

# Simpson "Wide-Vue" Panel Meters

INSTRUMENTS THAT STAY ACCURATE

SPECIFICATIONS



Modern styling with durable, open face plastic cover for wide-angle readability and protection of meter face. DC meters have self-shielded meter movement (calibration not affected by stray magnetic fields or magnetic mounting). AC meters have iron-vane type movement. AC Milliammeters and Ammeters (except 0-10 amps) are calibrated for 25-800 cps; AC Ammeters, 0-10 amps, and Voltmeters are calibrated for use on 25-125 cps. Wattmeters calibrated for either magnetic or non-magnetic panels and frequency range of 25-125 cps. For other specified frequencies up to 800 cps, add \$1.65 to price.

Simpson Model 1212 (4 1/2") or 1253 (3 1/2") Bezels—For behind-the-panel mounting of "Wide-Vue" Meters, Net Each... \$1.50

Size	Model	Accuracy, Full Scale	Scale Lgth.	Mtg. Hole	4 Mtg. Studs on
1 1/2"	1212 1214	±2% ±3%*	1.5"	1.5"	1.32" centers #4-40
2 1/2"	1227 1247 1257	±2% ±3%* ±2%	2.5"	2.17"	1.88" centers #4-40
3 1/2"	1327 1337 1347 1357	±2% ±2% ±3%* ±2%	3.14"	2.73" dia.	2.24" centers #4-40
4 1/2"	1329 1339 1349 1359 1379	±2% ±2% ±3%* ±2% ±2%	3.93"	2.75" dia.	4" x 3.56" centers #0-32

\*At 25° C and 60 cycle sine wave.

## DC PANEL METERS—MODELS 1212, 1227, 1327 AND 1329 DC VOLTMETERS—SELF-SHIELDED METER MOVEMENT (1000 OHMS/VOLT EXCEPT AS NOTED)

MODEL 1212—1 1/2"				MODEL 1227—2 1/2"				MODEL 1327—3 1/2"				MODEL 1329—4 1/2"			
Range Volts	Net Each, Lots of			Range Volts	Net Each, Lots of			Range Volts	Net Each, Lots of			Range Volts	Net Each, Lots of		
	1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49
0-5	\$12.75	\$11.47	\$10.83	0-5	\$13.80	\$12.42	\$11.73	0-5	\$14.52	\$12.82	\$12.11	0-5	\$15.75	\$14.17	\$13.38
0-8	—	—	—	0-8	—	—	—	0-8	14.25	12.82	12.11	0-8	15.75	14.17	13.38
0-10	12.75	11.47	10.83	0-10	13.80	12.42	11.73	0-10	14.25	12.82	12.11	0-10	15.75	14.17	13.38
0-15	12.75	11.47	10.83	0-15	13.80	12.42	11.73	0-15	14.25	12.82	12.11	0-15	15.75	14.17	13.38
0-25	12.75	11.47	10.83	0-25	13.80	12.42	11.73	0-25	14.25	12.82	12.11	0-25	15.75	14.17	13.38
0-30	—	—	—	0-30	—	—	—	0-30	14.25	12.82	12.11	0-30	15.75	14.17	13.38
0-50	12.75	11.47	10.83	0-50	13.80	12.42	11.73	0-50	14.25	12.82	12.11	0-50	15.75	14.17	13.38
0-100	12.75	11.47	10.83	0-100	13.80	12.42	11.73	0-100	14.25	12.82	12.11	0-100	15.75	14.17	13.38
0-150	12.75	11.47	10.83	0-150	13.80	12.42	11.73	0-150	14.25	12.82	12.11	0-150	15.75	14.17	13.38
0-200	—	—	—	0-200	—	—	—	0-200	14.25	12.82	12.11	0-200	15.75	14.17	13.38
0-250	—	—	—	0-250	—	—	—	0-250	14.25	12.82	12.11	0-250	15.75	14.17	13.38
0-300	—	—	—	0-300	—	—	—	0-300	14.25	12.82	12.11	0-300	15.75	14.17	13.38
0-300*	12.75	11.47	10.83	0-300*	—	—	—	0-300*	—	—	—	0-300*	—	—	—
0-500†	16.05	14.44	13.64	0-500*	14.25	12.82	12.11	0-500*	15.00	13.50	12.75	0-500*	16.20	14.58	13.77
0-750*	—	—	—	0-750†	17.55	15.79	14.91	0-750*	15.00	13.50	12.75	0-750*	16.20	14.58	13.77
0-1000*	—	—	—	0-1000†	17.85	16.06	15.17	0-1000†	18.60	16.74	15.81	0-1000†	19.80	17.82	16.83

\*2000 ohms/volt. †External multiplier furnished; all others self-contained.

## DC AMMETERS—SELF-SHIELDED METER MOVEMENT

Self-contained types are: 1 1/2" through 10 amps; 2 1/2", 3 1/2" and 4 1/2" through 50 amps. All others require external shunts.

MODEL 1212—1 1/2"				MODEL 1227—2 1/2"				MODEL 1327—3 1/2"				MODEL 1329—4 1/2"			
Range Amps	Net Each, Lots of			Range Amps	Net Each, Lots of			Range Amps	Net Each, Lots of			Range Amps	Net Each, Lots of		
	1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49
0-1	\$12.75	\$11.47	\$10.83	0-1	\$13.05	\$11.74	\$11.09	0-1	\$13.65	\$12.28	\$11.60	0-1	\$15.00	\$13.50	\$12.75
0-1.5	—	—	—	0-1.5	13.05	11.74	11.09	0-1.5	13.65	12.28	11.60	0-1.5	15.00	13.50	12.75
0-2	12.75	11.47	10.83	0-2	13.05	11.74	11.09	0-2	13.65	12.28	11.60	0-2	15.00	13.50	12.75
0-3	12.75	11.47	10.83	0-3	13.05	11.74	11.09	0-3	13.65	12.28	11.60	0-3	15.00	13.50	12.75
0-5	12.75	11.47	10.83	0-5	13.05	11.74	11.09	0-5	13.65	12.28	11.60	0-5	15.00	13.50	12.75
0-10	12.75	11.47	10.83	0-10	13.05	11.74	11.09	0-10	13.65	12.28	11.60	0-10	15.00	13.50	12.75
0-15	12.75	11.47	10.83	0-15	13.05	11.74	11.09	0-15	13.65	12.28	11.60	0-15	15.00	13.50	12.75
0-25	12.75	11.47	10.83	0-25	13.05	11.74	11.09	0-25	13.65	12.28	11.60	0-25	15.00	13.50	12.75
0-30	—	—	—	0-30	—	—	—	0-30	13.65	12.28	11.60	0-30	15.00	13.50	12.75
0-50	12.75	11.47	10.83	0-50	13.05	11.74	11.09	0-50	13.65	12.28	11.60	0-50	15.00	13.50	12.75
0-100	—	—	—	0-100	13.05	11.74	11.09	0-100	13.65	12.28	11.60	0-100	15.00	13.50	12.75
0-150	—	—	—	0-150	13.05	11.74	11.09	0-150	13.65	12.28	11.60	0-150	15.00	13.50	12.75
0-200	—	—	—	0-200	13.05	11.74	11.09	0-200	13.65	12.28	11.60	0-200	15.00	13.50	12.75
0-300	—	—	—	0-300	13.05	11.74	11.09	0-300	13.65	12.28	11.60	0-300	15.00	13.50	12.75
0-500	—	—	—	0-500	—	—	—	0-500	13.65	12.28	11.60	0-500	15.00	13.50	12.75
15-0-15	—	—	—	15-0-15	—	—	—	15-0-15	14.55	13.09	12.36	15-0-15	—	—	—
30-0-30	—	—	—	30-0-30	—	—	—	30-0-30	14.55	13.09	12.36	30-0-30	—	—	—
50-0-50	—	—	—	50-0-50	—	—	—	50-0-50	14.55	13.09	12.36	50-0-50	—	—	—

Self contained. Voltage drop, 150 mv or less.

