



190 Series General Specifications & Accessories

ACCESSORIES

CO, Combustion & Combustibles
Refrigeration Leak Detectors

Digital Manometers
Temperature Instruments

IAQ: Air Flow/Humidity

Digital Multimeters & Clamp-on Meters

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GENERAL SPECIFICATIONS

Weight:	530g
Operating Temp:	0°C to 45°C (-32°F to 113°F)
Storage Temp:	-20°C to 60°C (-40°F to 140°F)
Relative Humidity:	0% to 80%: (0°C to 35°C/32°F to 95°F) 0% to 70%: (45°C to 55°C/95°F to 131°F)
Temp Coefficient:	0.1x (Specified Accuracy) per °C for temperature <18°C to >28°C
Power Supply	9 Volt Alkaline Battery

STANDARD ACCESSORIES

A190	Protective Boot
A085	UL Listed Silicone Test Lead Set with Alligator Clips (Screw On)
A104	0.5 Amp/600V UL Ceramic Fuse for 100 series DMMs (2 each)
A110	10 Amp/600V UL Ceramic Fuse for 100 series DMMs (2 each)

OPTIONAL ACCESSORIES

A100	Carrying case	
A191	RS232 cable & software for optically isolated IR port	
A251	AC Clamp-On Accessory for DMMs	0-400 Amps
A254	Low Current AC/DC Adapter for DMMs	10 Amp range, 0.001 resolution 60 Amp range, 0.01 resolution
A256	AC/DC Clamp-on Accessory for DMMs	0.1 A resolution
A296	AC/DC Clamp-On Accessory for DMMs	0-1,000 Amps
A301	Temperature Adapter with GK11M and battery, 0.1°C or °F resolution	
A620	500psi Pressure/Vacuum Adapter for DMMs	

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To learn about the entire line of TPI products visit:

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190 Series 50,000 Count True RMS

Three Models to Choose From

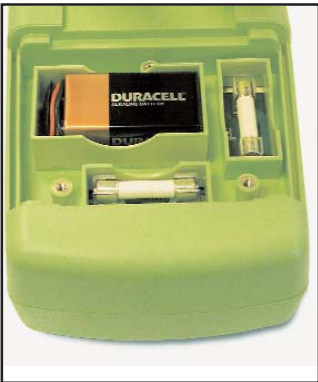
190
Electrical
Industrial
HVAC

192
Electronic

194
Electrical
Industrial
600V CAT IV



tilt stand on all 190 series DMMs



separate battery & fuse compartment



All 190 Series DMMs come with protective boot & rubber (CA) test leads.

Features

- **Large 50,000 count display** increases resolution and improves accuracy (1.7" x 2.75", 43mm x 70mm)
- **Triple Display** shows more than one reading simultaneously
- **51 Segment Analog Bar Graph** to catch fast AC fluctuations
- **Back Light** (LED Type) allows viewing in any light condition
- **Auto Range** automatically selects the best range for the measurement
- **Separate battery and fuse compartment** for easy replacement
- **True RMS** needed to accurately measure nonsinusoidal AC voltage and current waveforms found on controls and circuits
- **Increased safety** with Silicone rubber 1,000V CAT III, 600V CAT IV, 10A test leads (CE & cUL listed)
- **Capacitance** measures the value of capacitors

- **Auto Power Off** DMM will auto after approximately 15 minute battery life. Disable Auto Pow REC button and turn the mete
- **Diode Test** displays approxim
- **Continuity and buzzer** to chec

ADDITIONAL FEATURES 192 & 194 Only

- **Time Stamp Logging** logs up (min/max/avg) with a time sta
- **Pulse Width** measures the du
- **Duty Cycle** displays the total "c
- **Inductance** measures the val coils
- **Conductance** measures the ab conduct electricity
- **Temperature** for use in HVAC electronic applications
- **dB Readout** displays a voltag for impedance

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The Value Leader™

190 Series Functions

optically isolated RS232 interface port

TRIPLE DISPLAY: shows more than one reading simultaneously

REL%: relative; display a measured value as a percentage.

