

FEATURES

- 10,000 count digital display 50 segment analogue bar graph
- Active backlit with large white LED display
- Bluetooth connection
- Auto store up to 1000 memories
- Data logging up to 9,999 records
- Torch lightening on trigger push
- Auto Ohms/Continuity/Diode selection
- AC current via flexible current probe
- Power and power factor measurement
- Total harmonics distortion and harmonics 1 to 25
- Phase rotation indication
- 100K Ohms resistance capability
- Smart data hold, peak hold, min/max hold
- Inrush current
- DCA auto-zeroing key
- High frequency rejection
- Up to 40mm dia. (1000MCM) conductor
- 1m drop proof
- Deluxe carrying case
- Hand guard & stream line designed
- Convenient battery door

RS PRO Clamp Meter-158B Multifunction Clamp Meter

RS Stock No.: 162-4458



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

RS PRO 158B Bluetooth Power Clamp Meter 1000A (AC/DC), with Temperature Function

The RS PRO 158B power clamp meter with Bluetooth connectivity is a highly reliable device ideal for measuring a range of electrical parameters including AC Current, AC Voltage, Capacitance, Continuity, DC Current, DC Voltage, Diode, Frequency and Resistance. This true RMS clamp meter from RS PRO provides advanced power features, phase rotation, total harmonics distortion, which enables fully professional power measurement application with excellent performance. The RS PRO 158B features Bluetooth connectivity for streaming data on mobile devices, providing easy data acquisition and analysis.

General Specifications

Product Range	Clamp Meter
Model Number	158B
Clamp Meter Type	Multifunction Clamp
Functions Measured	AC Current, AC Voltage, Capacitance, Continuity, DC Current, DC Voltage, Diode, Frequency, Harmonics, Power, Power Factor, Resistance, Temperature, THD
Display Type	Bar Graphs, LED
Sampling Rate	3 times/sec
Overload Protection	Yes
True RMS	Yes
Non-Contact Voltage Detector	Yes
Data Hold	Yes
Auto power OFF	Yes
Temperature coefficient	0.2 x (Specified accuracy) / °C, < 18°C, > 28°C .
Communication Interface	Bluetooth
Applications	Commercial/ Residential electricians

Measurement

Parameter	Range	Accuracy	Resolution
Absolute Current (AC)	1kA ac	±1.5% + 5 digit	0.1A
Absolute Current (DC)	1kA dc	±(1.5% rdg + 5dgts)	0.1 µA
Absolute Voltage (AC)	1000V ac	±(1% rdg + 5dgts)	0.1V
Absolute Voltage (DC)	1000V dc	±(0.7% rdg + 2dgts)	0.1V
Active Power	999.9 kW	A,error x V,reading+ V,error x A,reading	
Capacitance	3999 µF	± (1.9% + 8d)	

Continuity Threshold	<30Ω Beep On. >100Ω Beep OFF		
Diode Test	0.40~ 0.80V	± 0.1V	
Frequency	999.9Hz	± (0.5% + 3d)	
Harmonics			
Inrush Current	999.9A	± (2.5% + 5d)	
Absolute Resistance	100kΩ	± (1.0% + 5d)	
Total Harmonic Distortion	99.9%	± (3.0% + 10d)	
Absolute Temperature	1000 °C	± (1% + 3°C)	
Power Factor	-1.00 ~ 0.00 ~1.00	±5d	

Electrical Specifications

Power Source	Battery
Battery Type	Alkaline, 1.5 V AAA
Battery Life	50 h
Safety Category Level and Voltage	CAT III, CAT IV, 600 V, 1000 V

Mechanical Specifications

Jaw Capacity (Busbars)	33mm
Maximum Conductor Size	40 Dia.mm
Dimensions	258 x 103 x 55mm
Width	103mm
Length	258mm
Height	55mm
Weight	600g

Operation Environment Specifications

Altitude	2000m (6562 ft)
Operating Temperature Range	0 °C~ 10 °C 10 ° C ~ 30 ° C (≅ 80% RH) 30 ° C ~ 40 ° C (≅ 75% RH) 40 ° C ~ 50 ° C (≅ 45%RH)
Storage Temperature Range	-10 to 50 °C 0 to 80% RH (batteries not fitted).