MODEL 1212—1 1/2"				MODEL 1227—2 1/2"				MODEL 1327—3 1/2"				MODEL 1329—4 1/2"			
Range Ma	Net Each, Lots of			Range Ma	Net Each, Lots of			Range Ma	Net Each, Lots of			Range Ma	Net Each, Lots of		
	1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49
0-1	\$12.30	\$11.07	\$10.45	0-1	\$12.90	\$11.61	\$10.96	0-1	\$13.50	\$12.15	\$11.47	0-1	\$14.25	\$12.82	\$12.11
0-3	—	—	—	0-3	12.90	11.61	10.96	0-3	13.50	12.15	11.47	0-3	14.25	12.82	12.11
0-5	12.30	11.07	10.45	0-5	12.90	11.61	10.96	0-5	13.50	12.15	11.47	0-5	14.25	12.82	12.11
0-10	12.30	11.07	10.45	0-10	12.90	11.61	10.96	0-10	13.50	12.15	11.47	0-10	14.25	12.82	12.11
0-15	12.30	11.07	10.45	0-15	12.90	11.61	10.96	0-15	13.50	12.15	11.47	0-15	14.25	12.82	12.11
0-20	—	—	—	0-20	12.90	11.61	10.96	0-20	13.50	12.15	11.47	0-20	14.25	12.82	12.11
0-25	12.75	11.47	10.83	0-25	13.20	11.88	11.22	0-25	13.80	12.42	11.73	0-25	15.00	13.50	12.75
0-50	12.75	11.47	10.83	0-50	13.20	11.88	11.22	0-50	13.80	12.42	11.73	0-50	15.00	13.50	12.75
0-100	12.75	11.47	10.83	0-100	13.20	11.88	11.22	0-100	13.80	12.42	11.73	0-100	15.00	13.50	12.75
0-150	12.75	11.47	10.83	0-150	13.20	11.88	11.22	0-150	13.80	12.42	11.73	0-150	15.00	13.50	12.75
0-200	12.75	11.47	10.83	0-200	13.20	11.88	11.22	0-200	13.80	12.42	11.73	0-200	15.00	13.50	12.75
0-250	12.75	11.47	10.83	0-250	13.20	11.88	11.22	0-250	13.80	12.42	11.73	0-250	15.00	13.50	12.75
0-300	12.75	11.47	10.83	0-300	13.20	11.88	11.22	0-300	13.80	12.42	11.73	0-300	15.00	13.50	12.75
0-500	12.75	11.47	10.83	0-500	13.20	11.88	11.22	0-500	13.80	12.42	11.73	0-500	15.00	13.50	12.75
0-500	12.90	11.61	10.96	0-1000	13.20	11.88	11.22	0-1000	13.80	12.42	11.73	0-1000	15.00	13.50	12.75

MODEL 1212—1 1/2"				MODEL 1227—2 1/2"				MODEL 1327—3 1/2"				MODEL 1329—4 1/2"			
Range µa	Net Each, Lots of			Range µa	Net Each, Lots of			Range µa	Net Each, Lots of			Range µa	Net Each, Lots of		
	1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49
0-15	—	—	—	0-15	\$19.20	\$17.28	\$16.32	0-15	\$22.50	\$20.25	\$19.12	0-15	\$24.60	\$22.14	\$20.81
0-25	—	—	—	0-25	19.20	17.28	16.32	0-25	20.10	18.09	17.08	0-25	22.20	19.98	18.87
0-50	\$16.20	\$14.58	\$13.77	0-50	16.65	14.95	14.15	0-50	17.10	15.39	14.53	0-50	18.45	16.60	15.68
0-100	14.40	12.96	12.24	0-100	15.00	13.50	12.75	0-100	15.60	14.04	13.26	0-100	17.00	15.66	14.79
0-200	13.05	11.74	11.09	0-200	13.65	12.28	11.60	0-200	14.25	12.82	12.11	0-200	15.75	14.17	13.38
0-500	12.80	11.52	1												

INSTRUMENTS THAT STAY ACCURATE

### DC PANEL METERS—MODELS 1212, 1227, 1327 AND 1329 (CONT'D) DC MILLIVOLTMETERS—SELF-SHIELDED METER MOVEMENT (10 OHMS RESISTANCE)

MODEL 1212—1½"				MODEL 1227—2½"				MODEL 1327—3½"				MODEL 1329—4½"			
Range Mv	Net Each, Lots of			Range Mv	Net Each, Lots of			Range Mv	Net Each, Lots of			Range Mv	Net Each, Lots of		
	1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49
0-50	\$12.75	\$11.47	\$10.83	0-50	\$13.05	\$11.74	\$11.09	0-50	\$13.65	\$12.28	\$11.60	0-50	\$15.00	\$13.50	\$12.75
50-0-50	—	—	—	50-0-50	—	—	—	50-0-50	13.65	12.28	11.60	50-0-50	15.00	13.50	12.75

### DC GALVANOMETERS—SELF-SHIELDED METER MOVEMENT

Range	Sensitivity µa	Model 1212—1½"			Model 1227—2½"			Range	Sensitivity µa	Model 1327—3½"			Model 1329—4½"		
		1-9	10-24	25-49	1-9	10-24	25-49			1-9	10-24	25-49	1-9	10-24	25-49
50-0-50	500-0-500	\$12.45	\$11.20	\$10.58	\$12.90	\$11.61	\$10.96	50-0-50	500-0-500	\$13.65	\$12.28	\$11.60	\$14.40	\$12.96	\$12.24
50-0-50	75-0-75	13.20	11.88	11.22	13.95	12.55	11.85	50-0-50	75-0-75	15.15	13.63	12.87	16.65	14.98	14.15

