

# metrix®

On-site digital multimeters  
adapted for difficult environments

## MX 57Ex, the ATEX-certified multimeter

**MX 20HD**  
**MX 44HD**  
**MX 57Ex**  
**MX 58HD**  
**MX 59HD**



**A range of site-proof  
multimeters adapted  
to the most difficult  
requirements**

metrix® A Brand of

 **CHAUVIN  
ARNOUX**  
GROUP

**METRIX®** has designed a new range of on-site multimeters to deal with the requirements of difficult environments: humidity, water, gas, dust, etc.

**These specific multimeters can be used in a wide range of sectors: agri-food, cement works, paper mills, mechanical industries, transport, automotive industry, etc.**

**Each user will find a perfect match for their requirements in this range of 5 instruments.**

## ERGONOMICS

Equipped with a proven, highly-resistant casing, these multimeters are made of self-extinguishing materials (casing and circuit).

For greater safety, the battery/fuse compartment is separate and the fuse self-testing and low battery detection systems (LowBat 50 h) are automatic (depending on the models).

The protective sheath includes a stand for optimized handling.

## PRODUCT ADVANTAGES

Display resolutions from 2,000 to 50,000 counts are available, as well as a fast 34-segment analogue bargraph (MX 58HD, MX 59HD and MX 57Ex).



**Multiple measurement possibilities across the range from the MX 20HD to the MX 59HD.**

- ▶ voltage, current
- ▶ HOLD mode, REL mode
- ▶ diode test, continuity test
- ▶ resistance, frequency, duty cycle
- ▶ capacitance and dB
- ▶ temperature

**The ATEX-certified**



**MX 57Ex and**



**A single tool for all your measurements!**

**Usable in both explosive and non-explosive environments!**

The new version of this multimeter can now be used **outside hazardous environments** as well. Use in explosive atmospheres involving gas or dust in the following conditions:

- Mines: category M2
- Surface industries: category 2 (gas and dust) - zones 1 & 2 (gas) and zones 21 & 22 (dust)

The MX 57Ex is a comprehensive instrument which complies with the applicable standards and regulations. It also complies with the stipulations of the European directives:

- Low voltage 2006/95/CE
- Electromagnetic compatibility EMC 89/336/CE and 93/68/CE
- Explosive environments ATEX 94/9/CE

