GOSSEN METRAWATT

GMC-INSTRUMENTS GROUP

METRALINE VT LED and METRALINE VT LCD

2-POLE VOLTAGE TESTERS PER DIN EN IEC 61243-3

- Tested and manufactured per DIN EN IEC 61243-3
- TÜV certification
- $12\ V_{AC}$ …$1000\ V_{AC}$ and $12\ V_{DC}$ …$1500\ V_{DC}$
- Automatic polarity detection
- Quick one-hand testing of earthing contact sockets
- Load tester: load can be connected via 2 pushbuttons

- Screw-on safety caps (for CAT III 1000 V, CAT IV 600 V, GS-38)
- Impact-resistant, modern housing design
- Optical and acoustic indication for all situations
- Integrated flashlight for measuring point illumination
- Automatic on/off

APPLICATIONS

The hand-held, 2-pole voltage detectors are laid out for universal use. The modern, highly practical design facilitates fast, efficient and convenient operation.

Manufactured in accordance with DIN EN IEC 61243-3, the METRALINE VT LED and the METRALINE VT LCD facilitate safe and reliable testing of voltages from $12\ V_{AC}$ …$1000\ V_{AC}$ and $12\ V_{DC}$ …$1500\ V_{DC}$ (CAT II 1000 V / CAT III 1000 V / CAT IV 600 V). The instruments also generate a warning if dangerous voltage is present (> $50\ V_{AC}$ or > $120\ V_{DC}$). Poorly illuminated measuring points can be lit up with the integrated flashlight.

Polarity is displayed automatically during voltage tests. Live conductors can be identified by means of the single-pole phase test, and the continuity test can be used to check for uninterrupted current paths. Phase sequence can be determined in three-phase systems. RCDs (residual current circuit breakers) can also be tested in a targeted fashion by tripping them deliberately.

The METRALINE VT LCD also displays frequency, and it measures resistance and forward voltage drop in diodes.

SCOPE OF FUNCTIONS – COMPARISON

	METRALINE VT LED	METRALINE VT LCD
Display	LED	LED + Display
Voltage test	✓	✓ TRMS
Low-voltage test	✖	✓
Polarity display	✓	✓
Single-pole phase test	✓	✓
Phase sequence test	✓	✓
RCD tripping test	✓	✓
Continuity test	✓	✓
Diode test	✓	✓ Forward voltage display
Resistance measurement	✖	✓
Frequency measurement	✖	✓
Hold function	✖	✓

TECHNICAL DATA

Measuring category:	CAT II 1000V / CAT III 1000 V/ CAT IV 600 V	
Measuring mode:	30 s on (operating time), 240 s off (recovery time)	
Safety current:	Is< 3.5 mA (at 1000 V)	
Display: **(METRALINE VT LCD only)**	Display:	3-digit LCD, illuminated
	Voltage range	$0.5\ V\ldots 1000\ V_{AC}$, $0.5\ V\ldots 1500\ V_{DC}$
	Resolution	< 10 V = 0.1 V / > 10 V = 1 V
	Accuracy	> 10 V = 3% + 3 digits / < 10 V = 3% + 5 digits
	Overload display	"OL"
LED	Voltage range:	$12 V_{AC}/24\ V_{AC}/50\ V_{AC}/120\ V_{AC}/230\ V_{AC}/400\ V_{AC}/690\ V_{AC}/1000\ V_{AC}$ $12 V_{DC(\pm)}/24\ V_{DC(\pm)}/50\ V_{DC(\pm)}/120\ V_{DC(\pm)}/230\ V_{DC(\pm)}/400_{DC(\pm)}/690\ V_{DC(\pm)}/1000\ V_{DC(\pm)}$
	Tolerances:	Per DIN EN IEC 61243-3
	Warning regarding dangerous voltage:	$>50\ V_{AC}$, $>120\ V_{DC}$ (extra-low voltage – ELV)
Inherent delay:	LED: < 0.5 s / LCD: < 1 s	
Crest factor: **(METRALINE VT LCD only)**	1 V … 10 V: CF > 2.5 > 10 V … 300 V: CF = 5 > 300 V … 500 V: CF = 3 > 500 V … 750 V: CF = 2 > 750 V: CF = 1.5	
Voltage range:	$0.5\ V_{AC}\ldots 1000\ V_{AC}$ (16⅔ … 950 Hz) / $0.5\ V_{DC(\pm)}\ldots 1500\ V_{DC(\pm)}$ METRALINE VT LCD only: TRMS	
Single-pole phase test:	Measuring range:	$100\ V_{AC}\ldots 1000\ V_{AC}$ (40 … 70 Hz)
Phase sequence test:	Measuring range:	170 V … 1000 V phase-to-phase, AC 40 … 70 Hz
Continuity test:	Measuring range:	0 kΩ … 500 kΩ + 50%
Diode test with forward voltage display: **(METRALINE VT LCD only)**	Measuring range:	0 V … 2 V ± (5% + 10 digits)
	Resolution:	0.01 V
Resistance measurement: **(METRALINE VT LCD only)**	Measuring range:	0 Ω … 1999 Ω ± (5% + 10 digits)
	Resolution:	1 Ω
Frequency measurement: **(METRALINE VT LCD only)**	Measuring range:	1 Hz … 950 Hz ± (5% + 5 digits)
	Resolution:	1 Hz
	10 … 1000 V_{AC}	
Temperature:	Operation:	-15 °C … 50 °C
	Storage:	-20 °C … 60 °C, no condensation
	Humidity:	Max. 85% relative humidity
Elevation:	2000 m	
Pollution degree:	2	
Protection:	IP64	
Power supply:	2 batteries (IEC AAA, 1.5 V)	
Battery power consumption:	Approx. 80 mA	
Weight:	METRALINE VT LCD: approx. 280 g / METRALINE VT LED: approx. 275 g	
Dimensions:	Approx. 280 × 75 × 35 mm	
Cable length:	Approx. 113 cm	

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RELEVANT STANDARDS

The instrument has been manufactured and tested in accordance with the following safety regulations:

DIN EN 61243-3 IEC 61243-3	Live working – Voltage detectors – Part 3: Two-pole low-voltage type
DIN EN IEC 61326-1	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements
Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (revision)	
Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (revision)	

SCOPE OF DELIVERY

Standard Scope of Delivery:

1	Voltage tester (METRALINE VT LED or METRALINE VT LCD)
2	4 mm test probe tip adapters (round contact pins) (in holder on test probe cap)
2	Screw-on safety caps for CAT IV 600 V / CAT III 1000 V / GS-38 (in holder on test probe cap)
1	Test probe cap (on cable)
2	Batteries (1.5 V, IEC AAA)
1	Operating instructions

Available accessories ⇨ "Optional Accessories" 📄3.

OPTIONAL ACCESSORIES

POUCH FOR DUSPOL (Z611T)

ORDER INFORMATION

INSTRUMENTS

Type	Description	Article Number
METRALINE VT LED	2-pole voltage tester in accordance with EN 61324-3, LED display for predefined voltage ranges	M611G
METRALINE VT LCD	2-pole voltage tester in accordance with EN 61324-3, LED display for predefined voltage ranges and backlit LCD panel	M611H

ACCESSORIES

Type	Description	Article Number
Pouch for DUSPOL	Safe storage for METRALINE VT LED / METRALINE VT LCD	Z611T

Further information is available:

- In our Measuring Instruments and Testers catalog
- on the Internet at www.gossenmetrawatt.com

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