### AC PANEL METERS—MODELS 1257, 1357, AND 1359 AC VOLTMETERS—IRON VANE TYPE MOVEMENT (SELF-CONTAINED EXCEPT 0-500 V.)

MODEL 1257—2½"				MODEL 1357—3½"				MODEL 1359—4½"			
Range Volts	Net Each, Lots of			Range Volts	Net Each, Lots of			Range Volts	Net Each, Lots of		
	1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49
0-5	—	—	—	0-5	\$12.60	\$11.34	\$10.71	0-5	\$14.40	\$12.96	\$12.24
0-10 or 0-15	\$12.30	\$11.07	\$10.45	0-10 or 0-15	12.60	11.34	10.71	0-10 or 0-15	14.40	12.96	12.24
0-25 or 0-50	12.45	11.20	10.58	0-25 or 0-50	13.05	11.74	11.09	0-25 or 0-50	14.40	12.96	12.24
0-100	12.75	11.47	10.83	0-100	13.65	12.28	11.60	0-100	14.40	12.96	12.24
0-150	13.05	11.74	11.09	0-150	13.95	12.55	11.85	0-150	15.00	13.50	12.75
0-250 or 0-300	13.05	11.74	11.09	0-250 or 0-300	13.95	12.55	11.85	0-250 or 0-300	15.00	13.50	12.75
0-500	16.65	14.98	14.15	0-500	17.85	16.06	15.17	0-500	19.05	17.14	16.19

### AC AMMETERS—IRON VANE TYPE MOVEMENT

The following meters are self contained: 2½" through 50 amps, 3½" and 4½" through 75 amps. Higher range AC ammeters are 5 amp meters to be used with external current transformer.

MODEL 1257—2½"					MODEL 1357—3½"					MODEL 1359—4½"				
Range Amps	Approx. Resis., Ohms	Net Each, Lots of			Range Amps	Approx. Resis., Ohms	Net Each, Lots of			Range Amps	Approx. Resis., Ohms	Net Each, Lots of		
		1-9	10-24	25-49			1-9	10-24	25-49			1-9	10-24	25-49
0-1	.287	\$11.70	\$10.53	\$9.94	0-1	.287	\$12.45	\$11.20	\$10.58	0-1	.287	\$14.55	\$13.09	\$12.36
0-1.5	.185	11.70	10.53	9.94	0-1.5	.185	12.45	11.20	10.58	0-1.5	.185	14.55	13.09	12.36
0-2	.115	—	—	—	0-2	.115	12.45	11.20	10.58	0-2	.115	14.55	13.09	12.36
0-3	.027	11.70	10.53	9.94	0-3	.027	12.45	11.20	10.58	0-3	.027	14.55	13.09	12.36
0-5	.012	11.70	10.53	9.94	0-5	.012	12.45	11.20	10.58	0-5	.012	14.55	13.09	12.36
0-10	.0031	11.70	10.53	9.94	0-10	.0031	12.45	11.20	10.58	0-10	.0031	14.55	13.09	12.36
0-15	.0022	11.70	10.53	9.94	0-15	.0022	12.45	11.20	10.58	0-15	.0022	14.55	13.09	12.36
0-25	.0003	12.30	11.07	10.45	0-25	.0003	12.90	11.61	10.96	0-25	.0003	15.00	13.50	12.75
0-30	.0003	12.30	11.07	10.45	0-30	.0003	12.90	11.61	10.96	0-30	.0003	15.00	13.50	12.75
0-50	.0006	12.30	11.07	10.45	0-50	.0006	12.90	11.61	10.96	0-50	.0006	15.00	13.50	12.75
0-75	.012	—	—	—	0-75	.012	13.95	12.55	11.85	0-75	.012	16.05	14.95	13.65
0-100	.012	11.70	10.53	9.94	0-100	.012	12.45	11.20	10.58	0-100	.012	14.55	13.09	12.36
0-150	.012	11.70	10.53	9.94	0-150	.012	12.45	11.20	10.58	0-150	.012	14.55	13.09	12.36
0-200	.012	11.70	10.53	9.94	0-200	.012	12.45	11.20	10.58	0-200	.012	14.55	13.09	12.36
0-300	.012	11.70	10.53	9.94	0-300	.012	12.45	11.20	10.58	0-300	.012	14.55	13.09	12.36

### AC MILLIAMMETERS—IRON VANE TYPE MOVEMENT

Ranges: 0-10, 0-50, 0-100, 0-250, 0-500 ma; specify.

MODEL 1257—2½"				MODEL 1357—3½"				MODEL 1359—4½"			
Range, Ma (Specify)	Net Each, Lots of			Range, Ma (Specify)	Net Each, Lots of			Range, Ma (Specify)	Net Each, Lots of		
	1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49
Any range	\$11.70	\$10.53	\$9.94	Any range	\$12.45	\$11.20	\$10.58	Any range	\$14.55	\$13.09	\$12.36

### RECTIFIER TYPE AC VOLTMETERS—SELF-SHIELDED METER MOVEMENT 2,000 OHMS/VOLT RESISTANCE

MODEL 1214—1½"				MODEL 1247—2½"				MODEL 1347—3½"				MODEL 1349—4½"			
Range Volts	Net Each, Lots of			Range Volts	Net Each, Lots of			Range Volts	Net Each, Lots of			Range Volts	Net Each, Lots of		
	1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49		1-9	10-24	25-49
0-5	\$17.70	\$15.93	\$15.04	0-5	\$16.50	\$14.85	\$14.02	0-5	\$18.30	\$16.47	\$15.55	0-5	\$20.10	\$18.09	\$17.08
0-10	17.70	15.93	15.04	0-10	16.50	14.85	14.02	0-10	18.30	16.47	15.55	0-10	20.10	18.09	17.08
0-15	—	—	—	0-15	—	—	—	0-15	18.30	16.47	15.55	0-15	20.10	18.09	17.08
0-50	—	—	—	0-50	—	—	—	0-50	18.30	16.47	15.55	0-50	20.10	18.09	17.08
0-150	17.70	15.93	15.04	0-150	16.50	14.85	14.02	0-150	18.30	16.47	15.55	0-150	20.10	18.09	17.08
0-300	17.70	15.93	15.04	0-300	16.50	14.85	14.02	0-300	18.30	16.47	15.55	0-300	20.10	18.09	17.08

### VOLUME LEVEL INDICATORS—SELF-SHIELDED METER MOVEMENT

Range	Model 1214—1½"			Model 1247—2½"			Model 1347—3½"			Model 1349—4½"					
	1-9	10-24	25-49	1-9	10-24	25-49	1-9	10-24	25-49	1-9	10-24	25-49			
General Purpose DB*	—	—	—	\$18.35	\$16.51	\$15.59	—	—	—	\$19.60	\$17.64	\$16.66	\$20.25	\$18.22	\$17.21
A Scale VU†	\$19.80	\$17.82	\$16.83	21.90	19.71	18.61	—	—	—	22.50	20.25	19.12	23.70	21.33	20.14
B Scale VU†	—	—	—	—	—	—	—	—	—	22.50	20.25	19.12	23.70	21.33	20.14

\*Zero power level, 6 mw 500 ohm line; 5,000 ohm range. †Reference level, 1 mw 600-ohm line; meet all electrical and ballistic specifications by Bell Labs and ASA as required by broadcasting, communication and sound engineers.

