

15kV HIGH VOLTAGE INSULATION TESTER

IP66



- **Protection class: IP66 (Lid closed)**
- Test insulation resistance up to 30TΩ (30000GΩ).
- Short-circuit current up to 5mA
- Microprocessor controlled.
- 30 insulation test voltages :

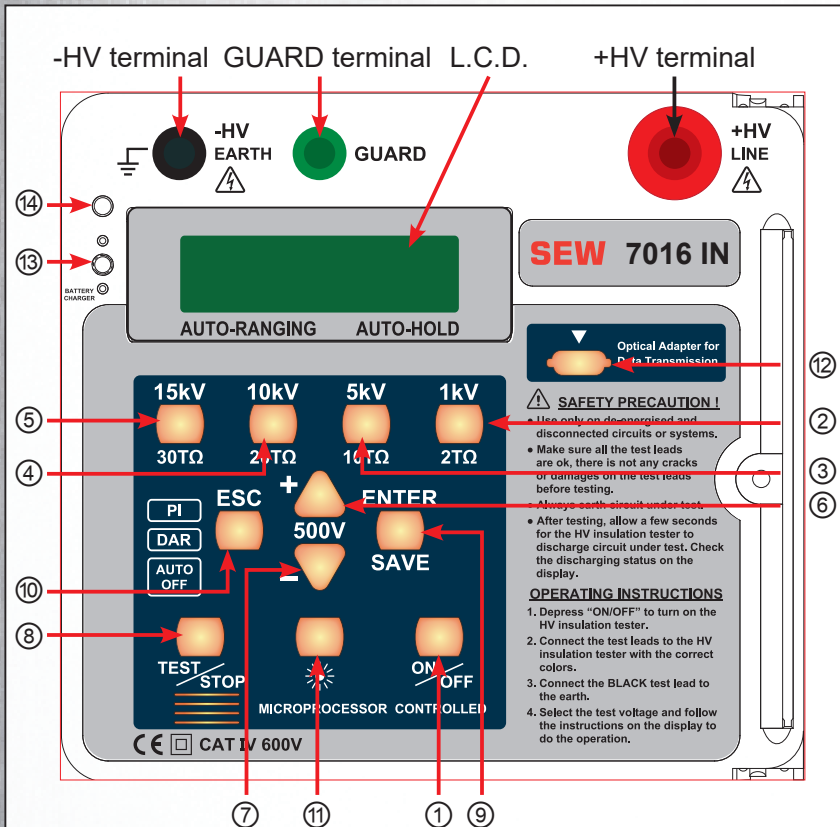
| | | | | | |
|---------|-------|---------|-------|---------|-------|
| 500V, | 1kV, | 1.5kV, | 2kV, | 2.5kV, | 3kV, |
| 3.5kV, | 4kV, | 4.5kV, | 5kV, | 5.5kV, | 6kV, |
| 6.5kV, | 7kV, | 7.5kV, | 8kV, | 8.5kV, | 9kV, |
| 9.5kV, | 10kV, | 10.5kV, | 11kV, | 11.5kV, | 12kV, |
| 12.5kV, | 13kV, | 13.5kV, | 14kV, | 14.5kV, | 15kV |
- AC/DC voltmeter (600V).
- PI (Polarization Index) indication.
- DAR (Dielectric Absorption ratio) indication.
- Auto-ranging on all insulation ranges.
- Backlight function.
- Menu driven.
- Visual and audible warning if external voltage is present. ($\geq 30V_{ac}$ or $\geq 30V_{dc}$)
- Auto-hold function to freeze the reading.
- Overload protection.
- Adjustment for testing time (duration) : 1~30 minutes
- Auto-off.
- Calendar.
- Optical USB to RS-232 data transmission.
- 200 measurement results can be saved in the memory and recalled on the display.
- Safety standard : EN IEN 61010-1 CAT IV 600V
EN 61010-2-030
EN 61326-1

- Insulation test voltage up to 15kV.
- Test Insulation Resistance up to 30 TΩ (30000GΩ).
- Short circuit current up to 5mA.

APPLICATIONS

For testing the insulation resistance of cables, motors, generators, transformers, insulators, high-pressure switches, wiring installations.....etc.

