


**NEW**

Measurement is the comparison of unknowns with pre-established quantities. Correspondingly, fixed quantities are those upon which one can depend anywhere at any time.

Our new **Starline digital multimeters** are setting reliable standards in technology, design and safety.

The instruments are distinguished by their exemplary technology including, for example, 3 connector jacks with **automatic blocking sockets** (patented), auto-range current measurement from 100 $\mu$ A (resolution: 10nA) to 10A (16A), large light-blue **illuminated display**, separate battery and fuse compartments, **IP 52** protection, 600 V CAT IV and 1000 V CAT III measuring categories, **extra-large display characters** (15 mm) and an **analog bar graph** for dynamic processes – and they're made in Germany and furnished with a **DKD certificate**.



100 Years for the Future of Measuring Technology

# NEW

## INITIAL START-UP

Accurate measurement of control signals and the adjustment of characteristic electrical values is frequently required for initial start-up of new machinery. And precise digital and analog displays provide for fast, safe results. With the help of the filter function, the RMS value and the fundamental frequency can be measured with the METRAHIT PRO even with greatly distorted signals, for example as required for frequency converters (VFD).

## TRAINING

The need for an analog and a digital display in training applications often depends upon the respective test setup. METRAHIT BASE, PRO and X-TRA multimeters include both display types in a single instrument. MAN range, DATA hold, ABS and other features allow for use of the multimeters in a wide variety of applications. Inadvertent switching from voltage to current measurement is prevented mechanically by means of patented automatic blocking sockets (ABS).

## COMMERCIAL TRADES

Demanding requirements which assure the safety of the operator as well as the measuring instrument are basic prerequisites for the use of multimeters in the commercial trades. Storage of measured values (DATA hold) makes it possible for the operator to concentrate fully on the measuring point. The highest possible measuring category, CAT IV, and the highest possible input voltage of up to 1000 V (CAT III) offer maximum safety for the user. Electrical values from electrical installations can be precisely acquired with METRAHIT multimeters: The TRMS value for a given measured quantity can even be measured with distorted waveshapes, for example as required for switched-mode power supplies.

## LABORATORY

Measured value storage, a PC interface and an analog display in a single digital multimeter (METRAHIT X-TRA) assure maximum measuring convenience for professional users when balancing circuits. All measured values can be transmitted to the PC either online or from memory, where they can be subsequently processed with METRAVIEW software.

## SERVICE

A wide variety of measurements such as voltage, frequency, capacitance and current are required for testing electronic circuitry, for example in aircraft cockpits. In particular, field use necessitates rugged, high quality design. METRAHIT hand-held multimeters assure ideal measuring convenience for service calls thanks to features such as a protective rubber cover, IP 52 protection, a test probe holder, analog and digital display and overload protection for up to 1000 V in all ranges and functions.

## PRODUCTION

Precision digital multimeters are important tools for the reliable execution of balancing tasks, and fulfill prerequisites for high quality products. Monitoring of data from the utilized components is an important factor in production applications. Tolerance violations can be quickly and reliably detected with all METRAHIT multimeters.

## ENERGY TECHNOLOGY

Equipped with the necessary measuring category for performing measurements at the power supply source, namely CAT IV, and without low-impedance current input, the METRAHIT BASE assures maximized safety for the electrician. Current can be acquired safely in a contact-free fashion with clip-on ammeters.

METRAHIT	X-TRA	PRO	BASE
DKD certificate	✓	✓	✓
Voltage measurement	✓	✓	✓
TRMS AC and AC+DC	✓	✓	✓
Bandwidth (TRMS)	20kHz	10kHz	1kHz
Frequency measurement	1MHz	100kHz	100kHz
Current measurement	✓	✓	
Low-pass filter (1kHz)	✓	✓	
Capacitance measurement	✓		
IR-Interface	✓		
Data memory (4Mb)	✓		
Mains connection	✓		
Protective rubber cover	✓		
<b>Order number</b>	<b>M240A</b>	<b>M242A</b>	<b>M241A</b>