EDIT:

HOLD: data hold

RESISTANCE, CONTINUITY & BUZZER

ADP: adapter position on range selector switch to directly use optional accessories

- A251
- A254
- A296
- A301
- A312
- A620

Please refer to back for accessory descriptions

large 50,000 count display

RANGE: automatically sets the best range for measurement

REC: record minimum, maximum & average reading

BACKLIGHT: LED type; allows viewing in any light condition

COMP: compare

DIODE TEST: displays approximate forward bias voltage

Actual size 4.5”w x 8.0”h x 2.0”d

190 Series Features & Specifications

Features (for all models)				
Basic DC accuracy:	0.05%			
Compare:	Compares stored value with measured value for matching components			
Data Hold:	Enables the reading on the display to be frozen. The two hold system holds the previous reading when a new			
Relative:	Display a measured value as a percentage of a stored value. Useful for component testing			
Record:	Record Minimum, Maximum, and average reading.			
Auto Range:	Automatically selects the best range for measurement			
Continuity & Buzzer:	Check for opens and shorts			
RS232:	Optically isolated software optional			
Safety:	Designed to meet cULus 3111 and IEC1010			
LCD:	Large 50,000 count display			
Triple Display:	Shows more than one reading simultaneously			
Bar Graph:	51 Segments Analog Bar Graph to catch fast AC fluctuations			
Back Light:	Allows viewing in any light condition			
True RMS:	Needed to accurately measure nonsinusoidal AC voltage and current waveforms found on controls and circuit			
Test Leads:	Silicone rubber 1,000 CAT III, 600V CAT IV, 10A			
Auto Power Off:	DMM will automatically power down after approximately 15 minutes of inactivity to extend battery life. Disab			
Diode Test:	Displays approximate forward bias voltage			

Specification		190 (resolution)	192 (resolution)	(resol
AC Volts	Max. reading	750	750	7
	Frequency	(45Hz to 20kHz)	(45Hz to 20kHz)	45Hz to
DC millivolts	Max. reading	500	500	5
	Best resolution	(0.001mV)	(0.001mV)	(0.0
DC Volts	Max. reading	1,000	1,000	1,
	Best resolution	(0.0001V)	(0.0001V)	(0.0
DC Microamps	Max. reading	5,000	5,000	5,
	Best resolution	(0.01uA)	(0.01uA)	(0.0
DC Milliamps	Max. reading	500	500	5
	Best resolution	(0.001mA)	(0.001mA)	(0.0
DC Amps	Max. reading	10	10	(0.0
	Best resolution	(0.0001A)	(0.0001A)	(0.0
AC Microamps	Max. reading	5,000	5,000	5,
	Best resolution	(0.01uA)	(0.01uA)	(0.0
AC Milliamps	Max. reading	500	500	5
	Best resolution	(0.001mA)	(0.001mA)	(0.0
AC Amps	Max. reading	10	10	(0.0
	Best resolution	(0.0001A)	(0.0001A)	(0.0
Ohms	Max. reading	500	500	5
	Best resolution	(0.01 ohm)	(0.01 ohm)	(0.0
Kohms	Max. reading	500	500	5
	Best resolution	(0.0001 Kohm)	(0.0001 Kohm)	(0.000
Mohms	Max. reading	50	50	(0.000
	Best resolution	(0.0001 Mohm)	(0.0001 Mohm)	(0.000
Frequency Hz	Max. reading	500	500	5
	Best resolution	(0.001Hz)	(0.001Hz)	(0.0
Frequency KHz	Max. reading	500	500	5
	Best resolution	(0.0001kHz)	(0.0001kHz)	(0.00
Inductance mH	Max. reading	no	300	3
	Best resolution		(0.01)	0
Temperature (maximum)			2,462°F	2,4
Resolution (maximum)			0.1°F	0
Capacitance	Max. reading	20,000	100	20
	Best resolution	(0.001)	(0.001)	(0.
Micro farads			50nS	50
Conductance			0.1 to 99.9%	0.1 to
Duty Cycle			500mS, 1S	500r
Pulse Width			60dB	6
dB			600V 500mA	1000V
Fuse		600V 500mA	600V 10A	1000
Agency Approval: CEIC61010		CAT II 1,000V	CAT II 1,000V	CAT II
cULus3111		CAT III 600V pending	CAT III 600V pending	CAT

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