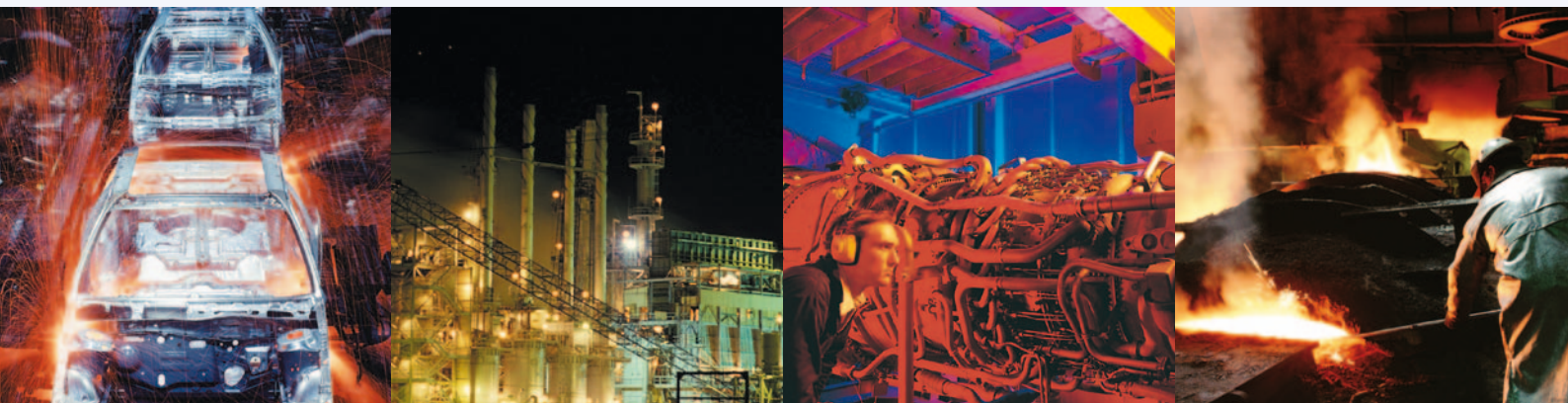




# Measurements



TECHNICAL SPECIFICATIONS	MX 20HD	MX 44HD	MX 57Ex	MX 58HD	MX 59HD
	AVG		TRMS		
• DC voltage					
	5 calibres from 200 mV to 1,000 V	5 calibres from 400 mV to 1,000 V	5 calibres from 500 mV to 600 V		
Accuracy	0.8 %R + 4 D	0.3 %R + 1 D	0.025 %R + 2 D	0.1 %R + 2 D	0.1 %R + 2 D
• DC voltage					
	4 calibres from 2 V to 750 V	5 calibres from 400 mV to 750 V	5 calibres from 500 mV to 600 V		
Accuracy	1 %R + 8 D	0.8 %R + 3 D	0.3 %R + 30 D	1 %R + 3 D	0.3 %R + 30 D
Bandwidth	DC at 500 Hz	DC at 1 kHz	DC at 50 kHz	DC at 50 kHz	DC at 100 kHz
• DC current					
	20 mA, 200 mA & 10 A	40 mA & 10 A	500 µA, 5 mA, 50 mA & 500 mA	5 mA, 50 mA, 500 mA & 10 A	500 µA, 5 mA, 50 mA, 500 mA & 10 A
Accuracy	1.2 %R + 1 D	0.8 %R + 2 D	0.2 %R + 2 D	0.2 %R + 2 D	0.05 %R + 2 D
• AC current					
	20 mA, 200 mA & 10 A	40 mA & 10 A	500 µA, 5 mA, 50 mA & 500 mA	5 mA, 50 mA, 500 mA & 10 A	500 µA, 5 mA, 50 mA, 500 mA & 10 A
Accuracy	1.5 %R + 8 D	1.2 %R + 4 D	0.6 %R + 30 D	1 %R + 3 D	0.6 %R + 30 D
Bandwidth	DC at 500 Hz	DC at 1 kHz	DC at 5 kHz	DC at 30 kHz	DC at 30 kHz
• Resistance & Continuity					
	6 ranges from 200 Ω to 20 MΩ	6 ranges from 400 Ω to 40 MΩ	6 ranges from 500 Ω to 50 MΩ		
Accuracy	0.8 %R + 4 D	0.3 %R + 1 D	0.07 %R + 2 D	0.1 %R + 3 D	0.07 %R + 2 D
Continuity	Buzzer for R<1,000 Ω	Threshold from 20 Ω to 40 Ω Response time < 100 ms Buzzer	Detection threshold: from 10 Ω to 20 Ω Response time 1 ms Buzzer		
• Diode test					
	1.2 to 1.8 V	0 to 3 V	0 to 2 V		
• Capacitance					
Range	-	5 ranges from 4 nF to 40 µF	7 ranges from 50 nF to 50 mF	7 ranges from 50 nF to 50 mF	
Accuracy	-	2 %R + 4 D	1 %R + 2 D		
• Frequency					
Range	-	-	Range from 0.62 Hz to 500 kHz		
Accuracy	-	-	0.03 %R + 2 D		
• Temperature					
	-		Range from -200 °C to +800 °C / Pt100 or Pt1000 platinum resistance probes	-	Range from -200 °C to +800 °C / Pt100 or Pt1000 platinum resistance probes
• Other measurements					
	DATA HOLD mode	HOLD mode, REL mode	Duty cycle, dB function and U2/R resistive power, Pulse width, timer, event counter	Duty cycle	Duty cycle dB function