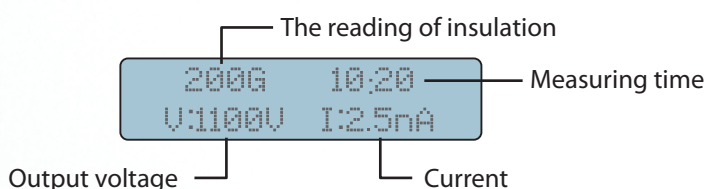
Instrument Layout



- | | |
|--|---|
| ① Power ON/OFF button | ⑦ To subtract (-500V) button to the selected test voltage |
| ② Insulation resistance test at 1kV button | ⑧ TEST/STOP button |
| ③ Insulation resistance test at 5kV button | ⑨ ENTER & SAVE button |
| ④ Insulation resistance test at 10kV button | ⑩ ESC button |
| ⑤ Insulation resistance test at 15kV button | ⑪ BACKLIT button |
| ⑥ To add (+500V) button to the selected test voltage | ⑫ CA-232 connection socket |
| | ⑬ Battery-charge socket |
| | ⑭ Charge indicator |

Display

2 Lines x 16 characters, large intelligent LCD module.



SPECIAL FUNCTIONS

Voltmeter

When testing insulation resistance while there is a presence of voltage (whether ACV or DCV) on the measured object, conventional insulation testers are highly susceptible to damage. With this new line of insulation testers, it has the ability to switch to voltage detection mode without damaging the instrument once it detects the presence of voltage. It will also display the voltage finding on the LCD screen. With this new and unique function, it will allow the user to safely rule out the possibility of any presence of voltage on the measured object prior to measuring its insulation.

DAR = Dielectric Absorption Ratio

The dielectric absorption ratio is the ratio of the insulation resistance measured at 1 min divided per the insulation resistance measured at 30 seconds. 30 seconds after starting a test, the tester will beep, indicating the operator that the resistance value measured at 30 seconds now has been saved internally. 1 minute after starting a test, the tester will beep again, indicating the user that the DAR result is now computed, and change the display format to now display the DAR result.

$$\text{DAR} : \frac{1\text{-min insulation resistance}}{30\text{-sec insulation resistance}}$$

PI = Polarization Index

The polarization index or PI is the ratio of the insulation resistance measured at 10 minutes divided per the insulation resistance measured at 1 minute. 10 minutes after starting a test, the tester will beep again, indicating the user that the PI result is now computed, and change the display format to now display the PI result.

$$\text{PI} : \frac{10\text{-min insulation resistance}}{1\text{-min insulation resistance}}$$

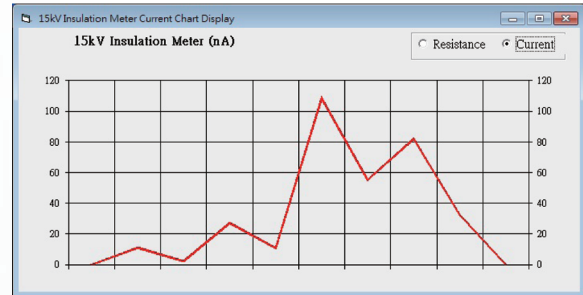
Lower insulation resistance tested takes longer test time, which would deteriorate the specimen. Thus, higher DAR or PI (as close to 1) would create better insulation grade of specimen.