### RF AMMETERS—SELF-SHIELDED METER MOVEMENT

Range	Approx. Resis., Ohms	Model 1337—3½"			Model 1339—4½"		
		1-9	10-24	25-49	1-9	10-24	25-49
0-1	.343	\$15.90	\$14.31	\$13.52	\$18.15	\$16.34	\$15.43
0-1.5	.200	15.90	14.31	13.52	18.15	16.34	15.43
0-2	.120	15.90	14.31	13.52	18.15	16.34	15.43
0-2.5	.10	15.90	14.31	13.52	18.15	16.34	15.43
0-3	.08	15.90	14.31	13.52	18.15	16.34	15.43
0-5	.045	15.90	14.31	13.52	18.15	16.34	15.43
0-8	.031	15.90	14.31	13.52	18.15	16.34	15.43
0-10	.023	15.90	14.31	13.52	18.15	16.34	15.43

### RF MILLIAMMETERS

0-500	.63	\$18.75	\$16.88	\$15.94	\$21.15	\$19.04	\$17.98
-------	-----	---------	---------	---------	---------	---------	---------

### WATTMETERS—MODEL 1379—4½" DYNAMOMETER TYPE SINGLE PHASE

Range Watts	Range Volts	Max. Amps	Net Each, Lots of		
			1-9	10-24	25-49
0-75	150	1.0	\$34.92	\$31.43	\$29.68
0-150	150	2.0	34.92	31.43	29.68
0-300	150	4.0	34.92	31.43	29.68
0-750	150	10.0	34.92	31.43	29.68
0-600	300	4.0	37.47	33.72	31.85
0-1500	300	10.0	37.47	33.72	31.85
0-3000	300	20.0	37.47	33.72	31.85

### COMPENSATED TYPE

0-10	300	.175	\$46.75	\$42.08	\$39.74
0-20	300	.400	46.75	42.08	39.74
0-30	300	.650	46.75	42.08	39.74

RANGES LISTED WITHOUT PRICES (—) ARE AVAILABLE ON SPECIAL ORDER ONLY.

# Simpson

# Accurate Panel Meters

INSTRUMENTS THAT STAY ACCURATE

### RECTANGULAR AND ROUND PANEL METERS

#### ACCURACY AND SCALE LENGTH

DC meters or AC iron vane type meters, ±2% full scale except mirrored 1150-1, ±1% full scale; db and rectifier types, ±3% full scale at 25° C, 60 cycle sine wave; VU meters per ASA specs.

Size	Models	Scale	Size	Models	Scale
2 1/2"	125, 127, 135, 137, 145, 147	1.8"	3 1/2"	55, 57, 75, 77	2.3"
2 1/4"	155, 157, 175, 177	1.6"	4 1/2"	29, 39, 49, 142	3.3"
3 1/2"	25, 27, 35, 37, 45, 47	2.5"	4 1/4"	59, 79	3.5"
			6"	1150, 1150-1	4.6"

#### CALIBRATION AND DIMENSIONS

**DC meters**—External magnet type movement calibrated for non-magnetic panel. When meters for use on steel panels, state panel thickness and add \$1.65 to price shown.

**AC meters**: All have iron vane type movement. AC Milliammeters and Ammeters, except 0-10 amps, are calibrated for use on 25-800 cps; 0-10 AC Ammeters and all AC Voltmeters calibrated for use on 25-125 cps. Wattmeters have dynamometer movement for magnetic or non-magnetic panels; calibrated for 25-125 cps. AC Voltmeters available for other frequencies; specify and add \$1.65 to price.

**Note**—Special dials are available for substitution at \$1.65 extra; write for availability before ordering.

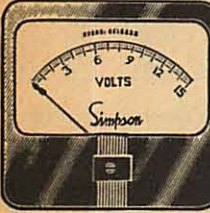
Model	Fig.	Size, Inches
127, 137, 147, 157	A	2.37 sq.; body, 2.17 dia. x 1.45 d.
177	A	2.37 sq.; body, 2.17 dia. x 2.02 d.
125, 135, 145, 155	B	Flange, 2.69 dia.; body, 2.17 dia. x 1.39 d.
175	B	Flange, 2.69 dia.; body, 2.17 dia. x 1.98 d.
27, 37, 47	C	3 w. x 3.12 h.; body, 2.75 dia. x 1.36 d.
57	C	3 w. x 3.12 h.; body, 2.75 dia. x 1.45 d.
25, 35, 45	D	Flange, 3.5 dia.; body, 2.75 dia. x 1.31 d.
55	D	Flange, 3.5 dia.; body, 2.75 dia. x 1.41 d.
75	D	Flange, 3.5 dia.; body, 2.75 dia. x 2.06 d.
29, 39, 49	E	4.66 w. x 4.2 h.; body, 2.75 dia. x 1 d.
59	E	4.66 w. x 4.2 h.; body, 2.75 dia. x 1.09 d.
79	E	4.66 w. x 4.2 h.; body, 2.75 dia. x 1.68 d.
142	E	4.25 w. x 3.94 h.; body, 3.25 dia. x 1 d.
1150	F	6.75 w. x 4.63 h.; body, 3 dia. x 1 d.



A



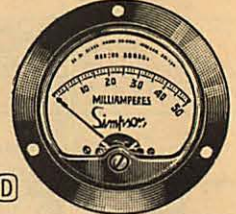
C



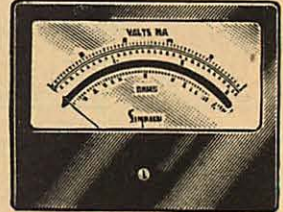
E



B



D



F

### DC VOLTMETERS—EXTERNAL MAGNET METER MOVEMENT EXCEPT 6", 1,000 OHMS/VOLT

**MODELS 125, 127—2 1/2"**

Range Volts	1-9	10-24	25-49
0-1.5, -3	\$13.05	\$11.74	\$11.09
0-5, -8	13.05	11.74	11.09
0-10†, -15	13.05	11.74	11.09
0-25, -30	13.05	11.74	11.09
0-50†, -100	13.05	11.74	11.09
0-150†	13.05	11.74	11.09
0-200	13.05	11.74	11.09
0-250	13.05	11.74	11.09
0-300†	13.05	11.74	11.09
0-500*	13.80	12.42	11.73
0-750*	16.65	14.98	14.15
0-1000*	16.95	15.25	14.40
0-1500*			
0-2000*	17.55	15.79	14.91
0-2500*			
0-3000* <sup>†</sup>	18.15	16.33	15.42
0-4000*			
0-5000*			

**MODELS 25, 27—3 1/2"**

Range Volts	1-9	10-24	25-49
0-1.5, -3	\$13.50	\$12.15	\$11.47
0-5, -8	13.50	12.15	11.47
0-10†, -15	13.50	12.15	11.47
0-25, -30	13.50	12.15	11.47
0-50†, -100	13.50	12.15	11.47
0-150†	13.50	12.15	11.47
0-200	13.50	12.15	11.47
0-250	13.50	12.15	11.47
0-300†	13.50	12.15	11.47
0-500*†	14.10	12.69	11.98
0-750*	14.10	12.69	11.98
0-1000*	17.55	15.79	14.91
0-1500*	17.85	16.06	15.17
0-2000*	18.15	16.33	15.42
0-2500*	18.45	16.60	15.68
0-3000* <sup>†</sup>	18.75	16.87	15.93
0-4000*	19.05	17.14	16.19
0-5000*	19.35	17.41	16.44