Approvals

Compliance/Certifications	IEC 61010-1: CAT.IV 600V, CAT.III 1000V.
Declarations	RoHS Certificate of Compliance

Accessories Includes

Item Name	Item Description	Qty
Battery (installed)		1
Test Leads	set (1 x Black, 1 x Red)	2
User Manual		1
Temperature Probe		1
Carrying case		1

Similar Products

Stock No.	RS# 123-1984	RS# 123-3222	RS#123-3229	RS# 123-3233
Model Number	RS330	ICM136R	ICM135R	ICMA7-4
Clamp Meter Type	AC/DC Clamp Meter	Multifunction Clamp	Multifunction Clamp	Multifunction Clamp
Clamping Diameter	Opening 0.9" (23mm) approx			
Functions Measured	AC Current, AC Voltage, Continuity, DC Voltage, Diode Test, Resistance	AC Current, AC Voltage, Continuity, DC Current, DC Voltage, Diode Test, Frequency, Resistance	AC Current, AC Voltage, Continuity, DC Voltage, Diode Test, Frequency, Resistance	AC Current, AC Voltage, Continuity, DC Voltage, Diode Test, Resistance
Display Type	LCD	LCD	LCD	
Sampling Rate		1.5 times/sec	1.5 times/sec	2.5 times/sec
Absolute Current (AC)	400A ac	600A ac	600A ac	200A ac
Absolute Current (DC)	600V dc	600A dc		
Absolute Voltage (AC)	600V ac	600V ac	600V ac	600V ac
Absolute Voltage (DC)	600V dc	600V dc	600V dc	600V dc
Continuity Threshold	Threshold <120Ω; Test current < 1mA			
Diode Test	Test current of 0.3mA typical; Open circuit voltage 1.5V DC typical.	Yes	Yes	Yes
Frequency Range			20Hz~400Hz	
Temperature coefficient			0.2× (spec. accuracy) / °C <18°C, >28°C	0.2 x (Specified accuracy) / °C, < 18°C, > 28°C

Specifications: (All at 23°C±5°C, ≤80% R.H.)

DC/AC Voltage

Function	Range	Accuracy
DCV	99.99V	± (0.7% + 2d)
	999.9V	
ACV	99.99V	± (1.0% + 5d)
	999.9V	50 ~ 500Hz
LPF ACV	99.99V	50 ~ 60Hz ± (1% + 5d)
	999.9V	>60 ~ 400Hz ± (5% + 5d)

Overload Protection: 1000Vrms

AC+DC Vrms Accuracy : same as ACV spec.+ DCV spec.

AC/DC Current

Function	Range	Accuracy
DCA	99.99A	± (1.5% + 0.2A)
	999.9A	± (1.5% + 5d)
ACA	0.10A ~ 99.99A	50 ~ 60Hz ± (1.5% + 5d)
	999.9A	>60 ~ 400Hz ± (2% + 5d)
LPF ACA	0.10A ~ 99.99A	50 ~ 60Hz ± (1.5% + 5d)
	999.9A	>60 ~ 400Hz ± (5% + 5d)

Overload Protection: 1000Arms

AC+DC Arms Accuracy : Same as ACA spec + DCA spec.

