

# GENERAL POLYTRONIC SYSTEMS LTD.

## GPS-176

Professional Digital Multimeter



IP67 dust and water proof

GPS-176 is professional digital multimeter which provides safe, reliable measurements with double molded plastic housing design and IP67 waterproof function. GPS-176 has the new 6,000 counts resolution and a 0.09% basic DC accuracy is now within reach for the customer.

The large LCD display, with analog bargraph and backlight, ensures that readings are easy to read under all circumstances.

### • Features

- 6,000 Counts
- Backlit LCD display
- 1000V input protection on all ranges
- REL mode/Data Hold/MAX/MIN recording mode
- Auto power off
- Wide capacitance range 1000 $\mu$ F

### • Safety Conformance

- EN61010-1 CAT IV 600V, CAT III 1000V
- 1000V input protection on all ranges
- 10A/1000V & 0.5A/1000V fuses
- protection on current ranges



EMC & LVD  
 EN: 61326  
 EN: 61010-1  
 EN: 61010-02-031



## GPS-176

### Professional Digital Multimeter

#### Specifications

Function	Range	Resolution	Accuracy	
DC Voltage	600mV	0.1mV	±(0.09% reading + 2 digits)	
	6V	0.001V		
	60V	0.01V		
	600V	0.1V		
	1000V	1V		
AC Voltage			50 to 60Hz	40Hz to 1KHz
	6V	0.001V	±(1.0% reading + 3 dgts)	
	60V	0.01V		
	600V	0.1V		
	1000V	1V	±(1.2% reading + 5 dgts)	±(2.5% reading + 5 dgts)
All AC voltage ranges are specified from 5% of range to 100% of range				
DC Current	600µA	0.1µA	±(1.0% reading + 3 digits)	
	6000µA	1µA		
	60mA	0.01mA		
	600mA	0.1mA		
	6A	0.001A	±(1.5% reading + 3 digits)	
	10A	0.01A		
	(20A: 30 sec max with reduced accuracy)			
AC Current			40Hz to 1kHz	
	600µA	0.1µA	±(1.5% reading + 3 digits)	
	6000µA	1µA		
	60mA	0.01mA		
	600mA	0.1mA		
	6A	0.001A	±(2.0% reading + 5 digits)	
	10A	0.01A		
(20A: 30 sec max with reduced accuracy)				
All AC current ranges are specified from 5% of range to 100% of range				

NOTE: Accuracy is stated at 65°F to 83°F (18°C to 28°C) and less than 75% RH.

Function	Range	Resolution	Accuracy	
Resistance	600Ω	0.1Ω	±(0.3% reading + 4 digits)	
	6kΩ	0.001kΩ		
	60kΩ	0.01kΩ		
	600kΩ	0.1kΩ		
	6MΩ	0.001MΩ		
	60MΩ	0.01MΩ		
	600MΩ	0.01MΩ		
Capacitance	60nF	0.01nF	±(3.5% reading + 4 digits)	
	600nF	0.1nF		
	6µF	0.001µF		
	60µF	0.01µF		
	600µF	0.1µF		
	1000µF	1µF		
	6000µF	10µF		
Frequency (electronic)	9.999Hz	0.001Hz	±(0.1% reading + 1 digit)	
	99.99Hz	0.01Hz		
	999.9Hz	0.1Hz		
	9.999kHz	0.001kHz		
	99.99kHz	0.01kHz		
	999.9kHz	0.1kHz		
	9.999MHz	0.001MHz		
	99.99MHz	0.01MHz		
	999.9MHz	0.1MHz		
	9.999GHz	0.001GHz		
	99.99GHz	0.01GHz		
999.9GHz	0.1GHz			
Frequency (electrical)	10.00-400Hz	0.01Hz	±(0.5% reading)	
	Sensitivity: 15Vrms			
Duty Cycle	0.1 to 99.9%	0.1%	±(1.2% reading + 2 digits)	
	Pulse width: 100µs - 100ms, Frequency: 5Hz to 150kHz			
Temp (type-K)	-50 to 1382°F	1°F	±(3.0% reading + 5°C / 9°F digits)	
	-45 to 750°C	1°C	(probe accuracy not included)	

Note: Accuracy specifications consist of two elements:

- (% reading) – This is the accuracy of the measurement circuit.
- (+ digits) – This is the accuracy of the analog to digital converter.

**Size(HxWxD):** 182mm x 82mm x 55mm

**Weight:** 360g

#### • Accessories:

Test leads, 9V battery, Type K temperature probe and gift box with carrying case.

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