

# METRACLIP<sup>®</sup> 80

## Digital Clip-On Ammeter

3-349-054-03  
1/9.99

### Clip Functions

- Alternating current measurement 0 ... 1000 A AC peak
- Direct current measurement 0 ... 1000 A DC

### Multimeter Functions

- Alternating and direct voltage measurement 0 ... 600 V<sub>eff</sub>
- Frequency measurement 20 Hz ... 1 kHz

### Power Measurement

- Active, reactive and apparent power ... 600 kW/kVAr/kVA
- Power factor, even with complex waveshapes

### Additional Functions

- Bar graph and digital display
- MIN MAX and mean value storage
- Digital interface for connection to PC
- Integrated 3-phase adapter



## Characteristic Values

### Direct and Alternating Current, A DC, A DC<sub>eff</sub> and A AC<sub>eff</sub>

Measuring Range	Resolution	Accuracy	Max. Overload
0 ... 400 A	0.1 A	±1.5% of reading ±5 digits	10 kA
0 ... 1000 A	1 A		

Frequency Range 20 Hz ... 1 kHz

### Direct and Alternating Voltage, V DC, V DC<sub>eff</sub> and V AC<sub>eff</sub>

Measuring Range	Resolution	Accuracy	Max. Overload
0 ... 400 V	0.1 V	±1% of reading ±5 digits	1 kV <sub>eff</sub>
0 ... 600 V	1 V		

Frequency Range: 20 Hz ... 1 kHz

Input Impedance: 3.2 MΩ

### Frequency

Measuring Range	Resolution	Accuracy	Input Quantities	
			Current	Voltage
20.0 Hz ... 1 kHz	0.1 Hz	40 ... 70 Hz: ±0.5% rdg. 20 Hz ... 1 kHz: ±1% rdg.	20 ... 700 A <sub>eff</sub>	10 V ... 600 V <sub>eff</sub>

### Active Power, W (single phase and 3-phase)

Measuring Range	Resolution	Accuracy	Max. Overload
0 ... 40 kW	10 W	2.5% of reading ±5 digits	1 kV <sub>eff</sub> 10 kA
0 ... 400 kW	100 W		
0 ... 600 kW	1 kW		

### Apparent Power, VA (single phase and 3-phase)

Measuring Range	Resolution	Accuracy	Max. Overload
0 ... 40 kVA	10 VA	2.5% of reading ±5 digits	1 k <sub>eff</sub> 10 kA
0 ... 400 kVA	100 VA		
0 ... 600 kVA	1 kVA		

### Reactive Power, VAR (single phase and 3-phase)

Measuring Range	Resolution	Accuracy	Max. Overload
0 ... 40 kVAr	10 VAr	2.5% of reading ±5 digits	1 kV <sub>eff</sub> 10 kA
0 ... 400 kVAr	100 VAr		
0 ... 600 kVA	1 kVAr		

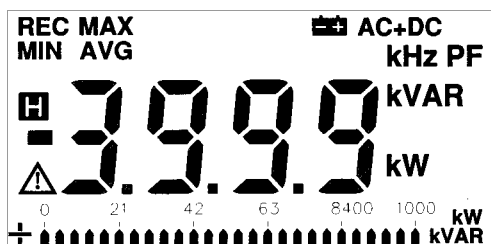
### Power Factor, PF cos φ (single phase)

Measuring Range	Resolution	Accuracy	Max. Overload
0.3 cap. ... 1.0 ... 0.3 ind.	0.01	± 3°	1 kV <sub>eff</sub> 10 kA

# METRACLIP® 80

## Digital Clip-On Ammeter

### LCD



Digital Display 7 segment characters, 4½ digits, character height: 10 mm

Analog Display 25 segment bar graph

### Reference Conditions

Ambient Temperature +23° C ±1° C

### Electrical Safety

Safety Class II (totally insulated) in accordance with IEC 61010-1/EN 61010-1/VDE 0411-1

Overvoltage Category 600 V CAT III

Contamination Level 2

Nominal Insulation Voltage 600 V<sub>eff</sub>

### Maximum Allowable Voltage

Current Measurement 600 V AC<sub>eff</sub> or DC between non-insulated conductor and ground

Voltage Measurement 600 V AC<sub>eff</sub> or DC between input terminals, or between live conductor and local ground

### Ambient Conditions

Operating Temp. 0° C ... +50° C

Storage Temp. -20° C ... +60° C (without batteries)

Temperature Coefficient ±0.1% of display value per °C

Relative Humidity max. 80% at max. 31° C with linear decline to 50% at max. 40° C, no condensation allowed

Elevation to 2000 m

Deployment indoors

### Power Supply

Battery 1 ea. 9 V alkaline-manganese block battery per IEC 6LR61

Service Life approx. 12 hours

### Mechanical Design

Protection IP 40

Clip Opening 55 mm

Cable Diameter 1 ea. 50 mm dia. cable or 2 ea. 30 mm dia. cable

Dimensions W x H x D: 98 mm x 251 mm x 52 mm

Weight 500 gr. with batteries

### Data Interface

Data Transmission optocoupler via RS 232 to PC

Baud Rate 9600 baud

### Applicable Regulations and Standards

IEC 61010-1/EN 61010-1/ VDE 0411-1	Safety requirements for electrical equipment for measurement, control and laboratory use
IEC 61010-2-032/ EN 61010-2-032/ VDE 0411-2-032	Special requirements for clip-on ammeters
EN 50081-1	Electromagnetic compatibility (EMC) Generic standard for interference emission
EN 50082-1	Electromagnetic compatibility (EMC) Generic standard for interference immunity

### Standard Equipment

- clip-on ammeter
- carrying pouch
- measurement cables with test probe
- battery
- operating instructions

### Order Information

Description	Type	Article Number
Digital Clip-on Ammeter	METRACLIP® 80	M312C

Please refer to our Measuring Instruments and Testers Catalog for additional information concerning accessories.

Printed in Germany • Subject to change without notice

GOSSEN-METRAWATT GMBH  
 Thomas-Mann-Str. 16-20  
 90471 Nuremberg, Germany  
 Phone +49 911 8602-0  
 Fax +49 911 8602-669  
 e-mail: info@gmc-instruments.com  
 http://www.gmc-instruments.com

GOSSEN  
 METRAWATT  
 CAMILLE BAUER