DIGITAL CLAMP METER

PCE-CM 7

- **display range: 6000 counts**
- **measurement range selection: automatic and manual**
- **min, max and hold function**
- **2-inch LC display**
- **integrated LED torch**
- **automatic power-off**

The digital clamp meter is a multifunctional meter for the precise measurement of alternating and direct voltage as well as alternating and direct current that can be measured without direct contact to the line. The digital clamp meter is suitable for measuring resistance, temperature, diodes, continuity, frequencies and capacitance and is particularly useful for diagnosing electrical and electronic components.

For maximum measurement accuracy, the digital clamp meter supports True RMS for non-sinusoidal waveforms and a Low Impedance (LoZ) function to reduce interference. The non-contact voltage test enables reliable detection of voltages in cables and sockets.

The 2-inch LC display ensures clear readability, even under poor lighting conditions and an integrated LED torch makes it easier to work in dark environments. The device also offers automatic and manual measurement range selection, allowing it to be flexibly adapted to different measuring situations. The device also has a practical zero key which enables accurate measurement of low currents, especially when measuring direct current (DC) and ensures the compensation of deviations of the output value. Other functions include overload protection, data hold, min, max and an automatic power-off after 15 minutes to conserve battery life.

Specification

Direct voltage DC	
Measurement range up to	0,1 ... 600 mV
Resolution	0,1 mV
Accuracy	±(0.5 % of Rd +5 digits)
Overload	1000 V
Direct voltage DC	
Measurement range up to	600 mV ... 6 V
Resolution	0,001 V
Accuracy	±(0.5 % of Rd +5 digits)
Direct voltage DC	
Measurement range up to	6 ... 60 V
Resolution	0,01 V
Accuracy	±(0.5 % of Rd +5 digits)
Direct voltage DC	
Measurement range up to	60 ... 600 V
Resolution	0,1 V
Accuracy	±(0.5 % of Rd +5 digits)
Direct voltage DC	
Measurement range up to	600 ... 1000 V
Resolution	1 V
Accuracy	±(0.8 % of Rd +5 digits)
Direct current DC	
Measurement range up to	0,1 ... 60 A
Resolution	0,01 A
Accuracy	±(2.5 % of Rd +8 digits)
Direct current DC	
Measurement range up to	60 ... 600 A
Resolution	0,01 A
Accuracy	±(2.5 % of Rd +8 digits)
Direct current DC	
Measurement range up to	600 ... 1000 A
Resolution	0,1 A
Accuracy	±(2.5 % of Rd +8 digits)
Capacity	
Measurement range up to	1 ... 10 nF
Resolution	0,001 nF
Accuracy	±(4.0 % of Rd +5 digits)
Capacity	

General technical data	
Measuring functions	MIN, MAX, HOLD
Display type	LCD
Display size	2 Inch
Standard(s)	IEC61010-1, IEC 61010-2-032, IEC 61010-2-033
Maximum cable diameter	35 mm
Automatic power-off	15 min
Automatic power-off can be deactivated	Yes
Safety standard	CAT III 1000V, CAT IV 600 V
max. input impedance	10 M Ω
Measurement range selection	Automatic, Manual
Diode test	Test current: approx. 1.5 mA Test voltage: approx. 1 V Overload protection: 250 V
Display range	6000 counts
Protection class (device)	IP20
(Rechargeable) battery	3 x 1,5 V AAA battery , Alkali-manganese
Capacity	1200 mAh
Operating conditions	0 ... 40 °C , 0 ... 80 % RH
Storage conditions	-10 ... 60 °C , 0 ... 70 % RH
Dimensions (L x W x H)	240 x 85 x 45 mm
Weight	327 g

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Measurement range up to	10 ... 100 nF
Resolution	0,001 nF
Accuracy	±(4.0 % of Rd +5 digits)
Capacity	
Measurement range up to	100 ... 1000 nF
Resolution	0,01 nF
Accuracy	±(4.0 % of Rd +5 digits)
Capacity	
Measurement range up to	1000 nF ... 10 µF
Resolution	0,1 nF
Accuracy	±(4.0 % of Rd +5 digits)
Capacity	
Measurement range up to	10 ... 100 µF
Resolution	0,001 µF
Accuracy	±(4.0 % of Rd +5 digits)
Capacity	
Measurement range up to	100 ... 1000 µF
Resolution	0,01 µF
Accuracy	±(4.0 % of Rd +5 digits)
Capacity	
Measurement range up to	1000 µF ... 10 mF
Resolution	0,1 µF
Accuracy	±(4.0 % of Rd +5 digits)
Capacity	
Measurement range up to	10 ... 100 mF
Resolution	0,001 mF
Accuracy	±(5.0 % of Rd +10 digits)
AC voltage	
Measurement range up to	0,1 ... 600 mV
Resolution	0,1 mV
Accuracy	±(0.8 % of Rd +5 digits)
Overload	750 V
Frequency range	40 ... 1000 Hz
AC voltage	
Measurement range up to	600 mV ... 6 V
Resolution	0,1 mV
Accuracy	±(0.8 % of Rd +5 digits)
Frequency range	40 ... 1000 Hz
AC voltage	

