

# Insulation Testers (Megohmmeters)

These insulation testers are intended primarily for periodic testing of industrial motors, transformers, electrical wiring, and cable insulation for signs of deterioration. Low readings may indicate impending failure and permit replacement during routine maintenance rather than risking production downtime. Also useful for safety testing of TV sets and appliances to assure no hazardous leakage current. The voltage and resistance ratings for insulation testing are often specified for the product to be tested.



300



305

## Models 300, 305

- Test insulation resistance
- Measure AC voltage to 600V
- Battery powered
- 1000V, 2000M $\Omega$  (Model 300)
- 500V, 1000M $\Omega$  (Model 305)

## Models 307, 308

- Selectable 250V, 500V, or 1000V insulation test
- Low resistance test
- Extra rugged integral carrying case
- Live circuit indicator warns of safety hazard
- Push to test

## Specifications

|                        | 300                                                            | 305                                                                                                      | 307                                                                  | 308                                                      | models                                                                                                                                                                                                                                                             |
|------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                   | Analog                                                         | Analog                                                                                                   | Analog                                                               | Digital                                                  |                                                                                                                                                                                                                                                                    |
| Output Voltage         | 1000VDC                                                        | 500VDC                                                                                                   | 1000VDC                                                              | 1000VDC                                                  |                                                                                                                                                                                                                                                                    |
| Maximum current        | 250 $\mu$ A                                                    | 500 $\mu$ A                                                                                              | 2mA                                                                  | 1.2mA                                                    |                                                                                                                                                                                                                                                                    |
| Resistance Range       | 1M $\Omega$ - 2000M $\Omega$                                   | 0.2M $\Omega$ - 1000 M $\Omega$                                                                          | 1000V 0-200M $\Omega$<br>500V 0-100M $\Omega$<br>250V 0-50M $\Omega$ | 0-2000M $\Omega$<br>0-2000M $\Omega$<br>0-2000M $\Omega$ |                                                                                                                                                                                                                                                                    |
| Center Scale           | 50M $\Omega$                                                   | 20M $\Omega$                                                                                             | 1M $\Omega$ , 2M $\Omega$ , 4M $\Omega$                              | Does not apply                                           |                                                                                                                                                                                                                                                                    |
| Accuracy               |                                                                | Infinity: within 1% of scale length<br>Zero: within 1% of scale length<br>All points $\pm$ 5% of reading |                                                                      | 250V 500V 1000V                                          | 0-100 $\Omega$ $\pm$ (1.5%+3D) $\pm$ (1.5%+2D) $\pm$ (1.5%+2D)<br>100-200M $\Omega$ $\pm$ (2%+5D) $\pm$ (1.5%+2D) $\pm$ (1.5%+2D)<br>200-1700M $\Omega$ $\pm$ (3%+7D) $\pm$ (3%+4D) $\pm$ (3%+3D)<br>1700-2000M $\Omega$ $\pm$ (4%+8D) $\pm$ (4%+6D) $\pm$ (4%+5D) |
| AC Voltage Test        |                                                                |                                                                                                          |                                                                      |                                                          |                                                                                                                                                                                                                                                                    |
| Range                  | 0 to 600 VDC                                                   |                                                                                                          |                                                                      |                                                          | Live Circuit Indicator                                                                                                                                                                                                                                             |
| Frequency Response     | 10Hz to 100kHz                                                 |                                                                                                          |                                                                      |                                                          |                                                                                                                                                                                                                                                                    |
| Accuracy               | $\pm$ 4% of full scale                                         |                                                                                                          |                                                                      |                                                          |                                                                                                                                                                                                                                                                    |
| Low resistance Test    | Does not apply                                                 |                                                                                                          | 0-50 $\Omega$                                                        | 0-200 $\Omega$                                           |                                                                                                                                                                                                                                                                    |
| Accuracy               | Does not apply                                                 |                                                                                                          | $\pm$ 5% of reading                                                  | $\pm$ (1.5% + 2 digits)                                  |                                                                                                                                                                                                                                                                    |
| General Specifications |                                                                |                                                                                                          |                                                                      |                                                          |                                                                                                                                                                                                                                                                    |
| Power Requirements     | Six "AA" cells (supplied)                                      |                                                                                                          |                                                                      |                                                          | Eight "AA" cells (supplied)                                                                                                                                                                                                                                        |
| Battery Life           | 4 hours typical alkaline                                       |                                                                                                          | 12 hours continuous                                                  |                                                          | 10 hours continuous w/alkaline                                                                                                                                                                                                                                     |
| Operating Temperature  | 32° to 122°F (0° to 50°C), $\leq$ 70% RH                       |                                                                                                          |                                                                      |                                                          |                                                                                                                                                                                                                                                                    |
| Storage Temperature    | -4° to 140°F (-20° to 60°C), < 80% RH (with batteries removed) |                                                                                                          |                                                                      |                                                          |                                                                                                                                                                                                                                                                    |
| Dimensions             | 6.66 x 4.18 x 1.42" (169 x 106 x 36mm)                         |                                                                                                          |                                                                      |                                                          | 7 x 8.5 x 3.5" (180 x 220 x 90mm)                                                                                                                                                                                                                                  |
| Weight                 | 15oz. (430g) w/batteries                                       |                                                                                                          |                                                                      |                                                          | 2.6 lb (925g) with batteries                                                                                                                                                                                                                                       |

## Accessories

**One Year Warranty**

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|--------------------------------------------------------------------|--------------------------------------------------------------------------|
| Supplied: Batteries, Carrying Case, Test Leads, Instruction Manual | Batteries, Integral Carrying Case w/strap, Test Lead, Instruction Manual |
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