

Digital Multimeter Protek 608



■ Features

- 4 4/5 Digit, Dual Display
- 50,000 Count
- True RMS for AC or AC+DC
- Accuracy : 0.05%(DC Volt)
- Auto Calibration
- RS232C PC Interface

■ Special Functions

- New Style of Bar Graph Display Based on Binary Bit Expression Method
- \pm Peak Detection Mode for High Speed Signal Capture
- Easy Determination on with GO / NG Mode



■ Specifications

DC mV & V

Function	Range	Accuracy	Resolution	Protection
DC mV	500.00mV	0.05% + 5d	>1G Ω	MAX. 250V AC or DC (5K Ω PTC)
	2500.0mV			
DCV	5.0000V	0.05% + 5d	About 10.5 M Ω	MAX. 1000V DC or 750 V AC (10M Ω)
	50.000V			
	500.00V			
	1000.0V			

AC mV & V

Function	Range	Accuracy for Each Frequency Band	Resolution	Protection
AC mV	500.00mV	50 ~ 500Hz Up ~ 1KHz	0.75% + 20d for < 400mV 1% for > 400mV	250V AC or DC (500 Ω PTC)
		Up ~ 5KHz	1.5% for > 50mV	
AC V	5.0000V	50 ~ 500Hz Up ~ 1KHz	1% for AC V Level more than 10% of Full Scale Reading	2% for AC V > 10% of Full Scale
AC V	50.000V	50 ~ 500Hz Up ~ 1KHz	1% for AC V Level more than 10% of Full Scale Reading	2% for AC V > 10% of Full Scale
AC V	500.00V	50 ~ 500Hz Up ~ 1KHz	1% for AC V Level more than 10% of Full Scale Reading	2% for AC V > 10% of Full Scale
AC V	750.0V	50 ~ 500Hz Up ~ 1KHz	1% for AC V Level more than 10% of Full Scale Reading	2% for AC V > 10% of Full Scale

AC + DC mV & V

Function	Range	Accuracy for Each Frequency Band	Resolution	Protection
AC + DC mV	500.00mV	50 ~ 500Hz Up ~ 1KHz	1.6% + 50d for < 300mV 2% for > 300mV	250V AC or DC (500 Ω PTC)
		Up ~ 5KHz	2.5% for > 50mV	
AC + DC V	5.0000V	50 ~ 500Hz Up ~ 1KHz	2.5% for AC + DC V Level more than 10% of Full Scale Reading	3.5% for AC + DC V > 10% of Full Scale
AC + DC V	50.000V	50 ~ 500Hz Up ~ 1KHz	2.5% for AC + DC V Level more than 10% of Full Scale Reading	3.5% for AC + DC V > 10% of Full Scale
AC + DC V	500.00V	50 ~ 500Hz Up ~ 1KHz	2.5% for AC + DC V Level more than 10% of Full Scale Reading	3.5% for AC + DC V > 10% of Full Scale
AC + DC V	750.0V	50 ~ 500Hz Up ~ 1KHz	2.5% for AC + DC V Level more than 10% of Full Scale Reading	3.5% for AC + DC V > 10% of Full Scale

DC Current

Function	Shunt	Range	Accuracy	Protection
DC μ A	100 Ω	5000.0 μ A	0.2% + 5d	1A / 600V Fast Fuse & 22V M.O. Varistor
DC mA	1 Ω	500.00mA	0.5% + 5d	15A / 600V Fast Fuse
DC A	10M Ω	10.000A	0.5% + 5d	15A / 600V Fast Fuse

AC current

Function	Shunt	Frequency	Accuracy	Protection
AC μ A	5000.0 μ A	50Hz ~ 1KHz	0.75% + 20d for < 40000 Count	1A / 600V Fast Fuse & 22V M.O. Varistor
AC mA	500.00 mA		1% for > 40000 Count	15A / 600V Fast Fuse
AC A	10.000A		1% for > 40000 Count	15A / 600V Fast Fuse

AC + DC Current

Function	Shunt	Frequency	Accuracy	Protection
AC + DC μ A	5000.0 μ A	DC ~ 1KHz	1.5% + 50d for < 30000 Count	1A / 600V Fast Fuse & 22V M.O. Varistor
AC + DC mA	500.00mA		2% for > 30000 Count	15A / 600V Fast Fuse
AC + DC A	10.000A		2% for > 30000 Count	15A / 600V Fast Fuse

Resistance

Range	Resolution	Accuracy	Open / Short	Protection
50.00 Ω	0.01 Ω	1.0% + 20d	2.5V / 1.7mA	250V AC or DC (500 Ω PTC)
5.0000K Ω	0.1 Ω		2.5V / 1.7mA	
50.000K Ω	1 Ω	0.2% + 5d	2.5V / 240 μ A	
500.00K Ω	10 Ω		2.5V / 25 μ A	
5.0000M Ω	100 Ω		2.5V / 2.5 μ A	
50.000M Ω	1K Ω		2.5V / 250nA	