Measurement range up to	6 ... 60 V
Resolution	0,001 V
Accuracy	±(0.8 % of Rd +5 digits)
Frequency range	40 ... 1000 Hz
AC voltage	
Measurement range up to	60 ... 600 V
Resolution	0,01 V
Accuracy	±(0.8 % of Rd +5 digits)
Frequency range	40 ... 1000 Hz
AC voltage	
Measurement range up to	600 ... 750 V
Resolution	0,1 V
Accuracy	±(1.0 % of Rd +5 digits)
Frequency range	40 ... 1000 Hz
Alternating current AC	
Measurement range up to	0,1 ... 60 A
Resolution	0,01 A
Accuracy	±(2,5 % of Rd +8 digits) / VFD: ±(5.0 % of Rd +10 digits) / INRUSH: ±(5.0 % of Rd +10 digits)
Frequency range	40 ... 400 Hz
Alternating current AC	
Measurement range up to	60 ... 600 A
Resolution	0,1 A
Accuracy	±(2,5 % of Rd +8 digits) / VFD: ±(5.0 % of Rd +10 digits) / INRUSH: ±(5.0 % of Rd +10 digits)
Frequency range	40 ... 400 Hz
Alternating current AC	
Measurement range up to	600 ... 1000 A
Resolution	1 A
Accuracy	±(2,5 % of Rd +8 digits) / VFD: ±(5.0 % of Rd +10 digits) / INRUSH: ±(5.0 % of Rd +10 digits)
Frequency range	40 ... 60 Hz
Resistance	
Measurement range up to	0,1 ... 600 Ω
Resolution	1 Ω
Accuracy	±(1.0 % of Rd +5 digits)
Resistance	
Measurement range up to	600 Ω ... 6 kΩ
Resolution	1 Ω
Accuracy	±(1.0 % of Rd +5 digits)
Resistance	

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Measurement range up to	6 ... 60 kΩ
Resolution	0,001 kΩ
Accuracy	±(1.0 % of Rd +5 digits)
Resistance	
Measurement range up to	60 ... 600 kΩ
Resolution	0,01 kΩ
Accuracy	±(1.0 % of Rd +5 digits)
Resistance	
Measurement range up to	600 kΩ ... 6 M Ω
Resolution	0,1 kΩ
Accuracy	±(1.0 % of Rd +5 digits)
Resistance	
Measurement range up to	6 ... 60 M Ω
Resolution	0,001 M Ω
Accuracy	±(1.0 % of Rd +5 digits)
Frequency	
Measurement range up to	0 ... 10 Hz
Resolution	0,001 Hz
Accuracy	±(1.0 % of Rd +3 digits)
Frequency	
Measurement range up to	10 ... 100 Hz
Resolution	0,001 Hz
Accuracy	±(1.0 % of Rd +3 digits)
Frequency	
Measurement range up to	100 ... 1000 Hz
Resolution	0,01 Hz
Accuracy	±(1.0 % of Rd +3 digits)
Frequency	
Measurement range up to	1000 Hz ... 10 kHz
Resolution	0,1 Hz
Accuracy	±(1.0 % of Rd +3 digits)
Frequency	
Measurement range up to	10 ... 100 kHz
Resolution	0,001 kHz
Accuracy	±(1.0 % of Rd +3 digits)
Frequency	
Measurement range up to	100 ... 1000 kHz
Resolution	0,01 kHz
Accuracy	±(1,0 % v.Mw. +3 Digits)

Frequency	
Measurement range up to	1000 kHz ... 10 MHz
Resolution	0,1 kHz
Accuracy	±(3,0 % v.Mw. +3 Digits)
Temperature	
Measurement range up to	-20 ... 0 °C
Resolution	0,1 °C
Accuracy	±3 °C
Temperature	
Measurement range up to	0 ... 400 °C
Resolution	0,1 °C
Accuracy	±1.0 % or ±2 °C
Temperature	
Measurement range up to	400 ... 1000 °C
Resolution	0,1 °C
Accuracy	±2.0 %
Temperature	
Measurement range up to	-4 ... +32 °F
Resolution	1 °F
Accuracy	±6 °F
Temperature	
Measurement range up to	32 ... 752 °F
Resolution	1 °F
Accuracy	±1.0 % or ±4 °F
Temperature	
Measurement range up to	752 ... 1832 °F
Resolution	1 °F
Accuracy	±2.0 %

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