | | |
| | 2nd effective measuring range | 0.01 to 0.1 MΩ 50 to 100 MΩ | 0.5 to 1 MΩ 500 to 1000 MΩ | 1 to 2 MΩ 1000 to 2000 MΩ |
| | | ±10% of indicated value | | |
| | Open circuit voltage | 1 to 1.2 times of rated output voltage | | |
| | Lower limit measurement resistance value to be maintained rated output voltage | 0.5 MΩ | 0.5 MΩ | 1 MΩ |
| AC voltage measurement | Rated current | 1mA (Tolerance: 1 to 1.2 times of the rating value) | | |
| | Overload protection | 600V AC (10 sec.) | | 1200V AC (10 sec.) |
| | Measuring range | 0 to 600 V (50/60 Hz) | | |
| | Accuracy | ±5% of maximum scale value | | |
| | Input resistance | 500 kΩ or more (50/60Hz) | | |
| Overload protection | 600V AC (10 sec.) | | 1200V AC (10 sec.) | |

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HIOKI

HIOKI E. E. CORPORATION

HEADQUARTERS:

81 Koizumi, Ueda, Nagano, 386-1192, Japan
TEL +81-268-28-0562 FAX +81-268-28-0568
http://www.hioki.com / E-mail: os-com@hioki.co.jp

HIOKI USA CORPORATION:

TEL +1-609-409-9109 FAX +1-609-409-9108
http://www.hiokiusa.com / E-mail: hioki@hiokiusa.com

HIOKI (Shanghai) SALES & TRADING CO., LTD.:

TEL +86-21-63910090 FAX +86-21-63910360
http://www.hioki.cn / E-mail: info@hioki.com.cn

HIOKI INDIA PRIVATE LIMITED:

TEL +91-124-6590210 FAX +91-124-6460113
E-mail: hioki@hioki.in

HIOKI SINGAPORE PTE. LTD.:

TEL +65-6634-7677 FAX +65-6634-7477
E-mail: info-sg@hioki.com.sg

HIOKI KOREA CO., LTD.:

TEL +82-42-936-1281 FAX +82-42-936-1284
E-mail: info-kr@hioki.co.jp

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