**MODEL 29—4 1/2"**

Range Volts	1-9	10-24	25-49
0-1.5, -3	\$14.85	\$13.36	\$12.62
0-5, -8	14.85	13.36	12.62
0-10, -15	14.85	13.36	12.62
0-25, -30	14.85	13.36	12.62
0-50, -100	14.85	13.36	12.62
0-150	14.85	13.36	12.62
0-200	14.85	13.36	12.62
0-250	14.85	13.36	12.62
0-300	14.85	13.36	12.62
0-500*	15.30	13.77	13.00
0-750*	15.30	13.77	13.00
0-1000*	19.20	17.28	16.32
0-1500*	19.50	17.55	16.57
0-2000*	19.80	17.82	16.83
0-2500*	20.10	18.09	17.08
0-3000*	20.40	18.36	17.34
0-4000*	20.70	18.63	17.59
0-5000*	21.00	18.90	17.85

**MODEL 1150—6" (2%)**  
All ranges self-shielded movement. Other ranges available on special order.

Range Volts	1-9	10-24	25-49
0-10	\$18.90	\$17.01	\$16.06
0-25	18.90	17.01	16.06
0-50	18.90	17.01	16.06
0-100	18.90	17.01	16.06
0-150	18.90	17.01	16.06
0-300	18.90	17.01	16.06
0-500*	19.50	17.55	16.57

**Note**: External multpliers (Model 183) are furnished on 2 1/2" DC meters 750 v. or higher; and on 3 1/2" and 4 1/2" DC meters 1,000 v. or higher. All others are self-contained.

### DC MILLIAMMETERS—EXTERNAL MAGNET METER MOVEMENT EXCEPT 6"

**MODELS 125, 127—2 1/2"**

Range Ma	1-9	10-24	25-49
0-1†	\$12.15	\$10.93	\$10.32
0-1.5	12.15	10.93	10.32
0-3, -5	12.15	10.93	10.32
0-10†	12.15	10.93	10.32
0-15†	12.15	10.93	10.32
0-20	12.15	10.93	10.32
0-25†	12.90	11.61	10.96
0-50†	12.90	11.61	10.96
0-75	12.90	11.61	10.96
0-100†	12.90	11.61	10.96
0-150†	12.90	11.61	10.96
0-200†	12.90	11.61	10.96
0-250	12.90	11.61	10.96
0-300†	12.90	11.61	10.96
0-500†	12.90	11.61	10.96
0-750	12.90	11.61	10.96
0-1000	12.90	11.61	10.96

**MODELS 25, 27—3 1/2"**

Range Ma	1-9	10-24	25-49
0-1†	\$12.75	\$11.47	\$10.83
0-1.5	12.75	11.47	10.83
0-3, -5	12.75	11.47	10.83
0-10†	12.75	11.47	10.83
0-15†	12.75	11.47	10.83
0-20	12.75	11.47	10.83
0-25†	13.35	12.01	11.34
0-50†	13.35	12.01	11.34
0-75	13.35	12.01	11.34
0-100†	13.35	12.01	11.34
0-150†	13.35	12.01	11.34
0-200†	13.35	12.01	11.34
0-250	13.35	12.01	11.34
0-300†	13.35	12.01	11.34
0-500†	13.35	12.01	11.34
0-750	13.35	12.01	11.34
0-1000	13.35	12.01	11.34

**MODEL 29—4 1/2"**

Range Ma	1-9	10-24	25-49
0-1	\$13.95	\$12.55	\$11.85
0-1.5	13.95	12.55	11.85
0-3, -5	13.95	12.55	11.85
0-10	13.95	12.55	11.85
0-15	13.95	12.55	11.85
0-20	13.95	12.55	11.85
0-25	14.85	13.36	12.62
0-50	14.85	13.36	12.62
0-75	14.85	13.36	12.62
0-100	14.85	13.36	12.62
0-150	14.85	13.36	12.62
0-200	14.85	13.36	12.62
0-250	14.85	13.36	12.62
0-300	14.85	13.36	12.62
0-500	14.85	13.36	12.62
0-750	14.85	13.36	12.62
0-1000	14.85	13.36	12.62

**MODEL 1150—6" (2%)**  
All meters use self-shielded movement. Other ranges available on special order.

Range Ma	#	1-9	10-24	25-49
0-1	46	\$18.90	\$17.01	\$16.06
0-10	10	18.90	17.01	16.06
0-50	20	18.90	17.01	16.06
0-100	1.0	18.90	17.01	16.06
0-500	.2	18.90	17.01	16.06

#### MIRRORED-SCALE

**MODEL 1150-1—6" (1%)**

Range	1-9	10-24	25-49
0-1	46	\$23.85	\$21.46
0-100	1.0	23.85	21.46
0-500	.2	23.85	21.46

### DC MICROAMMETERS—MODELS 25, 27, 29, 125, 127, 1150, 1150-1

**MODELS 125, 127—2 1/2"**

Range μa	1-9	10-24	25-49
0-15†	\$19.65	\$17.68	\$16.70
0-25	17.10	15.39	14.53
0-50	14.85	13.36	12.62
0-100	13.20	11.88	11.22
0-200	12.75	11.47	10.83
0-500	17.35	15.61	14.74
25-0-25	15.00	13.50	12.75
100-0-100	12.90	11.61	10.96
500-0-500	12.30	11.07	10.45

**MODELS 25, 27—3 1/2"**

Range μa	1-9	10-24	25-49
0-15†	\$22.95	\$20.65	\$19.50
0-25	20.55	18.49	17.46
0-50	17.55	15.79	14.91
0-100	15.45	13.90	13.13
0-200	13.95	12.55	11.85
0-500	13.35	12.01	11.34
25-0-25	17.70	15.93	15.04
50-0-50	15.60	14.04	13.26
100-0-100	14.10	12.69	11.98
500-0-500	12.90	11.61	10.96

**MODEL 29—4 1/2"**

Range μa	1-9	10-24	25-49
0-15†	\$25.05	\$22.54	\$21.29
0-25†	22.65	20.38	19.25
0-50	18.90	17.01	16.06
0-100	17.25	15.52	14.66
0-200	15.45	13.90	13.13
0-500	14.85	13.36	12.62
25-0-25	19.05	17.14	16.19
50-0-50	17.40	15.66	14.79
100-0-100	14.85	13.36	12.62
500-0-500	14.10	12.69	11.98

**MODEL 1150—6" (2%)**

Range μa	1-9	10-24	25-49
0-15†	\$29.95	\$26.95	\$25.45
0-25†	26.85	24.16	22.82

# Simpson Accurate Panel Meters

INSTRUMENTS THAT STAY ACCURATE

## RECTANGULAR AND ROUND PANEL METERS (CONT'D)

### DC AMMETERS—MODELS 25, 27, 29, 125, 127, 1150

Ranges Available: 0-1, 0-1.5, 0-2, 0-3, 0-5, 0-10, 0-15, 0-25, 0-30, 0-50, 0-75, 0-100, 0-150, 0-200, 0-250, 0-300, 0-500, 0-750, 0-1000, 0-15-30, 0-30-50 and 50-0-50. Ranges 0-75 through 0-1000 require external shunts; all others are self-contained.

