

TECHNICAL DATA

Fluke 28 II Ex Intrinsically 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 Intrinsically 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:

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 $\pm(\% \text{ of reading} + \text{number of digits})$

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 $\pm(0.2\% \text{ per kHz} + 0.1\%)$ for rise times $<1 \mu$ 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)	

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