

# 5000 count digital multimeter for use in dangerous or explosive atmospheres



An intrinsically safe multimeter

- EEx ib group I, IIc and temperature class T6 assigned specifications
- Logic signal measurement and ADP input
- MIN MAX functions
- Bar graph with zoom (x5) and centre zero
- Robust casing and IP 66 watertightness
- Protection by 500 mA intrinsic safety fuse for the current range

## MX 51 ExB : 5000 count digital multimeter for dangerous and explosive atmospheres

Meets with EN 50-014 and EN 50-020 standards, EEx ib groupe I and IIc assigned specifications, temperature class T6 (Electrical equipment for use in explosive atmospheres) - Certificates LCIE 91.C6063X for group IIc and LCIE 92.C8003X for group I

TECHNICAL SPECIFICATIONS		MX 51 ExB				
<b>• DC voltages</b>						
Ranges	500 mV	5 V	50 V	500 V*	1000 V*	
Resolution	100 $\mu$ V	1 mV	10 mV	100 mV	1 V	
Basic accuracy	0.15%R + 2D	2%R + 1D	2%R + 1D	2%R + 1D	2%R + 1D	
Input impedance	> 1 G $\Omega$	11 M $\Omega$	10 M $\Omega$	10 M $\Omega$	10 M $\Omega$	
Protection	1100 V <sub>DC</sub> - •)) for V > 1000 V					
<b>• AC voltages</b>						
Ranges	500 mV	5 V	50 V	500 V*	750 V*	
Resolution	100 $\mu$ V	1 mV	10 mV	100 mV	1 V	
Bandwidth	40 Hz to 1 kHz					
Basic accuracy (40 to 400 Hz)	0.75%R + 3D	0.75%R + 3D	0.75%R + 3D	0.75%R + 3D	1%R + 4D	
(400 Hz to 1 kHz)	2%R + 3D	1.7%R + 3D	1.7%R + 3D	1.7%R + 3D	1.7%R + 3D	
Input impedance	> 1 G $\Omega$	11 M $\Omega$	10 M $\Omega$	10 M $\Omega$	10 M $\Omega$	
Protection	1100 V <sub>DC</sub> - •)) for V > 750 V					
<b>• DC currents</b>						
Ranges	500 $\mu$ A	5 mA	50 mA	500 mA		
Resolution	100 nA	1 $\mu$ A	10 $\mu$ A	100 $\mu$ A		
Basic accuracy	1.2%R + 2D	1%R + 1D	0.1%R + 3D	1%R + 1D		
Protection	Fuses : 500 mA intrinsic safety					
<b>• AC currents</b>						
Ranges	500 $\mu$ A	5 mA	50 mA	500 mA		
Resolution	100 nA	1 $\mu$ A	10 $\mu$ A	100 $\mu$ A		
Bandwidth	40 to 1 kHz					
Basic accuracy (40 to 400 Hz)	1.5%R + 3D	1.5%R + 3D	1%R + 3D	1.5%R + 3D		
(400 Hz to 1 kHz)	2.5%R + 3D	2.5%R + 3D	2%R + 3D	2.5%R + 3D		
Protection	Fuses : 500 mA intrinsic safety					
<b>• Resistances</b>						
Ranges	500 $\Omega$ - 5 k $\Omega$ - 50 k $\Omega$ - 500 k $\Omega$ - 5 M $\Omega$ - 40 M $\Omega$					
Resolution	0.1 $\Omega$ - 1 $\Omega$ - 10 $\Omega$ - 100 $\Omega$ - 1 k $\Omega$ - 10 k $\Omega$					
Basic accuracy	0.3%R + 2 D / 5 k $\Omega$ to 500 k $\Omega$ and 2%R + 2D / 40 M $\Omega$					
Max open-circuit voltage	1.5 V					
Protection	380 V <sub>AC</sub> (electronic mechanism)*					
<b>• Continuity</b>						
Detection threshold	300 $\Omega$ and 20 $\Omega$ •)) (with 2 different audible signals)					
<b>• Diode test</b>						
Diode voltage measurements	1.999 V					
Current	1 mA $\pm$ 30%					
<b>• Other functions</b>						
Logic level detection	« OPEN » open circuit or negative V; « LO » V < 1.3 V; « HI » V $\geq$ 1.3 V; « OL » V $\geq$ 20.00 V					
Adapter input	500 mV range					

\* Operating voltages are limited to 60 V peak value or currents to 500 mA.

GENERAL SPECIFICATION	
Display	5000 counts
Bar graph	50 segments
Auto switch-off	Yes
Safety	EN 50-014 - EN 50-020 - Ex ib IIc T6
Operating temperature	-10 to 40°C
Storage temperature	-45 to 80°C
Power	9 V battery (6LF22 or 6LR61)
Dimensions	40 x 82 x 189 mm
Weight	400 g

Characteristics subject to modifications according to technological developments.

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