SPECIFICATIONS

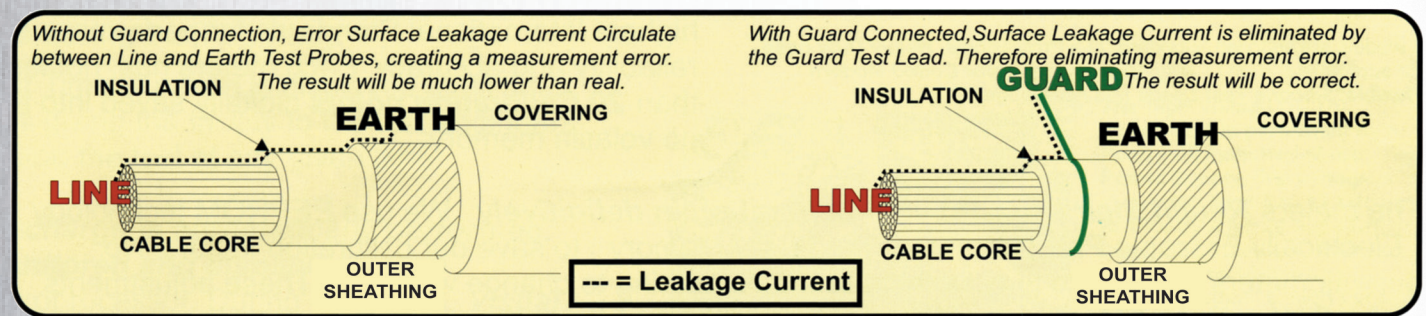
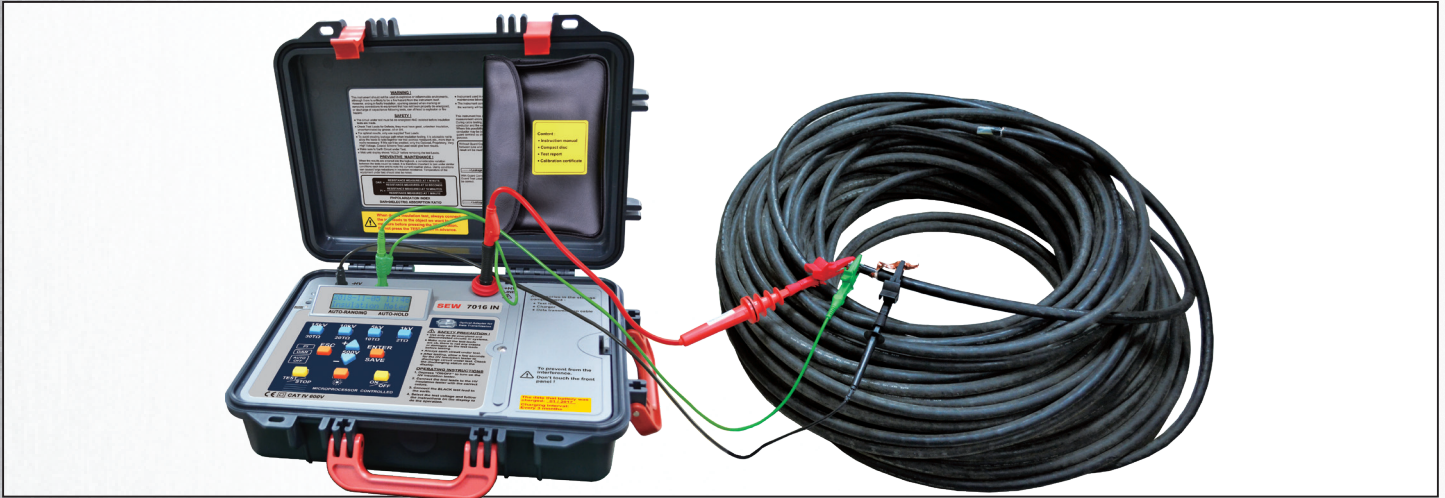
| | | |
|-----------------------------------|--|--------------------|
| Test voltage | From 500Vdc to 15kVdc Adjustable in 500V steps | |
| Preset buttons | 1kV, 5kV, 10kV, 15kV | |
| Insulation resistance | 1T Ω /0.5kV 1T Ω at 0.5kV ~ 30T Ω at 15kV | |
| Accuracy | 1kV: 0~200G Ω 5kV: 0~1T Ω 10kV: 0~2T Ω 15kV: 0~3T Ω | $\pm(5\%rdg+5dgt)$ |
| | 1kV: 200G Ω ~2T Ω 5kV: 1T Ω ~10T Ω 10kV: 2T Ω ~20T Ω 15kV: 3T Ω ~30T Ω | $\pm 20\%$ |
| Resolution | 1G Ω : 0.001G Ω 10G Ω : 0.01G Ω 100G Ω : 0.1G Ω 1T Ω : 1G Ω 10T Ω : 10G Ω 30T Ω : 100G Ω | |
| Short circuit current | up to 5mA | |
| PI (Polarization Index) | √ | |
| DAR (Dielectric Absorption Ratio) | √ | |
| Voltmeter | ACV : 30~600V (50/60Hz) DCV : 30~600V Accuracy : $\pm(2.0\%rdg+3dgt)$ Resolution : 1V | |
| Current measurement | 0.5nA ~ 0.55mA (Depending on the insulation resistance) | |
| Power source | Rechargeable battery | |
| Adapter | Input : 100-240Vac, 0.4A, 50-60Hz Output : 24Vdc, 0.62A | |
| Dimensions | 430(L) x 324(W) x 127(D)mm | |
| Weight | Approx : 6.56kg | |
| Accessories | Instruction manual Test leads (AL-58HV, AL-30AG, AL-30H B HV) Data transmission cable CA-232 CD or USB(optional) for PC interface Alligator clip (AL-23CA) Charger (CHA-7015) Test report | |

Data Communication Function

- Downloading saved data to a PC.
- Transferring and showing real-time data to a PC.
- 200 measurement results can be saved in the memory and recalled on the display.



Measure the insulation of cable



Accessories



A complete set of accessories : H.V test leads (AL-30AG AL-30H B HV), Alligator clip (AL-23CA).H.V Line probe with (AL-58HV), Data transmission cable (CA-232), Charger (CHA-7015), Software for PC interface, Instruction manual, Test report.