Range Amps	Models 125, 127—2½"			Models 25, 27—3½"			Model 29—4½"			Model 1150—6" 2%		
	Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49
0-1 to 0-50	\$12.90	\$11.61	\$10.96	\$13.35	\$12.01	\$11.34	\$14.70	\$13.23	\$12.49	\$19.65	\$17.68	\$16.70
0-75 to 0-1000	12.45	11.20	10.58	12.90	11.61	10.96	14.40	12.96	12.24	—	—	—
15-0-15, 30-0-30 or 50-0-50	13.20	11.88	11.22	13.65	12.28	11.60	15.15	13.63	12.87	—	—	—

### DC MILLIVOLTMETERS—MODELS 25, 27, 29, 125, 127, 1150

Range Mv	*	Models 125, 127—2½"			Models 25, 27—3½"			Model 29—4½"			Model 1150—6" 2%			
		Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	
0-50	10	\$12.45	\$11.20	\$10.58	0-50	10	\$12.90	\$11.61	\$10.96	0-50	10	\$14.00	\$12.96	\$12.24
0-100	20	12.45	11.20	10.58	0-100	20	12.90	11.61	10.96	0-100	20	14.40	12.96	12.24

\*Resistance, ohms.

### AC VOLTMETERS—MODELS 55, 57, 59, 155, 157

Range Volts	Imped., Ohms!	Models 155, 157—2½"			Models 55, 57—3½"			Model 59—4½"						
		Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	
0-1.5	3	\$11.70	\$10.53	\$9.94	0-1.5	3	\$12.45	\$11.20	\$10.58	0-1.5	3	\$14.10	\$12.69	\$11.98
0-3	12	11.70	10.53	9.94	0-3	12	12.45	11.20	10.58	0-3	12	14.10	12.69	11.98
0-5	33	11.70	10.53	9.94	0-5	33	12.45	11.20	10.58	0-5	33	14.10	12.69	11.98
0-10†	133	11.70	10.53	9.94	0-10†	133	12.45	11.20	10.58	0-10	133	14.10	12.69	11.98
0-15†	300	11.70	10.53	9.94	0-15†	300	12.45	11.20	10.58	0-15	300	14.10	12.69	11.98
0-25	833	12.15	10.93	10.32	0-25	833	12.75	11.47	10.83	0-25	833	14.10	12.69	11.98
0-50	3,333	12.15	10.93	10.32	0-50	3,333	12.75	11.47	10.83	0-50	3,333	14.10	12.69	11.98
0-100	16,666	13.20	11.88	11.22	0-100	16,666	13.80	12.42	11.73	0-100	16,666	14.70	13.23	12.49
0-150†	25,000	12.90	11.61	10.96	0-150†	25,000	13.65	12.28	11.60	0-150	25,000	14.85	13.36	12.62
0-250	41,166	12.90	11.61	10.96	0-250	41,166	13.65	12.28	11.60	0-250	41,166	14.85	13.36	12.62
0-300†	50,000	12.90	11.61	10.96	0-300†	50,000	13.65	12.28	11.60	0-300	50,000	14.85	13.36	12.62
0-500*	83,333	17.40	15.66	14.79	0-500*	83,333	17.70	15.93	15.04	0-500*	83,333	18.30	16.47	15.55
0-750*	125,000	19.20	17.28	16.32	0-750*	125,000	19.35	17.41	16.44	0-750*	125,000	20.10	18.09	17.08
0-1000*	166,666	20.70	18.63	17.59	0-1000*	166,666	20.85	18.76	17.72	0-1000*	166,666	21.75	19.57	18.48

\*Model 183 external multiplier supplied; all others, self-contained. †Available in Models 57 and 157 (only) with Lucite illuminated dials with socket and 6 v. bulb; add \$3.45 to price when ordering. ‡Approx., at 60 cps.

### AC AMMETERS—MODELS 55, 57, 59, 155, 157

Range Amps	Imped., Ohms!	Models 155, 157—2½"			Models 55, 57—3½"			Model 59—4½"						
		Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	
0-1*	.287	\$11.55	\$10.39	\$9.81	0-1*	.287	\$12.15	\$10.93	\$10.32	0-1*	.287	\$14.40	\$12.96	\$12.24
0-1.5*	.185	11.55	10.39	9.81	0-1.5*	.185	12.15	10.93	10.32	0-1.5*	.185	14.40	12.96	12.24
0-2*	.115	11.55	10.39	9.81	0-2*	.115	12.15	10.93	10.32	0-2*	.115	14.40	12.96	12.24
0-3*	.027	11.55	10.39	9.81	0-3*	.027	12.15	10.93	10.32	0-3*	.027	14.40	12.96	12.24
0-5*	.012	11.55	10.39	9.81	0-5*	.012	12.15	10.93	10.32	0-5*	.012	14.40	12.96	12.24
0-10*	.003	11.55	10.39	9.81	0-10*	.003	12.15	10.93	10.32	0-10*	.003	14.40	12.96	12.24
0-15*	.0022	11.55	10.39	9.81	0-15*	.0022	12.15	10.93	10.32	0-15*	.0022	14.40	12.96	12.24
0-25*	.0003	11.85	10.66	10.07	0-25*	.0003	12.45	11.20	10.58	0-25*	.0003	15.00	13.50	12.75
0-30*	.0003	11.85	10.66	10.07	0-30*	.0003	12.45	11.20	10.58	0-30*	.0003	15.00	13.50	12.75
0-50*	.0006	11.85	10.66	10.07	0-50*	.0006	12.45	11.20	10.58	0-50*	.0006	15.00	13.50	12.75
0-75	.0005	—	—	—	0-75*	.0005	13.20	11.88	11.22	0-75*	.0005	15.75	14.18	13.37
0-75	.012	11.55	10.39	9.81	0-75*	.012	12.15	10.93	10.32	0-75*	.012	14.40	12.96	12.24
0-100	.012	11.55	10.39	9.81	0-100	.012	12.15	10.93	10.32	0-100	.012	14.40	12.96	12.24
0-150	.012	11.55	10.39	9.81	0-150	.012	12.15	10.93	10.32	0-150	.012	14.40	12.96	12.24
0-200	.012	11.55	10.39	9.81	0-200	.012	12.15	10.93	10.32	0-200	.012	14.40	12.96	12.24
0-250	.012	11.55	10.39	9.81	0-250	.012	12.15	10.93	10.32	0-250	.012	14.40	12.96	12.24
0-300	.012	11.55	10.39	9.81	0-300	.012	12.15	10.93	10.32	0-300	.012	14.40	12.96	12.24
0-500	.012	11.55	10.39	9.81	0-500	.012	12.15	10.93	10.32	0-500	.012	14.40	12.96	12.24

\*Self-contained. Higher range AC meters (5 amp) require external current transformers, ordered separately. †Approx., at 60 cps.

