

0800 583 44 55 Tel: +44 1536 416 200 Fax: 0800 583 55 66 sales@sjelectronics.co.uk www.sjelectronics.co.uk



# Fluke 27 II and 28 II: Rugged IP 67 Industrial Multimeters

# **Technical Data**

The **NEW** Fluke 27 II and 28 II digital multimeters define a new standard for operating in harsh conditions with the features and accuracy to troubleshoot most electrical problems. Both meters have IP 67 (waterproof and dustproof) rating, MSHA approvals (pending), extended operating temperature range of -15 °C to +55 °C (5 °F to 131 °F, -40 °C for up to 20 minutes) and 95 % humidity, and have been designed and tested to withstand a 3 m (10 ft) drop. The new Fluke 20 Series Multimeters are built to work in the toughest environments.

- Measure up to 1000 V ac and dc
- Measure up to 10 A (20 A for 30 seconds)
- 10,000  $\mu$ F capacitance range
- Frequency to 200 kHz
- Extended ac voltage bandwidth-15 Hz to 20 kHz (28 II), 40 Hz to 30 kHz (27 II)
- Built in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument (28 II)
- Resistance, continuity and diode test
- Min/Max and average recording to capture variations automatically
- Peak min-max (28 II)
- Unique function for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment (28 II)

## Features

- New IP 67 waterproof & dustproof protection, completely sealed for use in harsh environments
- Designed to withstand 3 meter drop (with holster)

- Hi resolution 20,000 count display mode (28 II)
- True-rms ac voltage and current for accurate measurements on non linear signals (28 II)
- Average responding voltage and current for measurements (27 II)
- **New** Backlit keypad buttons allow for easy visibility in low-lit areas
- Large display digits and 2 level bright white backlight for increased visibility
- Reversible holster for added protection when not in use
- Withstands hazardous 8,000 volt spikes caused by load switching and faults on industrial circuits and complies with second edition IEC and ANSI electrical safety standards
- Long battery life (800 hours)
- Relative mode to remove test lead resistance from low ohms measurements
- Auto and manual ranging for maximum flexibility
- Optional magnetic hanger for easy setup and viewing while freeing your hands for other tasks
- MSHA approval (pending)





### **Accuracy specifications**

| Specification                             |                 | 27 II                        | 28 II               |
|-------------------------------------------|-----------------|------------------------------|---------------------|
| DC weltere                                | Max. resolution | 0.1 mV to 1000 V             |                     |
| DC voltage                                | Accuracy        | 0.1 % +1                     | 0.05 % + 1          |
| AC voltage                                | Max. resolution | 0.1 mV to 1000 V             |                     |
|                                           | Accuracy        | 0.5 % +3                     | 0.7 % +4            |
| DC current                                | Max. resolution | 0.1 µA to 10 A               |                     |
|                                           | Accuracy        | 0.2 % + 4                    | 0.2 % + 4           |
|                                           | Max. resolution | 0.1 µA to 10 A               |                     |
| AC current                                | Accuracy        | 1.5 % + 2                    | 1.0 % + 2           |
| Resistance                                | Max. resolution | 0.1 Ω to 50 MΩ               |                     |
| Display counts                            |                 | 6000                         | 6000/19,999         |
| Capacitance                               |                 | 1 nF to 9999 μF              |                     |
| Frequency                                 |                 | 0.5Hz Hz to 199.99 kHz       |                     |
| Temperature                               |                 | -                            | -200 °C to +1090 °C |
| Low pass filter<br>(Measurement on VSD's) |                 | -                            | Yes                 |
| Compliance                                |                 | CAT IV 600 V , CAT III 1000V |                     |
| IP rating                                 |                 | IP 67                        | IP 67               |
| Power                                     |                 | Three AA batteries           |                     |
| Battery life                              |                 | 800 hours                    |                     |

## **General specifications**

| Display                   |                                                             |  |  |  |
|---------------------------|-------------------------------------------------------------|--|--|--|
| Bar graph/backlight       | Yes/Yes                                                     |  |  |  |
| Data storage              |                                                             |  |  |  |
| Peak transient capture    | 250 μS (28 II)                                              |  |  |  |
| Min/Max/Avg               | Yes                                                         |  |  |  |
| Reading hold              | Yes                                                         |  |  |  |
| Other features            |                                                             |  |  |  |
| Relative readings (zero)  | Yes                                                         |  |  |  |
| Battery type              | Three AA batteries                                          |  |  |  |
| Warranty and protection   |                                                             |  |  |  |
| Safety rating             | CAT IV 600 V/CAT III 1000 V                                 |  |  |  |
| External protection       | Rubber holster                                              |  |  |  |
| Drop test                 | 10 feet drop test                                           |  |  |  |
| Dustproof/waterproof      | Yes, IP 67 rated                                            |  |  |  |
| Warranty                  | Limited lifetime                                            |  |  |  |
| Size (HxWxL) with holster | 6.35 cm x 10.0 cm x 19.81 cm<br>(2.5 in x 3.93 in x 7.8 in) |  |  |  |
| Weight with holster       | 698.5 g (1.54 lb)                                           |  |  |  |

# **Ordering information**

| 27 II | Fluke 27 II Rugged IP 67   |
|-------|----------------------------|
|       | Avg. Responding Multimeter |
| 28 II | Fluke 28 II Rugged IP 67   |
|       | True-rms Multimeter        |

**Includes:** Holster, test leads, alligator clips, 80BK-A temperature probe (28 II), manual, CD-ROM, and three AA batteries (installed)

#### **Optional accessories**

| PV 350 | Pressure Vacuum Module |  |
|--------|------------------------|--|
| i200   | AC Current Clamp       |  |
| i410   | AC/DC Current Clamp    |  |
| 80K-6  | High Voltage Probe     |  |



#### Fluke. Keeping your world up and running.®

#### Fluke Corporation

PO Box 9090, Everett, WA 98206 U.S.A.

Fluke Europe B.V. PO Box 1186, 5602 BD Eindhoven, The Netherlands

For more information call: In the U.S.A. (800) 443-5853 or Fax (425) 446-5116 Fax (425) 440-5110 In Europe/M-East/Africa +31 (0) 40 2675 200 or Fax +31 (0) 40 2675 222 In Canada (800)-36-FLUKE or Fax (905) 890-6866 Fram of the countries +1 (425) 446, 5500 or From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116 Web access: http://www.fluke.com

©2009 Fluke Corporation. Specifications subject to change without notice. Printed in U.S.A. 8/2009 3476770A D-EN-N

Modification of this document is not permitted without written permission from Fluke Corporation.