

# METRAmax 6

## Analog Resistance Measuring Instrument with Rough Capacitance Measurement

3-349-372-03  
1/4.06

- **Resistance measurement:** 0.05 Ω ... 1 MΩ (5 measuring ranges)
- **Capacitance measurement (rough):** 0 ... 30 000 μF
- **Continuity testing:** 0 ... 1.5 Ω by means of integrated buzzer



### Range of application

Resistance measuring instrument with analog display for industrial, service and field applications.

### Rugged housing design

The rugged plastic housing and the spring-loaded bearing jewels of the moving-coil mechanism protect the instrument against damage in the case of mechanical stress.

### Applicable Standards and Regulations

IEC 61010-1/EN 61010-1/ VDE 0411-1	Safety requirements for electrical equipment for measurement, control and laboratory use – General requirements
EN 60529 VDE 0470 part 1	Test instruments and test methods Degrees of protection provided by enclosures (IP code)
DIN EN 61326 VDE 0843 part 20	Electrical equipment for measurement, control and laboratory use – EMC requirements

### Characteristic Values

#### Measuring ranges

Resistance	Scope of measuring ranges	Value at mid-scale ( $R_i$ )	Max. Meas. current $I_{max}^{1)}$ approx.
Ω x 1 (red scale)	0.05 Ω ... 50 Ω	1 Ω	75 mA
Ω x 1	1 Ω ... 1 kΩ	20 Ω	75 mA
Ω x 10	10 Ω ... 10 kΩ	200 Ω	7.5 mA
Ω x 100	100 Ω ... 100 kΩ	2 kΩ	0.75 mA
Ω x 1000	1 kΩ ... 1 MΩ	20 kΩ	0.075 mA

Capacitance measuring range	Scope of measuring ranges	Max. meas. current $I_{max}^{1)}$
μF x 1	0 ... 30 μF	0.075 mA
μF x 10	0 ... 300 μF	0.75 mA
μF x 100	0 ... 3 000 μF	7.5 mA
μF x 1 000	0 ... 30 000 μF	75 mA

<sup>1)</sup> at battery voltage of 1.5 V

#### Acoustic continuity testing

Response range	0 ... 1.5 Ω (integrated buzzer)
Response current	365 mA
Operating current	170 mA

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### Display

Mechanism	Moving-coil mechanism with spring-loaded bearing jewels
Scale	mirror-backed
Scale length	approx. 90 mm
Pointer deflection	$\angle 0^\circ \dots 100^\circ$

### Accuracy

Error limit	$\pm 1.5\%$ of scale length $\pm 8.2\%$ as a function of the actual resistance value in the display range, which is marked by the bold section of the scale curve.
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### Reference Conditions

Ambient temperature	+ 20 °C
Position of use	horizontal

### Ambient Conditions

Storage temperatures	-25 ... 65 °C (without battery)
Relative humidity	max. 75%, no condensation allowed

### Power Supply

Battery	1 mignon cell 1.5 V per IEC LR6 (AA), leak-proof
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### Overload Protection

Fusible link	F 6.3 H/250 V per DIN VDE 0820 Part 22/EN 60127-2, fitted as an integral part
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### Electrical Safety

Safety class	II per IEC 61010-1/EN 61010-1/ VDE 0411-1
Contamination degree	2
Test voltage	2 kV~

### Electromagnetic Compatibility EMC

Interference Emission/ Interference Immunity	EN 61326-1
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### Mechanical Design

Protection	Housing IP 50, terminals IP 20
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Extract from table on the meaning of IP  
codes

IP XY (1 <sup>st</sup> digit X)	Protection against foreign object entry	IP XY (2 <sup>nd</sup> digit Y)	Protection against the penetration of water
0	not protected	0	not protected
1	$\geq 50.0$ mm dia.	1	vertically falling drops
2	$\geq 12.5$ mm dia.	2	vertically falling drops with enclosure tilted 15°
3	$\geq 2.5$ mm dia.	3	spraying water
4	$\geq 1.0$ mm dia.	4	splashing water
5	dust protected	5	water jets
6	dust-tight	6	powerful water jets

Dimensions	100 x 140 x 35 mm
Weight	approx. 0.3 kg (without battery)

### Standard Equipment

- 1 analog resistance measuring instrument (without cable set)
- 1 battery
- 1 operating instructions

### Order Information

Description	Type	Article number
Analog resistance measuring instru- ment with operating instructions	METRAMax 6	GTM3060000R0001
Cable set (1 pair of measurement cables) 1.2 m, with VDE-GS symbol (600 V CAT III 16 A)	KS17-ONE	Z110K
Cable set (1 pair of measurement cables) 1.2 m, with VDE-GS symbol (1000 V CAT III / 600 V CAT IV 16 A)	KS17-2	GTY 3620 034 P0002
Carrying pouch	F825	GTY3172100P01

For additional information concerning accessories please refer to

- the catalog „Measuring Instruments and Testers“
- our website [www.gossenmetrawatt.com](http://www.gossenmetrawatt.com)

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