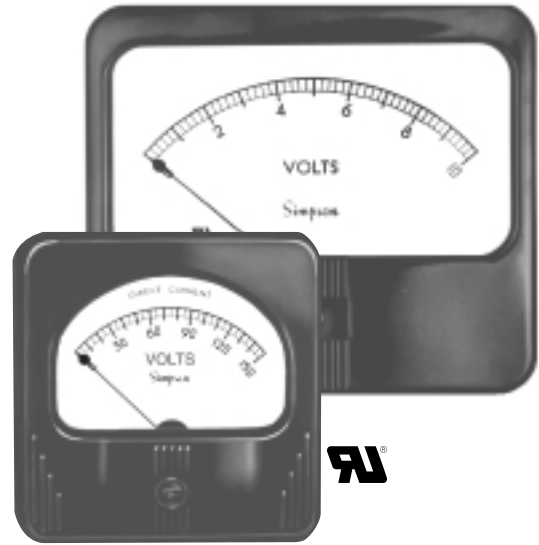




# AC Voltage Rectangular Style

- Phenolic Cases and Glass Windows
- UL Recognized
- Three Popular Sizes: 2-1/2", 3-1/2", 4-1/2"
- Calibration Not Affected When Mounted on Steel

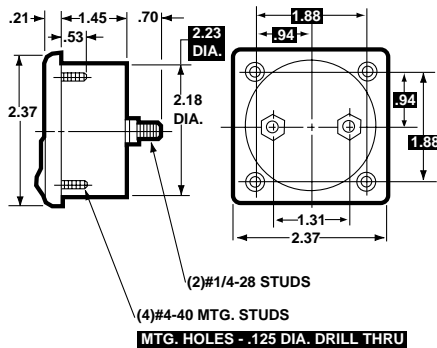
For unsurpassed stability and quality performance, look to Simpson's rectangular style meters. The rectangular style offers a popular look with sharp, beveled edges and glass windows for easy viewing. AC units have either iron-vane or rectifier type movements. The magnetically damped iron-vane movement allows the meter to be mounted in steel panels with no effect to its calibration. All ranges are calibrated to 60 Hz. Iron-vane type voltage meters have frequency ranges of 25-125 Hz (for  $\pm 1\%$  deviation from value at 60 Hz). Calibration to 800 Hz available on special order (All rectifier types have 25 Hz to 10 KHz range). Three different standard sizes of 2-1/2", 3-1/2", and 4-1/2" are available to measure varying AC voltage ranges. This style meter is ideal for many other electrical functions. See the "Function Reference Table."



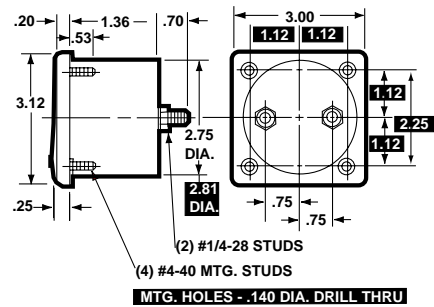
Model Number	Size	Meter Movement
157	2-1/2"	Iron-Vane
147	2-1/2"	Annular-Rectifier
57	3-1/2"	Iron-Vane
47	3-1/2"	Annular-Rectifier
59	4-1/2"	Iron-Vane
49	4-1/2"	Annular-Rectifier

## Dimensions and Compatibility

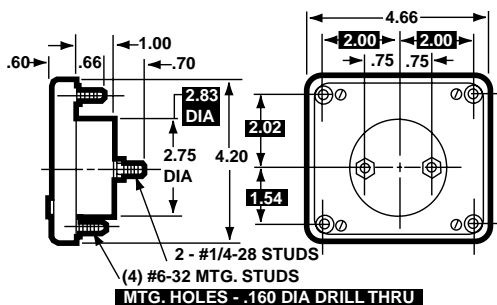
### 2-1/2"-Model 147 & 157



### 3-1/2"-Model 47 & 57



### 4-1/2"-Model 49 & 59



## Compatibility Reference Table

Manufacturer	Size/Model		
	2-1/2"	3-1/2"	4-1/2"
Beede		15	16/458
Hoyt		598	648/684
Modutec PB Series	2PB*	3PB*	4PB
Triplet S Series	227-T	327- <sup>+</sup> T	420
Yokogawa Big Look	250-2 OPT.	250-3 OPT.	250-4 OPT. 1

\*Modutec Meters use a three-stud mount.

