

**PRECISION  
QUALITY  
SAFETY**

TRMS DIGITAL MULTIMETERS  
FOR UNIVERSAL USE IN  
NUMEROUS APPLICATIONS WITH  
DEMANDING REQUIREMENTS



**METRAHIT PM SERIES**

TECH • XTRA • PRIME



**METRAHIT AM SERIES**

BASE • PRO • TECH • XTRA



Safe and Reliable  
Multimeters for  
Diverse Applications



METRAHIT AM BASE



METRAHIT AM PRO



METRAHIT AM TECH



METRAHIT AM XTRA



METRAHIT PM TECH



METRAHIT PM XTRA



METRAHIT PM PRIME

# AM SERIES – ADVANCED MULTIMETER

## TRMS Digital Multimeter with 12,000 Digits

Leading-edge technology down to the last detail: these rugged digital multimeters from the METRAHIT AM Series offer convincing, high-performance features in every respect. They're equipped with state-of-the-art technology and they assure highly precise results. Their ergonomic design provides for maximized ease of use and safety. With their broad range of functions, they're ideally suited for demanding measuring tasks in a great variety of applications.

### Features

- Resolution:  $\pm 12,000$  digits, 4½-place
- 3 connector jacks with patented automatic blocking sockets (ABS)
- DAkkS calibration certificate included in scope of delivery
- Large, illuminated display with 15 mm character height
- TRMS AC/DC function
- Voltage measurement with a basic accuracy of  $\pm 0.05\%$  (V DC)
- Automatic/manual measuring range selection
- Automatic storage of measured values: DATA/MIN/MAX
- Measuring category: 1000V CAT III and 600V CAT IV
- V (AC, DC, AC+DC), A (AC, DC, AC+DC, with clamp), Ohm, °C, continuity, diode, Hz (V, A), capacitance, duty cycle

12.000  
Digits

ABS

DAkkS

### Scope of Delivery

- 1 multimeter
- 1 pair of safety measurement cables (1.2 m) with 4 mm test probes, 1000V CAT III, 600V CAT IV (KS17-2)
- 2 batteries, 1.5V, type AA
- 1 set of condensed operating instructions, German/English
- 1 CD ROM with operating instructions
- 1 DAkkS calibration certificate
- rubber holster (AM XTRA)



# PM SERIES – PROFESSIONAL MULTIMETER

## TRMS Digital Multimeter with 60,000 / 300,000 Digits

With a multimeter from the METRAHIT PM series, you get an ultramodern, top quality measuring instrument with unique precision: with resolution of up to 300,000 digits and basic accuracy of up to 0.02%, these instruments assure extremely reliable results. Thanks to their broad-ranging scope of functions, they cover an extensive spectrum of demanding measuring tasks and their ergonomic design makes it a pleasure to work with them every day.

### Features

- Resolution:  $\pm 60,000/300,000$  digits
- 3 connector jacks with patented automatic blocking sockets (ABS)
- DAkkS calibration certificate included in scope of delivery
- Infrared and Bluetooth interfaces (optional for PM PRIME)
- Large, illuminated display with 15 mm character height
- TRMS AC/DC function
- Voltage measurement with a basic accuracy of  $\pm 0.05\%$  / PM PRIME 0.02% (VDC)
- Automatic/manual measuring range selection
- Automatic storage of measured values: DATA/MIN/MAX
- Communication with a PC by means of METRAwin10 software
- Measuring category: PM TECH + XTRA 1,000 V CAT III / 600 V CAT IV, PM PRIME 600 V CAT III / 300 V CAT IV
- V (AC, DC, AC+DC), A (AC, DC, AC+DC, with clamp), Ohm, °C, dB, continuity, diode, Hz (V, A), capacitance, duty cycle

60.000/  
300.000  
Digits

ABS

DAkkS

IR



### Scope of Delivery

- 1 multimeter
- 1 pair of safety measurement cables (1.2 m) with 4 mm test probes, 1000V CAT III, 600V CAT IV (KS17-2)
- 2 batteries, 1.5V, type AA
- 1 set of condensed operating instructions, German/English
- 1 CD ROM (multilingual operating instructions, METRAwin 10 demo software)
- 1 DAkkS calibration certificate
- 1 rubber holster
- 1 HC20 hard case (Metrahit PM TECH and XTRA)