### AC MILLIAMMETERS—MODELS 55, 57, 59, 155, 157

Ranges Available: 0-10, 0-15, 0-25, 0-50, 0-100, 0-250 and 0-500.

Range Ma	Models 155, 157—2½"			Models 55, 57—3½"			Model 59—4½"				
	Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24
Any range	\$11.55	\$10.39	\$9.81	\$12.15	\$10.93	\$10.32	\$14.40	\$12.96	\$12.24		

### RF MILLIAMMETERS—MODELS 35, 37, 39

Range Ma	*	Models 35, 37—3½"			Model 39—4½"				
		Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49
0-115†	4	\$28.35	\$25.51	\$24.09	0-115†	4	\$29.85	\$26.86	\$25.37
0-150	4.5	18.00	16.20	15.30	0-150	4.5	20.40	18.36	17.34
0-250	3.5	18.00	16.20	15.30	0-250	3.5	20.40	18.36	17.34
0-500	.63	18.00	16.20	15.30	0-500	.63	20.40	18.36	17.34

\*Approx. Imped. (ohms) at 60 cps. †10-100 linear scale.

\*Approx. Imped. (ohms) at 60 cps. †10-100 linear scale.

### COMPENSATED WATTMETERS—SINGLE PHASE

Range Watts	Max.	Model 77—3½"			Model 79—4½"				
		Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49
0-10	.175	\$44.10	\$39.69	\$37.48	0-10	.175	\$45.75	\$41.17	\$38.88
0-20	.400	44.10	39.69	37.48	0-20	.400	45.75	41.17	38.88
0-30	.175	44.10	39.69	37.48	0-30	.175	45.75	41.17	38.88
0-60	.650	44.10	39.69	37.48	0-60	.650	45.75	41.17	38.88
0-300	.300†	44.10	39.69	37.48	0-300	.300†	45.75	41.17	38.88
0-500	.500†	44.10	39.69	37.48	0-500	.500†	45.75	41.17	38.88

†Max. 500 volts. Others 300 v. ‡Max. 500 volts. Others 300 v.

### WATTMETERS—DYNAMOMETER TYPE—SINGLE PHASE—MODELS 75, 77, 79, 175, 177

Range Watts	Maximum Volts	Maximum Amps	Models 175, 177—2½"			Models 75, 77—3½"			Model 79—4½"								
			Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49	Net Each, Lots of	1-9	10-24	25-49			
0-75	150	1.0	\$26.25	\$23.62	\$22.31	0-75	150	1.0	\$27.60	\$24.84	\$23.46	0-75	150	1.0	\$33.90	\$30.51	\$28.81
0-150	150	2.0	26.25	23.62	22.31	0-150	150	2.0	27.60	24.84	23.46	0-150	150	2.0	33.90	30.51	28.81
0-300	150	4.0	26.25	23.62	22.31	0-300	150	4.0	27.60	24.84	23.46	0-300	150	4.0	33.90	30.51	28.81
0-750	150	10.0	26.25	23.62	22.31	0-750	150	10.0	27.60	24.84	23.46	0-750	150	10.0	33.90	30.51	28.81
0-600	300	4.0	28.65	25.78	24.35	0-600	300	4.0	30.00	27.00	25.50	0-600	300	4.0	36.45	32.80	30.98
0-1500	300	10.0	28.65	25.78	24.35	0-1500	300	10.0	30.00	27.00	25.50	0-1500	300	10.0	36.45	32.80	30.98
0-3000	300	20.0	28.65	25.78	24.35	0-3000	300	20.0	30.00	27.00	25.50	0-3000	300	20.0	36.45	32.80	30.98

RANGES WITHOUT PRICES (—) AVAILABLE ON SPECIAL ORDER. CONTINUED, NEXT PAGE

# Simpson Panel Meters, Relays

INSTRUMENTS THAT STAY ACCURATE

## RECTANGULAR AND ROUND PANEL METERS (CONTINUED) VOLUME LEVEL INDICATORS—MODELS 45, 47, 49, 142, 145, 147

**Decibel meters**—Zero power level, 6 mw 500 ohm line; -10 to +6 db 5000 ohms.  
**VU meters**—Reference level, 1 mw 600 ohm line. Scale, 3900 ohms.

### MODELS 145, 147—2½"

Range	Net Each, Lots of		
	1-9	10-24	25-49
General Purpose DB	\$18.30	\$16.47	\$15.55

Range	Net Each, Lots of		
	1-9	10-24	25-49
General Purpose DB	\$18.45	\$16.60	\$15.68
High Speed DB	20.40	18.36	17.34
Low Speed DB	20.25	18.22	17.21
A Scale VU*	22.35	20.11	18.99
B Scale VU*	22.35	20.11	18.99
A Scale VU†	—	—	—
B Scale VU†	—	—	—

\*Not illuminated. †Illuminated; available on special order.

Range	Net Each, Lots of		
	1-9	10-24	25-49
General Purpose DB	\$20.10	\$18.09	\$17.08
High Speed DB	21.75	19.57	18.48
Low Speed DB	21.15	19.03	17.97
A Scale VU*†	24.15	21.73	20.52
B Scale VU*†	24.15	21.73	20.52
A Scale VU†	26.70	24.03	22.69
B Scale VU†	26.70	24.03	22.69

\*Not illuminated. †Illuminated. ‡Model 142; all others Model 49.

### RF AMMETERS—INTERNAL THERMOCOUPLE TYPE

Range Amps	Approx. Imp. Ohms†	Net Each, Lots of		
		1-9	10-24	25-49
0-1*	.343	\$14.10	\$12.69	\$11.98
0-1.5	.200	14.10	12.69	11.98
0-2*	.120	14.10	12.69	11.98
0-2.5	.10	14.10	12.69	11.98
0-3*	.08	14.10	12.69	11.98
0-5*	.045	14.10	12.69	11.98
0-8	.031	14.10	12.69	11.98
0-10	.023	14.10	12.69	11.98

Range Amps	Approx. Imp. Ohms†	Net Each, Lots of		
		1-9	10-24	25-49
0-1*	.343	\$15.00	\$13.50	\$12.75
0-1.5	.200	15.00	13.50	12.75
0-2*	.120	15.00	13.50	12.75
0-2.5	.10	15.00	13.50	12.75
0-3*	.08	15.00	13.50	12.75
0-5*	.045	15.00	13.50	12.75
0-8	.031	15.00	13.50	12.75
0-10	.023	15.00	13.50	12.75

Range Amps	Approx. Imp. Ohms†	Net Each, Lots of		
		1-9	10-24	25-49
0-1	.343	\$17.25	\$15.52	\$14.66
0-1.5	.200	17.25	15.52	14.66
0-2	.120	17.25	15.52	14.66
0-2.5	.10	17.25	15.52	14.66
0-3	.08	17.25	15.52	14.66
0-5	.045	17.25	15.52	14.66
0-8	.031	17.25	15.52	14.66
0-10	.023	17.25	15.52	14.66

\*Add \$3.45 for Lucite illuminated dials with socket and 6 v. bulb, Models 37 and 137 only. †At 60 eps.