Peak Hold (Peak MAX / Peak MIN)

Function	Range	Accuracy
ACV	140.0V	± (3.0% + 15d)
	1400V	
ACA	140.0A	± (3.0% + 15d)
	1400A	

Frequency

Function	Range	Accuracy
Frequency	20.00 ~ 99.99Hz	± (0.5% + 3d)
	20.0 ~ 999.9Hz	
	0.020 ~ 9.999kHz	

Harmonic Distortion

Total Harmonic Distortion		
Function	Range	Accuracy
ACA/ACV	99.9%	± (3.0% + 10d)

Harmonic distortion measurement		
Harmonic order	Range	Accuracy
H01 ~ H12	99.9%	± (5% + 10d)
H13 ~ H25		± (10% + 10d)

Inrush Current

Function	Range	Accuracy
ACA	99.99A	± (2.5% + 0.2A)
	999.9A	± (2.5% + 5d)

Accuracy defined for :

Sine wave, $ACA \geq 10A_{rms}$, Freq. 50/60Hz

Integration time about 100m sec

Resistance & Continuity & Diode

Function	Range	Accuracy
Resistance	999.9 Ω	± (1.0% + 5d)
	9.999 k Ω	
	99.99 k Ω	
Continuity	999.9 Ω	± (1.0% + 5d)
Diode	0.40~ 0.80V	± 0.1V

Continuity check : <30 Ω Beep On.

>100 Ω Beep OFF.

Maximum open circuit voltage for diode: ± 1.8V

Capacitance

Function	Range	Accuracy
Capacitance	3.999 μ F	± (1.9% + 8d)
	39.99 μ F	
	399.9 μ F	
	3999 μ F	

Active Power (AC/DC)

Function	Range	Accuracy
ACW / DCW	9.999 kW**	A _{error} × V _{reading} + V _{error} × A _{reading}
	99.99 kW	
	999.9 kW	

Accuracy defined for :

ACW : Sine wave , ACV ≥ 10 Vrms, ACA ≥ 5 Arms

Freq. 50~60Hz, PF=1.00

Power Factor

Function	Range	Accuracy
PF	-1.00 ~ 0.00 ~1.00	±5d

Flex AC Current


Function	Range	Accuracy
ACA	300.0A / 3000A	± (1% + 5d) (50~500Hz)
LPF ACA	300.0A / 3000A	± (1% + 5d) (50~60Hz) ± (5% + 5d) (61~400Hz)
Peak	420.0A / 4200A	± (3% + 80d) (50~500Hz)
Inrush	300.0A / 3000A	± (2% + 10d) (50/60Hz)
Frequency	99.99Hz / 999.9Hz	± (0.5% + 3d) (<500Hz)
THD	99.9%	± (5% + 10d)
Harm H01~H12	99.9%	± (5% + 10d)

The accuracy of sFlex-T is not included.

Temperature

Function	Range	Accuracy
°C	-50 °C ~ 399.9 °C	± (1% + 3°C)
	400 °C ~ 1000 °C	
°F	-58 °F ~ 751.9 °F	± (1% + 6°F)
	752 °F ~ 1832 °F	

General

Sampling Rate:	3 times/sec
Overload Indication:	"OL" or "-OL"
Low Battery Indication:	
Auto Power Off:	Approx. 15 minutes after last operation
Operating Temperature:	0 °C~ 10 °C 10 °C ~ 30 °C (≤80% RH) 30 °C ~ 40 °C (≤75% RH) 40 °C ~ 50 °C (≤45%RH)
Storage Temperature:	-10 to 50 °C 0 to 80% RH (batteries not fitted).
Temperature Coefficient:	0.2 x (Specified accuracy) / °C, < 18 °C, > 28 °C .
Safety:	IEC 61010-1: CAT.IV 600V, CAT.III 1000V.
Maximum Conduct Size:	40mm dia.
Power Requirement:	1.5V AAA * 6 Alkaline batteries
Battery Life:	ALKALINE 50 hours (without Backlight).
Size:	103mm(W) x 258mm(L) x 55mm(D)
Weight:	Approx. 600g (with battery)
Accessories:	Battery (installed), Test Leads, User Manual, Temperature Probe, Carrying case.