Specification
CM87
Clamp meters



All specified accuracies are at 23°C ± 5°C, <70% RH for 1 year.
Temperature Coefficient: 0.1 x (specified accuracy) per °C. (0°C to 18°C, 28°C to 50°C).

All accuracies below are expressed as ± (percentage of reading + digits)

DC Voltage

Range	Resolution	Input impedance	Accuracy
6.6V	0.001V	10MΩ	0.5% + 2
66V	0.01V	9.1MΩ	
660V	0.1V		
1000V	1V		

Overload Protection: 1000V DC or 750V AC rms

AC Voltage (True RMS)

Range	Resolution	Input impedance	Accuracy (50Hz to 500Hz)
6.6V	0.001V	10MΩ	1.5% + 8
66V	0.01V	9.1MΩ	
660V	0.1V		
750V	1V		

True rms AC voltage accuracy is specified from 5% of range to 100% of range.
Crest factor: ≤ 3
Frequency measurement accuracy (50Hz to 1kHz): 0.1% + 5
Minimum input voltage: >500 dgts
Overload Protection: 1000V DC or 750V AC rms

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Resistance

Range	Resolution	Open circuit voltage	Accuracy
660Ω	0.1Ω	-3.2V dc	1.0% + 5
6.6kΩ	0.001kΩ	-1.1V dc	
66kΩ	0.01kΩ		
660kΩ	0.1kΩ		
6.6MΩ	0.001MΩ		2.0% + 5
66MΩ	0.01MΩ		3.5% + 5

Overload Protection: 600V DC or AC rms

Capacitance

Range	Resolution	Accuracy
6.6nF	0.001nF	3.0% + 30
66nF	0.01nF	3.0% + 10
660nF	0.1nF	3.0% + 30
6.6µF	0.001µF	3.0% + 10
66µF	0.01µF	
660µF	0.1µF	
6.6mF	0.001mF	5.0% + 10

Overload Protection: 600V DC or AC rms

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AC Current (True RMS)

Range	Resolution	Accuracy	
		50Hz to 60Hz	60Hz to 400Hz
660A	0.1A	2.0% + 10	3.0% + 10
1500A	1A	2.5% + 10 (≤1000A)	3.5% + 10 (≤1000A)
		5.0% + 10 (>1000A)	

True rms AC current accuracy is specified from 5% of range to 100% of range.
Crest factor: ≤ 3
Frequency measurement accuracy (50Hz to 1kHz): 0.1% + 5
Minimum input current: >500 dgts
Overload Protection: 1500A AC rms

DC Current

Range	Resolution	Accuracy
660A	0.1A	2.0% + 5
2000A	1A	3.0% + 5 (≤1000A) 5.0% + 5 (>1000A)

Overload Protection: 2000A DC for 60 seconds maximum

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Frequency

Range	Resolution	Accuracy
66Hz	0.01Hz	0.1% + 5
660Hz	0.1Hz	
6.6kHz	0.001kHz	
66kHz	0.01kHz	
660kHz	0.1kHz	
1MHz	0.001MHz	

Sensitivity (10Hz to 1MHz): >3.5V AC rms
Minimum input frequency: 10Hz
Minimum pulse width: >1µs
Duty cycle limits: >30% and <70%
Overload protection: 600V DC or AC rms

Duty Cycle

Range	Frequency range	Resolution	Pulse width	Accuracy (5V logic)
5% to 95%	40Hz to 20kHz	0.1%	> 10µs	2.0% + 10

Overload protection: 600V DC or AC rms

Temperature (Type K Thermocouple)

Range	Resolution	Accuracy
0°C to 400°C	1°C	1.0% + 2
-20°C to 0°C, 400°C to 1000°C		2.0% + 3
32°F to 750°F	1°F	1.0% + 4
-4°F to 32°F, 750°F to 1832°F		2.0% + 6

Overload protection: 60V DC or 30V AC rms

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Continuity

Range	Resolution	Response time	Open circuit voltage	Audible indication
660Ω	0.1Ω	100ms approx.	-3.2V dc	<30Ω

Overload protection: 600V DC or AC rms

Diode Test

Range	Resolution	Test current	Open circuit voltage	Audible indication	Accuracy
2V	1 mV	0.8mA	3.2V dc typical	<0.25V	1.5% + 5

Overload protection: 600V DC or AC rms

GENERAL

Display: Liquid crystal display
Digital, 6600 counts, updates 2.8/sec
Polarity: automatic, positive implied, '-' for negative polarity indication
Overrange: (OL) or (-OL) is displayed
Bar-graph, 66 segments, updates 28/sec

Power: 9V, PP3 carbon-zinc battery (IEC 6F22, NEDA 1604D)
Battery life: 75 hours typical with carbon zinc

Low battery indication: symbol displayed
Auto power off: after 30 minutes
Jaw opening capability: conductor diameter 57mm
bus bar 70 x 18mm

Dimensions: 281 x 108 x 53mm
Weight: 585g approx. including battery

Includes: carrying case, set of TL16 test leads, Type K thermocouple, 9V PP3 battery (installed), instructions

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ENVIRONMENTAL

Temperature & humidity: (Operating):0°C to 50°C <70% R.H.
(Storage): -20°C to 60°C< 80% R.H.
Altitude: up to 2000m
Pollution degree 2, indoor use

SAFETY

Conforms to BS EN 61010-1, BS EN 61010-2-032, CAT IV 600V, CAT III 1000V
Class II, Double insulation

EMC

Conforms to BS EN 61326-1

SPECIFICATION FOR TL16 TEST LEADS

Maximum voltage: 1000V AC/DC
Maximum current: 10A continuous
Connector: 4mm banana plug with fixed shroud

Environmental

Temperature (Operating & Storage): 0°C to 40°C
Altitude: up to 2000m
Pollution degree 2

Safety

Conforms to BS EN 61010-031,
CAT IV 600V, CAT III 1000V, 10A (Probe tip caps fitted)
CAT II 1000V, 10A (Probe tip caps removed)
Class II, Double insulation

Check out what else you can get from Martindale:

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- Continuity Testers
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- Digital Multimeters
- Labels
- Microwave Leakage Detectors
- Motor Maintenance Equipment
- Multifunction Testers
- Non-trip Loop Testers
- Pat Testers & Accessories
- Phase Rotation Testers
- Proving Units
- Socket Testers
- Thermometers & Probes
- Test Leads
- Voltage Indicators
- Specialist Metrohm Testers (4 & 5kV)
- Specialist Drummond Testers

Martindale Electric Company Limited
Metrohm House, Penfold Trading Estate, Imperial Way, Watford WD24 4YY, UK
Tel: +44(0)1923 441717 Fax: +44 (0)1923 446900
E-mail: sales@martindale-electric.co.uk
Website: www.martindale-electric.co.uk

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