

# Fluke 1662 Multifunction Testers



## Key features

A solid, reliable, basic installation tester

- Tests voltage and frequency
- Checks wiring polarity to detect broken N wires
- Measures insulation resistance and loop and line resistance
- Measures motor windings with continuity test
- Calculates prospective earth fault current (PEFC/IK) and prospective short-circuit current (PSC/IK)

## Product overview: Fluke 1662 Multifunction Testers

### Fluke 1662 Multifunction Installation Tester delivers solid, basic installation testing features


The Fluke 1662 installation tester gives you Fluke reliability and all the basic testing power you need for day-in, day-out installation testing. It tests to all local regulations and is easy and intuitive to use. Additional helpful features like the On/Off switchable auto-start for RCD and loop test, and self-test save time and give you more confidence in your results.

- Measures RCD switching time and tripping level (ramp test)
- Measures trip time and current for RCD type A & AC in one test
- Measures RCD variable current

- Provides automatic RCD test sequence
- Includes Z-max memory for loop tests to support easy evaluation of the highest loop test value
- Provides unique zero adapter for fast, reliable and accurate test lead and mains cord compensation
- Includes a phase sequence indicator
- Comes with hard carrying case, padded carrying and waist strap, and remote control probe and lead

## Specifications: Fluke 1662 Multifunction Testers

| AC voltage measurement                           |  |
|--|--|
| Range  | 500 V  |
| Resolution                                       | 0.1 V  |
| Accuracy 45 Hz – 66 Hz                           | 0.8% + 3   |
| Input impedance                                  | 360 k $\Omega$   |
| Overload protection                              | 660 V rms  |
| Continuity testing (RLO)                         |  |
| Range (autoranging)                              | 20 $\Omega$ / 200 $\Omega$ / 2000 $\Omega$   |
| Resolution                                       | 0.01 $\Omega$ / 0.1 $\Omega$ / 1 $\Omega$  |
| Open Circuit Voltage                             | >4 V   |
| Insulation resistance measurement (RISO)         |  |
| Accuracy of test voltage (at rated test current) | +10%, -0%  |
| Test voltage                                     | 100 V<br>250 V<br>500 V<br>1000 V  |
| Insulation resistance range                      | 20 M $\Omega$ / 50 M $\Omega$<br>20 M $\Omega$ / 100 M $\Omega$<br>20 M $\Omega$ / 200 M $\Omega$<br>20 M $\Omega$ / 200 M $\Omega$ / 500 M $\Omega$<br>20 M $\Omega$ / 200 M $\Omega$ / 1000 M $\Omega$       |
| Resolution                                       | 0.01 M $\Omega$ / 0.1 M $\Omega$<br>0.01 M $\Omega$ / 0.1 M $\Omega$<br>0.01 M $\Omega$ / 0.1 M $\Omega$<br>0.01 M $\Omega$ / 0.1 M $\Omega$ / 1 M $\Omega$<br>0.01 M $\Omega$ / 0.1 M $\Omega$ / 1 M $\Omega$ |
| Test current                                     | 1 mA @ 50 k $\Omega$<br>1 mA @ 100 k $\Omega$<br>1 mA @ 250 k $\Omega$<br>1 mA @ 500 k $\Omega$<br>1 mA @ 1 M $\Omega$   |
| Loop and line impedance (ZI)                     |  |
| Range  | 10 $\Omega$ / 0.001 $\Omega$ / High current m $\Omega$ mode  |
| Resolution                                       | 0.01 $\Omega$ / 0.1 $\Omega$ / 1 $\Omega$  |
| Prospective earth fault current, PSC test        |  |
| Range  | 1000 A / 10 kA (50 kA)   |

|   |  |                  |
|---|--|------------------|
| Resolution  | 1 A / 0.1 kA   |                  |
| Computation   | Prospective earth fault current (PEFC) or Prospective short circuit current (PSC) determined by dividing measured mains voltage by measured loop (L-PE) resistance or line (L-N) resistance, respectively. |                  |
| RCD testing, RCD types tested                                 |  |                  |
| RCD Type  | A <sup>4</sup> , AC <sup>1</sup> , G <sup>2</sup> , S <sup>3</sup>   |                  |
| Notes   | <sup>1</sup> Responds to AC<br><sup>2</sup> General, no delay<br><sup>3</sup> Time delay<br><sup>4</sup> Responds to pulsed signal<br><sup>5</sup> Responds to smooth DC signal                            |                  |
| Tripping speed test ( $\Delta T$ )                            |  |                  |
| Current settings <sup>1</sup>                                 | 10-30-100-300-500-1000 mA – VAR<br>10-30-100 mA  |                  |
| Multiplier  | x ½, x 1<br>x 5  |                  |
| Measurement range   | RCD Type G   | 310 ms<br>50 ms  |
|   | RCD Type S   | 510 ms<br>160 ms |
| Notes   | <sup>1</sup> 1000 mA type AC only<br>700 mA maximum type A in VAR mode<br>VAR mode not available for type B.   |                  |
| RCD/FI-Tripping Current Measurement/Ramp Test ( $I\Delta N$ ) |  |                  |
| Current range   | 30% to 110% of RCD rated current <sup>1</sup>  |                  |
| Step size   | 10% of $I\Delta N$ <sup>2</sup>  |                  |
| Dwell time  | Type G   | 300 ms/step      |
|   | Type S   | 500 ms/step      |
| Measurement accuracy  | ±5%  |                  |
| Specified trip current ranges (EN 61008-1)                    | 50% to 100% for Type AC<br>35% to 140% for Type A (>10 mA)<br>35% to 200% for Type A (≤10 mA)<br>50% to 200% for Type B<br><sup>2</sup> 5% for Type B  |                  |
| Notes   | <sup>1</sup> 30% to 150% for Type A $I\Delta N > 10$ mA<br>30% to 210% for Type A $I\Delta N = 10$ mA<br>20% to 210% for Type B  |                  |
| Phase Sequence Indication                                     |  |                  |
| Icon  | <br>Phase Sequence indicator is active.   |                  |
| General Specifications  |  |                  |
| Size (L x W x H)  | 10 x 25 x 12.5 cm  |                  |
| Weight (incl. batteries)                                      | 1.3 (kg)   |                  |



|                      |   |
|----------------------|---|
| Baery size, quantity | Type AA, 6 ea.                                      |
| Sealing              | IP-40   |
| Safety               | Complies with EN/IEC 61010-1 and EN/IEC 61010-2-034 |
| Overvoltage          | CAT III / 500V; CAT IV 300V                         |
| Performance          | EN61557-1 to EN61557-7 and EN61557-10               |

## Ordering information

### **FLK-1662**

Fluke 1662 Multifunction Installation Tester

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Includes:

- 6x AA (IEC LR6) cell batteries
  - C1600 hard carrying case
  - Zero adapter
  - Heavy duty mains cord
  - STD standard test lead set
  - Padded carrying and waist strap
  - Quick reference guide
  - TP165X remote control probe and lead
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