LV ohm (Low Voltage OHM)

Range	Resolution	Accuracy	Open / Short	Protection
5.000 Ω	1 Ω	0.5% + 5d	0.25V / 170 μ A	250V AC or DC (500 Ω PTC)
50.00K Ω	10 Ω		0.25V / 24 μ A	
500.00K Ω	100 Ω	2.5% + 10d	0.25V / 2.5 μ A	
5.0000M Ω	1K Ω		0.25V / 250 μ A	
50.000M Ω	10K Ω		0.25V / 25nA	

nS

Range	Resolution	Accuracy	Open / Short	Protection
500.0 ns	0.1 ns	3.0% + 5d	2.5V / 25nA	250V AC or DC

Continuity

Range	Input	Response	Accuracy	Protection
5K Ω	Short	Buzz On	< 5 Ω	250V AC or DC (500 Ω PTC)
	Open	Buzz Off	> 15 Ω	
60K Ω	Short	Buzz On	< 50 Ω	
	Open	Buzz Off	> 100 Ω	
500K Ω	Short	Buzz On	< 500 Ω	
	Open	Buzz Off	> 1K Ω	
5M Ω	Short	Buzz On	< 5K Ω	
	Open	Buzz Off	> 10K Ω	

Zener Diode

Range	Accuracy	Test Current	Open Circuit V	Protection
15.000V	5% + 10d	1mA	15 ~ 22V	250V AC or DC (500 Ω PTC)

Capacitance

Range	Input	Response	Accuracy	Protection
5.000 nF	1pF	5% + 10d	1.1 sec.	250V AC or DC (500 Ω PTC)
50.00 nF	10 pF			
500.0 nF	100 pF	2% + 10d	Variable (1.1 ~ 10 sec.)	
5.000 μ F	1nF			
50.00 μ F	10 nF	2% + 5d	Variable (1.1 ~ 10 sec.)	
500.0 μ F	100 nF			
5.000 mF	1 μ F	3% + 10d	Variable (1.1 ~ 10 sec.)	

Frequency

Range	Resolution	Accuracy	Open / Short	Protection
50.00 Hz	0.01 Hz	0.01% + 5d	10M Ω // 1nF	500V AC or DC (1KV 1nF Capacitor Parallel with 10M 1/2W Resistor)
500.0 Hz	0.1 Hz			
50.000 KHz	1 Hz			
500.00 KHz	10 Hz			
5.0000 MHz	100 Hz			

Pulse Width

Range	Resolution	Accuracy	Input Impedance	Protection
200.00 ms	10 μ sec.	0.1% + 5d	10M Ω // 1nF	500V AC or DC

Duty Cycle

Range	Resolution	Accuracy	Pulse Width	Protection
100.00%	0.01%	0.1% + 5d	0.1ms ~ 200ms	500V AC or DC

Temperature

Range	Resolution	Range	Accuracy	Protection
$^{\circ}$ C	0.1 $^{\circ}$ C	-20 ~ 0 $^{\circ}$ C	\pm 3 $^{\circ}$ C	Max. 500V AC or DC for V Terminal, 1A 600V Fast Fuse for mA Terminal
		0 ~ 150 $^{\circ}$ C	\pm 2 $^{\circ}$ C	
		150 ~ 1200 $^{\circ}$ C	\pm 2 $^{\circ}$ C	
$^{\circ}$ F	0.1 $^{\circ}$ F	$^{\circ}$ F = 32 + (9 / 5 x $^{\circ}$ C)		
$^{\circ}$ K	0.1 $^{\circ}$ K	$^{\circ}$ K = $^{\circ}$ C + 273.1		

Peak + / - Detection

Function	Accuracy	Remark
DC mA	Less Than 10% for Peak with > 5ms of Duration and with > 10% of Full Scale of Each Range	
DC V		
DC μ A		
DC mA		
DC A		

Basic Accessory : Test Leads, User Manual, Gift Box, Holder, Software Win98 & WinNT RS232C Cable

Optional Accessory : Temp. Adaptor (TA90) Temp. Probe (TP35, 1 $^{\circ}$ Type)

Low Battery Detect : Battery Indicator on LCD Appears at Below 6 \pm 1V

Physical Size (H x W x D) : Main Unit (Std) : 203.5 x 94.0 x 43.2 mm With Holder : 216.5 x 104.5 x 68.0mm

Physical Weight : Main Unit (Std) : 417g (14.7oz) With Holder : 567g (1 lb 3.6oz)