## FUNCTIONS

Function	METRAHIT AM BASE	METRAHIT AM PRO	METRAHIT AM TECH	METRAHIT AM XTRA
Clip function	■	–	■	–
Frequency measurement	100 kHz	100 kHz	100 kHz	1 MHz
Duty cycle	–	–	–	■
Temperature °C/°F	TC (K)	TC (K)	TC (K)	TC (K)/RTD
Power pack connector socket	–	–	–	■
IR interface	–	–	–	■
Data logger	–	–	–	■
VAC with low-pass filter	–	■	■	■
Rubber holster	optional	optional	optional	■
TRMS bandwidth ( $V_{AC}$ )	1 kHz	10 kHz	10 kHz	20 kHz
TRMS current measurement	–	0.1 mA ... 10(16) A	1 $\mu$ A ... 10 (16) A	10 nA ... 10(16) A
Capacitance measurement	–	–	■	■
<b>Article</b>	<b>M241A</b>	<b>M242A</b>	<b>M243A</b>	<b>M240A</b>

## FUNCTIONS

Function	METRAHIT PM TECH	METRAHIT PM XTRA	METRAHIT PM PRIME	METRAHIT PM PRIME (BT)
Clip function	■	■	■	■
Frequency measurement	300 kHz	1 MHz	1 MHz	1 MHz
Duty cycle	–	■	■	■
Temperature °C/°F	TC (K)/RTD	TC (K)/RTD	TC (K)/RTD	TC (K)/RTD
Power pack connector socket	–	■	■	■
IR interface	■	■	■	■
Bluetooth	–	–	–	■
Data logger	–	■	■	■
VAC with low-pass filter	■	■	■	■
Rubber holster	■	■	■	■
TRMS bandwidth ( $V_{AC}$ )	20 kHz	100 kHz	100 kHz	100 kHz
TRMS current measurement	1 $\mu$ A ... 10 (16) A	10 nA ... 10(16) A	1 nA ... 10A (16A)	1 nA ... 10A (16A)
Capacitance measurement	■	■	■	■
<b>Article</b>	<b>M253A</b>	<b>M250A</b>	<b>M248A</b>	<b>M248B</b>

**CAT IV**





# ADDED VALUE – FROM GOSSEN METRAWATT

## TRAINING CENTER

Ongoing qualification enjoys top priority, because complex measuring tasks, standards and regulations are subject to continuous change. Our instructors are experienced experts who are familiar with the requirements based on actual practice and always keep themselves up to date.

**We can provide you with:**

- Training at GMC-I's training center
- Training on-site at your location
- Individualized training concepts, customized to meet your needs
- Webinars on selected topics



## PRODUCT SUPPORT

Our product support department makes numerous support services available, regardless of whether you need to solve a problem with a product, require on-site technical support, want help with one of our software products or are seeking technical advice regarding standards or measuring applications.

**We can provide you with:**

- Telephone and e-mail support for technical questions and problems
- Consultation concerning applicable standards and products
- Software support
- Extensive FAQs



# ADDED VALUE – FROM GOSSEN METRAWATT

## CALIBRATION CENTER

Calibration as a standard feature is an essential QA factor for professional test equipment monitoring. Our calibration center is accredited per DIN EN ISO / IEC 17025 as a DAkkS calibration lab under registration no. D-K-15080-01-01.

