TECHNICAL DATA

Fluke 28II Ex Intrinsically Safe True-rms Digital Multimeter



INTRINSICALLY SAFE
The 28II Ex multimeter's certification allows you to carry the most trusted name in DMM's into many Ex rated areas.

INTRINSICALLY RUGGED
Tested for drops of up to 3 meters (10 feet), waterproof and dustproof, this completely sealed and extremely rugged DMM survives the roughest treatment in the harshest environments.

INTRINSICALLY RELIABLE
Like all Fluke DMMs, the 28II Ex delivers the accuracy and measurement performance you depend upon to succeed in your work, day after day.

A rugged intrinsically safe digital multimeter engineered to stand up to harsh conditions

Whether you work in petroleum, chemical, or pharmaceutical environments, all the test and troubleshooting power you need is packed into the most rugged intrinsically safe (IS) DMM Fluke has ever built. The 28II Ex intrinsically safe digital multimeter is ideal for use in Class 1, Div. 1 - Zone 1 and 2 (gas) areas and is also waterproof, dust-proof (IP67) and drop-proof. You'll be equipped to handle any situation, inside and outside of hazardous zones, without compromising compliance or measurement performance.

Intrinsic safety and regulatory approvals

The 28II Ex carries Ex certifications from the world's leading certification bodies.

USA

Class I Zone 1 AEx ia IIC T4

USA and Canada

Class I, Division 1, Groups ABCD T4

Europe, China, Australia, Brazil

See "Safety Certifications" on back page

28II safety compliance

IEC 61010-1: Pollution Degree 2

IEC 61010-2-033: Measurement CAT III 1000 V / CAT IV 600V

Extreme ruggedness

The Fluke 28II Ex is one of the most rugged intrinsically safe digital multimeters available.

- A completely sealed, IP67 rated case
- Withstands drops up to 3 meters or 10 feet (with holster)
- Waterproof
- Dustproof
- Reversible holster for added protection of the display when not in use

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All the measurement functions of Fluke's most popular industrial DMMs.

One tool equips you with all the testing and troubleshooting power you need wherever you go—inside or outside the Ex hazardous zones listed above. 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 high-resolution 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 10 A 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/Avg 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 in suboptimal 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 can be used outside of Ex hazardous zones 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.

**Note: Batteries cannot be changed inside Ex hazardous zones.*

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Basic Accuracy Specifications

Function	Range/Accuracy
DC voltage	Range: 0.1 mV to 1000 V Accuracy: ± (0.05 % + 1)
AC voltage	Range: 0.1 mV to 1000 V Accuracy: ± (0.7 % +4)
DC current	Range: 0.1 µA to 10 A Accuracy: ± (0.2 % + 4)
AC current	Range: 0.1 µA to 10 A Accuracy: ± (1.0 % + 2)
Resistance	Range: 0.1 Ω to 50 MΩ Accuracy: ± (0.2 % + 1)
Conductance	Range: 60.00 nS Accuracy: ± (1.0 % + 10)
Diode Test	Range: 2.0 V Accuracy: ± (2.0 % + 1)
Duty Cycle	Range: 0.0 % to 99.9 % Accuracy: Within ± (0.2 % per kHz + 0.1 %) for rise times <1 µs
Display counts	6000 counts/19,999 counts in high-resolution mode
Capacitance	Range: 10 nF to 9999 µF Accuracy: ± (1.0 % + 2)
Frequency	Range: 0.5 Hz to 199.99 kHz Accuracy: ± (0.005 % + 1)
Temperature	Range: -200 °C to +1090 °C (-328 °F to +1994 °F) Accuracy: ± (1.0 % + 10) °C [± (1.0 % + 18) °F]

General Specifications

Specification	
Power	Three AAA batteries – type approved* Battery life: 400 hours
Display	LCD, with backlight
Data storage	Peak transient capture 250 µS
External protection	Rubber holster
Warranty	Three years
Size (HxWxL) with holster	6.4 cm x 10.0 cm x 19.8 cm (2.5 in x 3.9 in x 7.8 in)
Weight with holster	698 g (1.54 lb)

** Batteries must be Ex-approved*

Safety Certifications**

Certifications	
ATEX	II 2G Ex ia IIC T4 Gb I M1 Ex ia I Ma
ETL (NEC/CEC)	Class I Zone 1 AEx ia IIC T4 Class I, Division 1, Groups ABCD T4 Ex ia IIC T4
IEC Ex	Ex ia IIC T4 Gb Ex ia I Ma
ANZEx (Australia) **ANZEx**	Ex ia IIC T4 Gb Ex ia I Ma
PCEC	Ex ia IIC T4 Gb
IEx Brazil	Ex ia IIC T4 Gb

Safety
IEC 61010-1: Pollution Degree 2 IEC 61010-2-033: Measurement CAT III 1000 V / CAT IV 600V

Ingress Protection rating
IEC 60529: IP67

***Detailed certification information can be found at*

Ordering information

Fluke 28II Ex Intrinsically Safe True-rms Multimeter

Optional Accessories

TL175 - Silicone test lead set with probes

80BK-A - Bead temperature probe

AC172 / AC175 - Alligator clips

i400 - AC current clamp

90PK-27 - Temperature probe



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