## Specifications

<b>Accuracy:</b>	±2% full scale (F.S.) (iron-vane); ±3% F.S. (rectifier)
<b>Movement:</b>	Models 55, 155: Iron-vane, magnetically damped Models 45, 145: Rectifier type, self-shielding
<b>Suspension:</b>	Pivot and jewel
<b>Tracking:</b>	±3%
<b>Shielding:</b>	Calibration is unaffected by magnetic panel mounting.
<b>Response Time:</b>	1.5 seconds maximum
<b>Overload (1 sec.):</b>	10 times F.S.
<b>Overload (Continuous):</b>	1.5 times F.S.
<b>Repeatability:</b>	2%
<b>Dial:</b>	Sharp clear scale. Each dial arc is calibrated to track the specific type of movement used.

<b>Case:</b>	High density black phenolic.
<b>Resistance:</b>	±15%
<b>Operating Temperature:</b>	-4°F to +149°F (-20°C to +65°C)
<b>Pointer:</b>	Spade pointer, with black matte finish
<b>Scale Length:</b>	Model 45: 2.5" (63.5mm) Model 55: 2.3" (58.4mm) Model 145: 1.8" (45.7mm) Model 155: 1.6" (40.6mm)
<b>Net Weight:</b>	Model 45: 8oz (0.20kg) Models 55 & 155: 5oz (0.14kg) Model 145: 7oz (0.20kg)

## Ordering Information

### AC Voltmeters Rectifier Type, Self-Shielding

Range	Approx. Impedance (ohms) @ 60Hz	Model/Size and Catalog Number		
		2-1/2" Model 147	3-1/2" Model 47	4-1/2" Model 49
0-1	2000 ohms per volt	< >	08120	08300
0-3		< >	08130	08310
0-5		< >	< >	08320
0-10		< >	< >	08330
0-15		< >	< >	08340
0-50		< >	< >	08350
0-100		< >	08180	08360
0-150		< >	08190	08370
0-300		< >	< >	08371

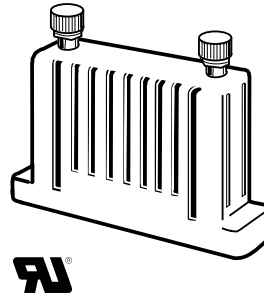
### AC Voltmeters Iron-Vane Type Movement

Range	Approx. Impedance (ohms) @ 60Hz	Model/Size and Catalog Number		
		2-1/2" Model 157	3-1/2" Model 57	4-1/2" Model 59
0-1.5	3	< >	< >	08710
0-3	12	< >	08540	08720
0-5	33	09390	08550	08730
0-10	133	09400	08566	08740
0-15	300	09420	08580	08750
0-25	833	09440	08599	08760
0-50	3,333	09450	08610	08770
0-100	16,166	09460	08620	08780
0-150	25,000	09470	08630	08790
0-250	41,166	09490	08650	08800
0-300	50,000	09500	08660	08810
0-500	83,333	09520†	08680†	08820†
0-750	125,000	< >	08690†	08830†
0-1000	166,666	< >	08700†	08840†

† External multipliers. Model 183 are furnished on AC meters having a range of 500 volts or higher. All others have self-contained multipliers. < > Available on special order.

## Accessories

### Model 183 Multiplier



The Model 183 external multiplier enables an iron-vane type voltage meter to monitor up to 1000 AC volts. An external multiplier is used with a 150 AC voltage meter that is scaled proportionally to your measurement range. Simpson's AC meters having a range of 500 volts or higher are furnished with the Model 183. Simpson's external multipliers are available for immediate delivery from your local distributor. Other intermediate ranges are available on special order.

### Ordering Information

#### AC Volts 166 Ohms/Volt

Range	Approx. Impedance (Ohms) @ 60 Hz	Volt Drop	Meter Volt Drop	Catalog Number
0-500	58,333	350	150	08562
0-600	75,000	450	150	08563
0-750	100,000	600	150	08564
0-1000	141,666	850	150	08565

## Function Reference Table

For your convenience, the table below lists Rectangular models for other electrical monitoring functions with page number reference.

Function	Section	Page
AC Current	E	19
DC Current	E	59
DC Voltage	E	79
Watts	E	111