GENERAL SPECIFICATIONS	MX 20HD	MX 44HD	MX 57Ex	MX 58HD	MX 59HD
• Display					
	2,000 counts Height of digits 17 mm – 2 meas/s	4,000 counts Height of digits 14 mm – 2 meas/s	50,000 counts Height of digits 14 mm – 2 meas/s	5,000 counts Height of digits 14 mm – 2 meas/s	50,000 counts Height of digits 14 mm – 2 meas/s
• Bargraph					
	–	42-segment bargraph 20 meas/s	34-segment rapid analogue bargraph 20 meas/s		
• Safety & Certification					
	EN/IEC 61010-1 600 V CAT II	EN/IEC 61010-1 600 V CAT III	ATEX 94/9/CE Directive EN/IEC 60079-0 – EN/IEC 60079-11 EN/IEC 61241-11 – EN/IEC 61241-0 EN/IEC 61010-1 – 600 V CAT III CE inspection certificate number type LCIE 02 ATEX 6005 X and additional clauses LCIE 02 ATEX 6005X / 01, 02, 03	EN/IEC 61010-1 600 V CAT IV	EN/IEC 61010-1 600 V CAT IV
• EMC					
	EN 61326-1				
• Calibration					
			Locked by PC software (option)		
• Temperature					
Operation	0 °C to +50 °C		0 °C to +50 °C		
Storage	-20 °C to +60 °C		-40 °C to +70 °C		
• Power supply					
	2 x 1.5 V batteries	1 certified 9 V alkaline battery with low battery charge indicator			
• Battery life					
	250 hours	500 hours Auto-shutdown after 30 min	300 hours Automatic shutdown	500 hours & auto-shutdown function	
• Ingress protection					
	IP67				
• Dimensions					
	189 x 82 x 40 mm			230 x 155 x 65 mm	
• Weight					
	400 g			500 g	
• Guarantee					
	3 years				

## TO ORDER:

**MX0020HD:** One MX20HD multimeter delivered in blister pack with 1 set of safety test-probe leads, 2 x 1.5 V batteries, 2 fuses installed, 1 protective sheath and 1 operating manual.

**MX0020HDL:** One MX0020HD delivered in a rigid carrying case with measurement accessories kit (1 set of crocodile clips and 1 set of hook-type wire grips).

**MX0044HD:** One MX44HD multimeter delivered in blister pack with 1 set of safety test-probe leads, 1 x 9 V battery, 2 fuses installed, 1 protective sheath and 1 operating manual.

**MX0044HDL:** One MX0044HD delivered in a rigid carrying case with measurement accessories kit (1 set of crocodile clips and 1 set of hook-type wire grips).

**MX0057CX:** One MX57Ex multimeter delivered in a carrying case with 1 set of safety test-probe leads, 1 x 9 V battery, 1 spare intrinsic-safety fuse and 1 operating manual.

**MX0058HD:** One MX58HD delivered in blister pack with 1 set of safety PVC test-probe leads, 1 protective sheath, 1 x 9 V battery, 2 fuses installed and 1 operating manual.

**MX0058HDL:** One MX0058HD delivered in a rigid carrying case with measurement accessories kit (1 set of crocodile clips and 1 set of hook-type wire grips).

**MX0059HD:** One MX59HD multimeter in blister pack with 1 set of safety silicone test-probe leads, 1 protective sheath, 1 x 9 V battery, 2 fuses installed and 1 operating manual.

**MX0059HDL:** One MX0059HD delivered in a rigid carrying case with measurement accessories kit (1 set of hook-type wire grips and 1 CMS Kelvin clip).

### Accessories:

- Rigid carrying case **P01298004**
- Accessories kit for electronics **P01101894**
  - 1 set of straight/elbowed leads,
  - 1 set of crocodile clips,
  - 1 set of hook-type wire grips,
  - 1 set of tapered probes.
- Accessories kit for electricity **P01101895**
  - 1 set of crocodile clips,
  - 1 set of crocodile-type wire grips,
  - 1 set of safety test probes,
  - 1 set of safety test-probe leads.
- Optical communication kit/RS232 for MX58HD, MX59HD **Sx-ASYC2HD**
  - 1 optical/RS232 serial connection unit,
  - 1 CD-ROM containing the SX-DMM acquisition software,
  - 1 operating manual.
- Metrology software on CD-ROM for MX58HD and MX59HD **Sx-ASYC2C/B**
- Metrology software for MX57Ex **MX57Ex-CAL**



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For assistance and ordering