### Our services:

- DAkkS calibration
- Factory calibration
- Test equipment monitoring
- Verification of energy meters at our state-approved test laboratory

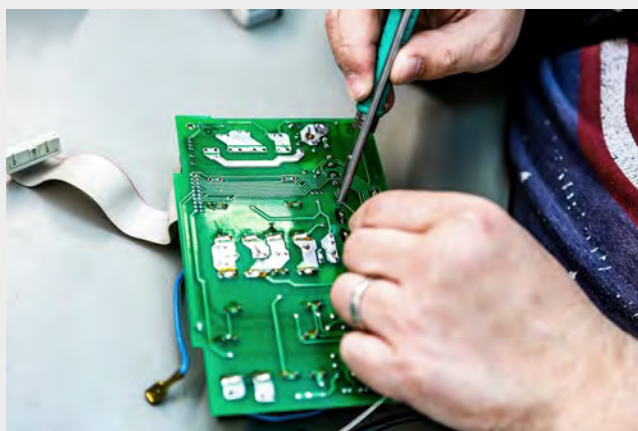


## SERVICE CENTER

In order to assure that your measuring and test instruments are always ready for use, the employees at our GMC-I Service Center complete any necessary repairs quickly, reliably and economically.

### Our services:

- Repair services executed by qualified personnel
- Rental instrument service
- Replacement parts for a long service life
- Update service for reliable measuring and testing in the future as well



# AM SERIES – ADVANCED MULTIMETER

## METRAHITI AM BASE

Universal multimeter with high-impedance measuring inputs, e.g. for power utilities – current measurement with sensors only

- 12 multimeter functions
- Current measurement via current clamp sensors with adjustable transformation ratio of 1 mV:1 mA to 1 mV:1 A

## METRAHITI AM PRO

Low-pass filter and low input resistance for measurements at frequency converters

- 16 multimeter functions
- Alternating voltage measurement with reduced input impedance (low impedance, 1 MΩ)
- 1 kHz/-3 dB low-pass filter can be activated
- Direct TRMS current measurement up to 16 A

## METRAHITI AM TECH

Optimized current measuring range for measurements at measuring transducers in the process industry

- 20 multimeter functions
- Direct current measurement with enhanced accuracy for measurements at measuring transducers
- Broad range capacitance measurement

## METRAHITI AM XTRA

System multimeter with data logger, IR interface to PC and power pack socket

- 23 multimeter functions
- Direct current measurement from 10 nA to 10 A, 16 A for short periods
- Temperature measurement with Pt100(0) resistance sensors
- Broad range capacitance measurement
- Frequency and duty cycle measurement for 2 to 5 V signals up to 1 MHz
- Data memory (15,000 measured values) and bidirectional IR interface
- Rubber holster

# PM SERIES – PROFESSIONAL MULTIMETER

HIGH RESOLUTION  
up to 300,000 digits

## METRAHITI PM TECH

Optimized current measuring ranges for measuring transducers in the process industry.

- 23 multimeter functions
- Adjustable clamp factor for measurement via current clamp sensors and transformers
- Broad range capacitance measurement
- Current ranges optimized for 4 to 20 mA measuring transducers

## METRAHITI PM XTRA

System multimeter with data logger, IR interface to PC and power pack socket plus memory for 64,000 measured values.



- 26 multimeter functions
- Direct current measurement from 10 nA to 10 A, 16 A for short periods
- Temperature measurement with Pt100(0) resistance sensors
- Broad range capacitance measurement
- Frequency and duty cycle measurement for 2 to 5 V signals up to 1 MHz
- Integrated data memory for 64,000 measured values

## METRAHITI PM PRIME

Precision digital multimeter with TRMS measurement and Bluetooth option

- Resolution: 300,000 digits
- Triple display, display illumination can be activated
- 1 kHz/-3 dB low-pass filter can be activated
- Direct current measurement from 1 nA to 10 A, 16 A for short periods
- Temperature measurement with PT100/1000 resistance sensors
- Broad range capacitance measurement
- TRMS AC and AC + DC, 100 kHz bandwidth
- Measurement data memory for up to 300,000 measured values
- Instrument can be remote controlled via IR or Bluetooth interface (device variant M248B only)

**GMC INSTRUMENTS**

 **GOSSEN METRAWATT**  
 **CAMILLE BAUER**

GMC-I Messtechnik GmbH  
Südwestpark 15 ■ 90449 Nürnberg ■ Germany  
Phone: +49 911 8602-999 ■ Fax: +49 911 8602-125

[www.gossenmetrawatt.com](http://www.gossenmetrawatt.com) ■ [export@gossenmetrawatt.com](mailto:export@gossenmetrawatt.com)