

TECHNICAL DATA

Fluke 28 II Ex Intrinsicly Safe True RMS Digital Multimeter



Key features

- A completely sealed, IP67 rated case
- Withstands drops up to 10 ft or 3 m (with holster)
- Dustproof per IEC 60529 IP6x
- Waterproof per IEC 60529 IPx7
- CAT III 1000 V, CAT IV 600 V
- Reversible holster for added protection of the display when not in use

Product overview: Fluke 28 II Ex Intrinsicly Safe True RMS Digital Multimeter

Now there's an intrinsically safe digital multimeter (DMM) you can use in a wide range of hazardous settings. Whether you work in petroleum, chemical, or pharmaceutical environments, the 28 II Ex gives high-end test and troubleshooting power you need is packed into the most rugged intrinsically safe (IS) DMM Fluke has ever built: drop-proof, waterproof, dust-proof (IP67). The 28 II Ex meets the following certifications:

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IECEEx (International)

- Ex ia IIC T4 Gb
- Ex ia I Ma



ATEX (Europe)

- II 2G Ex ia IIC T4 Gb
- I M1 Ex ia I Ma



NEC / CEC (North America)

- Class I, Division 1, Groups A,B,C,D T4
- Class I, Zone 1, AEx ia IIC T4
- Ex ia IIC T4



PCEC (China)

- Ex ia IIC T4 Gb



Simtars (Australia)

- Ex ia I Ma



IEx (Brazil)

- Ex ia IIC T4 Gb



EAC (Russia)

- 1Ex ia IIC T4 Gb X
- PO Ex ia I Ma X
- IP6X



All the measurement functions of our most popular industrial DMMs

One tool equips you with all the testing and troubleshooting power you need wherever you go—inside or outside ATEX zones 1 or 2. No need to carry different meters for different areas, or worry about crossing through an Ex-required zone with a non-Ex rated instrument.

- 4-1/2 digit mode for precise measurements (20 000 counts)
- True-rms ac voltage and current for accurate measurement on nonlinear signals
- Measures up to 1000 V and 10A AC and DC (note that Ex zones require reduced measurements)
- Low pass filter ensures accurate voltage and frequency measurements on variable speed motor drives (VSDs)
- Frequency to 200 kHz and % duty cycle to help you diagnose VSDs and switching power supplies
- Resistance, continuity and diode test
- 10 000 µF capacitance range for components and motor caps
- Conductance measurements for high resistance or leakage tests
- Min/Max-Average and Peak capture to record transients and variations automatically
- Relative mode to remove test lead interference on resistance measurements
- Auto and manual ranging for maximum flexibility
- Input Alert protects you by chirping and flashing “Lead when leads are plugged into the wrong inputs

Easy to use

Important extras keep you productive all day long in less than optimal conditions.

- Backlit keypad buttons provide extra visibility in poorly lit areas, even when you're wearing full PPE
- Large display digits and 2-level bright white backlight also increases visibility
- Long battery life – 400 hours typical without backlight (Alkaline)
- Optional magnetic hanger for easy setup and viewing while freeing your hands for other tasks

Easy to service in the field

Access to the separate battery compartment makes it easy to change batteries or fuses without jeopardizing instrument calibration.

Specifications: Fluke 28 II Ex Intrinsically Safe True RMS Digital Multimeter

| Accuracy Specifications | | |
|--|--------------|--|
| Accuracy specifications are shown as \pm (% of reading + number of digits) | | |
| DC voltage | Range | 0.1 mV to 1000 V |
| | Accuracy | $\pm(0.05\% + 1)$ |
| AC voltage | Range | 0.1 mV to 1000 V |
| | Accuracy | $\pm(0.7\% + 4)$ |
| DC current | Range | 0.1 μ A to 10 A |
| | Accuracy | $\pm(0.2\% + 4)$ |
| AC current | Range | 0.1 μ A to 10 A |
| | Accuracy | $\pm(1\% + 2)$ |
| Resistance | Range | 0.1 Ω to 50 M Ω |
| | Accuracy | $\pm(0.2\% + 1)$ |
| Conductance | Range | 60.00 nS |
| | Accuracy | $\pm(1.0\% + 10)$ |
| Diode test | Range | 2.0 V |
| | Accuracy | $\pm(2.0\% + 1)$ |
| Duty cycle | Range | 0.0% to 99.9% |
| | Accuracy | Within $\pm(0.2\%$ per kHz + 0.1%) for rise times <1 μ s |
| Capacitance | Range | 10 nF to 9999 μ F |
| | Accuracy | $\pm(1\% + 2)$ |
| Frequency | Range | 0.5 Hz to 199.99 kHz |
| | Accuracy | $\pm(0.005\% + 1)$ |

| | | |
|---|---|---------------------------------------|
| Temperature | Range | -200°C to +1090°C (-328°F to +1994°F) |
| | Accuracy | ±(1% + 10)°C [±(1% + 10)°F] |
| Display counts | 6000 counts/19,999 counts in high-resolution mode | |
| Peak capture | Record transients up to 250 us | |
| Min/Max/Avg recording | Display signals up to approximately 100 ms | |
| Accuracy specifications are shown as ±(% of reading + number of digits) | | |
| Safety Certifications | | |
| ATEX | {Ex} II 2G Ex ia IIC T4 Gb | |
| | {Ex} I M1 Ex ia I Ma | |
| NEC-500 | Class I, Div 1, Groups A-D, 130°C | |
| IECEX | Ex ia IIC T4 Gb | |
| | Ex ia I Ma | |
| GOST R Ex | 1Ex ia IIC T4 Gb X | |
| | PO Ex ia I Ma X | |
| | IP6X | |
| General Specifications | | |
| Power | Three AAA batteries | |
| | Battery life: 400 hours | |
| Display | LCD, with backlight | |
| External protection | Rubber holster | |
| Warranty | Three years | |
| Size with holster (H x W x L) | 6.4 x 10.0 x 19.8 cm (2.5 x 3.9 x 7.8 in) | |
| Weight with holster | 700 g (1.54 lb) | |

Ordering information



Fluke 28 II Ex

Fluke 28 II Ex Intrinsically Safe True RMS Digital Multimeter

Includes:

- Ex-holster
- Alligator clips
- Test leads
- Batteries
- Quick reference guide

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

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