

## Intrinsically-Safe Multimeter Ex-DM 1000



**The Ex-DM 1000 multimeter is a high performance measurement device for exacting industrial and electronic applications within and outside Ex-hazardous areas of zone 2 & zone 1 according to IEC/CENELEC.**

- 11 functions to choose from
- 4 1/2 digit display with bar indicator
- Distinct background lighting
- Min / max / avg. function
- Splash-proof & Dust-proof
- CAT III 1000 Volt as of EN 61010-1

**Ex-Data:**

Ex designation:  
Ex II 2 G EEx ia IIC T4

EC-Certificate of conformity:  
TUV 01 ATEX 1658 x

**Standard delivery:**

Ex-DM 1000 with measuring leads, Crocodile clips and holster

**Accessories:**

Carry case  
DKD-Certificate for all ranges  
Calibration-Certificate

The Ex-DM 1000 offers all the functions of a high performance measurement instrument for both within and outside explosion-endangered areas of zone 2 & zone 1 according to CENELEC\*. This safety feature is complemented by testing in accordance with EN 61010-1 test for CAT III 1000V and the easily replaceable fuse (400mA and 10A-ranges). The "input-alert" facility ensures that the selected range corresponds with the attached measuring sockets.

**Combi device**

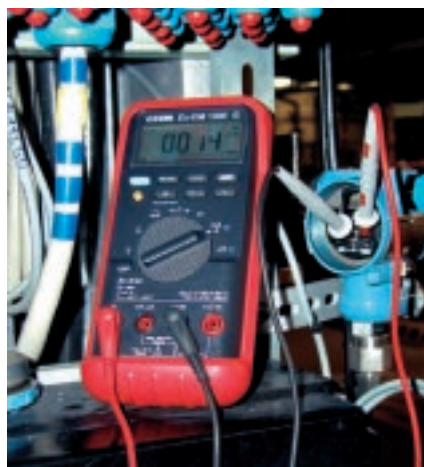
The industrial areas of application of the Ex-DM 1000 are in the conventional electrical engineering fields as well as in the Ex-areas for measurement, control and maintenance of installations. The perfect technique enables applications which are state-of-the-art today and which this multi-device easily masters in everyday industrial life.

\*Complying with the parameters and maximum values specified and approved.

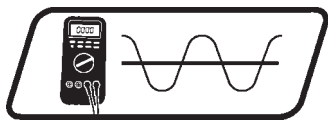
**Technical data:**

A/D converter  
 Reference temperature range  
 Operating temperature range  
 Storage temperature range  
 Reference humidity range  
 Battery  
 Battery life  
 Dimensions (LxWxH) with holster  
 Weight

40 measurings per second  
 +18°C ... +28°C  
 -20°C ... +50°C  
 -40°C ... +60°C  
 0 ... 80% relative humidity (0 ... 35°C)  
 9V-block as of IEC 6LR61 (according to specification)  
 approx. 400 hours  
 201 x 98 x 42 mm  
 approx. 715 g



fast, reliable, accurate



With the explosion-protected digital multimeter Ex-DM 1000, ecom offers the best that measurement technology has to offer; also for the Ex-area. Safe, powerful, easy to use and with all these features approved by the Technical Monitoring Association, it guarantees a high degree of long-term investment and working safety. The multirange meter Ex-DM 1000 with the Ex-classification EX II 2G Ex ia IICT4 according to ATEX (Technical Monitoring Association approval TÜV 01 ATEX 1658 X) satisfies a large number of applications both within and outside Ex-hazardous areas.

**FLEXIBILITY THROUGH EX-PROTECTION**

For the first time, an instrument is available which complies with the new ATEX standard (from the middle of 2003 the new Ex-standard) with additional approval for the connection to intrinsically-safe and non intrinsically safe electrical circuits. For the user this means that with the Ex-DM 1000, parameters of max. 65V and max. 5A in intrinsically-safe circuits are permissible and measurements up to max. 1000V and max. 10A on non-intrinsically-safe circuits are possible and permissible. Measurements up to max. 1000V and max. 10A on non intrinsically-safe circuits (in pressure encapsulated housings or Ex-three phase power sockets) assume that the existing safety regulations are adhered to.

**INDISPENSABLE**

Conventional practical design and functional features combined with reliable robust technology and a high degree of safety make the Ex-DM 1000 an indispensable companion for MSR technicians, engineers and those responsible for maintenance and commissioning within and outside of Ex-hazardous areas.

**Specification**

DC Voltage	Range	400mV....1000V
	Resolution	0,1 mV....1V
	Accuracy	±0,05....±0,1% + 1 Digit
	Input Impedance	10 MΩ; <100pF
	Overload protection	1000V RMS
AC Voltage	Range	400mV....1000V
	Resolution	0,1 mV....1V
	Accuracy	±0,7 ....+2% +2....20 Digit
	Input Impedance	10 MΩ;<100pF
	Overload protection	1000V RMS
Direct Current	Range	400µA....10A
	Resolution	0,1µA....10mA
	Accuracy	±0,2....±0,4% + 2Digit
Alternating Current	Range	400µA....10A
	Resolution	0,1µA....10mA
	Accuracy	±1% + 2....4Digit
Resistance	Range	400Ω....40MΩ
	Resolution	0,1Ω....0,01 MΩ
	Accuracy	±0,2....±1% + 1....3Digit
	Overload protection	1000V RMS
Contuctance	Range	40,00nS
	Resolution	0,01nS
Continuity Test	Level	k. A.
	Overload protection	1000V RMS
Diode Test	Voltage	3V
	Accuracy	±2% + 1 Digit
Frequency	Range	199,99Hz....<200kHz
	Resolution	0,01 Hz....0,1Hz
	Accuracy	±0,005% + 1Digit
Duty cycle	Range	0,0....99,9%
Capacity	Range	5nF....5µF
	Resolution	0,01 nF....0,01 µF
	Accuracy	±1 ....±1,9% + 3Digit
Remark	Measurements in Ex-hazardous area: $U_i \leq 65V, I_i \leq 5A$ Measurements outside Ex-hazardous area: $U_i \leq 1000V, I_i \leq 10A$	

