

MX 20HD – MX 44HD MX 57EX – MX 58HD – MX 59HD

On-site digital multimeters adapted for difficult environments



IP
67

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



MX 57Ex,
the ATEX-certified
multimeter 



MX 20HD - MX 44HD MX 57EX - MX 58HD - MX 59HD

METRIX® has designed a 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.



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

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).

- ▶ 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 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  IM2
- Surface industries: category 2 (gas and dust)  II2GD
 - Zones 1 & 2 (gas) Ex ib I and Ex ib IIC T5 or T4 or T3
 - and zones 21 & 22 (dust) Ex ib D21 IP6X T°...°C

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 2014/34/UE



On-site digital multimeters



MEASUREMENTS

Technical specifications	MX 20HD	MX 44HD	MX 57Ex	MX 58HD	MX 59HD
	AVG		TRMS		
DC TENSION	5 calibres from 200 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	0.05 %R + 2 D
AC VOLTAGE	4 calibres from 2 V 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 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 < 1000 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		
TEST DIODE	1.2 to 1.8 V	0 to 3 V	0 to 2 V		
CAPACITANCE	5 ranges from 4 nF to 40 µF		7 ranges from 50 nF to 50 mF		
Range	-	-	-	-	-
Accuracy	-	2 %R + 4 D	-	1 %R + 2 D	-
FREQUENCY	-		From 0.62 Hz to 500 kHz		
Range	-	-	-	-	-
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 U ² /R resistive power, Pulse width, timer, event counter	Duty cycle dB function	Duty cycle

MX 20HD - MX 44HD MX 57EX - MX 58HD - MX 59HD

On-site digital multimeters

General specifications	MX 20HD	MX 44HD	MX 57Ex	MX 58HD	MX 59HD
DISPLAY	2,000 cts Height of digits 17 mm – 2 meas/s	4,000 cts Height of digits 14 mm – 2 meas/s	50,000 cts - 2 meas/s Height of digits 14 mm – 2 meas/s	5,000 cts - 2 meas/s Height of digits 14 mm – 2 meas/s	50,000 cts - 2 meas/s 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 2014/34/UE 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, 04	EN/IEC 61010-1 600 V CAT IV	EN/IEC 61010-1 600 V CAT IV
EMC	EN 61326-1				
CALIBRATION	By PC software (option) with casing closed				
TEMPERATURE	Operation Storage		0 °C to +50 °C -20 °C to +60 °C		
POWER SUPPLY	2 x 1.5 V batteries	One certified 9 V alkaline battery with low battery charge indicator	One 9 V alkaline battery certified Ex (6LR61, MN1604) with low battery charge indicator	One 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	
GARANTEE	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 testprobe leads, 1 x 9 V battery, 2 fuses installed, 1 protective sheath and 1 perating 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 (0.5 A - 125 V) certified Ex 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 testprobe 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 electricity: **P01295459Z**
 - 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 ASYC II **SX-ASYC2HD**
- Acquisition software for ASYC II **SX-DMM2**
- Metrology software on CD-ROM for MX58HD and MX59HD **SX-ASYC2C/B**
- Metrology software for MX57Ex **MX57Ex-CAL**



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