### AC VOLTMETER—RECTIFIER TYPE—MODELS 45, 47, 49 200 OHMS PER VOLT

Range Volts	Models 45 and 47—3½"			Model 49—4½"		
	1-9	10-24	25-49	1-9	10-24	25-49
0-1	\$18.75	\$16.88	\$15.94	\$20.55	\$18.50	\$17.47
0-3	18.75	16.88	15.94	20.55	18.50	17.47
0-5	18.75	16.88	15.94	20.55	18.50	17.47
0-10	18.75	16.88	15.94	20.55	18.50	17.47
0-15	18.75	16.88	15.94	20.55	18.50	17.47
0-50	18.75	16.88	15.94	20.55	18.50	17.47
0-100	18.75	16.88	15.94	20.55	18.50	17.47
0-150	18.75	16.88	15.94	20.55	18.50	17.47
0-300	18.75	16.88	15.94	20.55	18.50	17.47

### DC GALVANOMETERS—MODELS 25, 27, 29, 125, 127 SCALE: 50-0-50

Sensitivity $\mu$ A	Res. Ohms	Models 125, 127—2½"		
		1-9	10-24	25-49
500-0-500	46	\$12.75	\$11.47	\$10.83
75-0-75	2000	13.65	12.28	11.60

Sensitivity $\mu$ A	Res. Ohms	Models 25, 27—3½"		
		1-9	10-24	25-49
500-0-500	46	\$13.20	\$11.88	\$11.22
75-0-75	2000	15.00	13.50	12.75

Sensitivity $\mu$ A	Res. Ohms	Model 29—4½"		
		1-9	10-24	25-49
500-0-500	46	\$14.85	\$13.36	\$12.62
75-0-75	2000	15.45	13.90	13.13

### EDGEWISE PANEL INSTRUMENTS—MODELS 1522 AND 1542



For mounting wherever space is a problem. Supplied with mounting hardware, including bezel with two speed nuts for quick, easy mounting. **Types:** DC and AC rectifier. **Accuracy:** DC,  $\pm 2\%$  of full scale; AC,  $\pm 3\%$  of full scale at 25° and 60 cycle sine wave. **Meter Movement:** Self-shielded. **Standard Scale:** Black numbers on white background, 1½" long. **Terminals:** Solder, except Ammeters which have stud type. **Case:** Dustproof, molded acrylic; 2½" w. x 3½" d. x 1.22" h. overall. Fits 2½" x 1½" hole. Two mtg. holes on 2¼" centers.

### MODEL 1522—2½"

Range Mv	Net Each, Lots of		
	1-9	10-24	25-49
0-50	\$15.75	\$14.18	\$13.39

### MODEL 1522—2½"

Range Volts	Net Each, Lots of		
	1-9	10-24	25-49
0-10 to 0-300	\$15.00	\$13.50	\$12.75
0-500	15.15	13.63	12.87

### DC AMMETERS

Range Amps	Net Each, Lots of		
	1-9	10-24	25-49
Any Range	\$15.75	\$14.17	\$13.38

### DC MILLIAMMETERS

Range Ma	Net Each, Lots of		
	1-9	10-24	25-49
0-1 to 0-15	\$14.85	\$13.36	\$12.62
0-25 to 0-500	15.45	13.90	13.13

### MODEL 1522—2½"

Range $\mu$ A	Net Each, Lots of		
	1-9	10-24	25-49
0-25	\$22.20	\$19.98	\$18.87
0-50	19.50	17.55	16.57
0-100	17.40	15.66	14.79
0-200	15.75	14.17	13.38
0-500	15.30	13.77	13.00

### MODEL 1542—2½"

Model 1542 Range	Net Each, Lots of		
	1-9	10-24	25-49
A or B Scale VU	\$24.75	\$22.27	\$21.03

### RECTIFIER TYPE AC VOLTMETER

Model 1542 Range, Volts	Net Each, Lots of		
	1-9	10-24	25-49
0-150, 0-300	\$19.20	\$17.28	\$16.32

### METER RELAYS—MODELS 29XA AND 3324XA

**MODEL 29XA CONTACT TYPE**  
D'Arsonval movement. **Contacts:** Externally adjustable over 95° of 100° scale arc, within 5° of each other. Non-locking; for use in circuits with external locking provisions or in non-locking uses. Will close within 2% and break within 10% of full scale value. Gold alloy. For use at 15 v. DC 10 ma max. on resistive or diode protected inductive loads. **Accuracy:**  $\pm 2\%$  full scale. **Insulation Breakdown:** 300 v. AC from relay contacts to meter circuit; 3 kv AC, relay terminals to mounting panel (all at 60 cps). **Size:** 4.66" x 4.2"; body, 2.75" dia. X 0.97" deep.

### MODEL 3324XA CONTACTLESS

Set points externally adjustable over 95% of scale arc through external front gear drive; indication, by separate lance pointer, within 2% of actual switching. Sensing

is done through an infinite life lamp and photoconductors. Solid-state switching circuit and DPDT slave relay provided internally for each control point; both slaves open in case of power failure. Slaves will switch to 10 amps at 115 v. AC. **Power Required:** 115 v. AC, 50-500 cps. DC required for sensing and switching is provided by external power module furnished with relay. **Size:** 4.68" x 4.15"; body 2.72" dia. x 4.25" deep.

### MODEL 29XA

Range	Model No.	Net Each, Lots of		
		1-9	10-24	25-49
0-50 $\mu$ A	7032	\$44.10	\$39.69	\$37.48
0-100 $\mu$ A	7034	42.15	37.93	35.82
0-200 $\mu$ A	7036	39.60	35.64	33.66
0-500 $\mu$ A	7038	39.00	35.10	33.15
0-1 ma	7040	38.10	34.29	32.38
0-50 mv	7050	38.25	34.42	32.51

### MODEL 3324XA SINGLE CONTROL

Range	Model No.	Net Each, Lots of		
		1-9	10-24	25-49
0-50 $\mu$ A	16451	\$ 90.00	\$ 81.00	\$ 76.50
0-100 $\mu$ A	16452	87.30	78.57	74.21
0-200 $\mu$ A	16453	87.30	78.57	74.21
0-500 $\mu$ A	16454	87.30	78.57	74.21
0-1 ma	16455	86.40	77.76	73.44
0-50 mv	16460	86.70	78.03	73.70

### MODEL 3324XA DOUBLE CONTROL

Range	Model No.	Net Each, Lots of		
		1-9	10-24	25-49
0-50 $\mu$ A	16470	\$123.90	\$111.51	\$105.32
0-100 $\mu$ A	16471	121.50	109.35	103.28
0-200 $\mu$ A	16472	121.20	109.08	103.02
0-500 $\mu$ A	16473	121.20	109.08	103.02
0-1 ma	16474	120.30	108.27	102.26
0-50 mv	16480	120.75	108.68	102.64

# Simpson Special Panel Meters

INSTRUMENTS THAT STAY ACCURATE

## NEW "RUGGED SEAL" PANEL METERS

Metal-cased panel instruments ideal for use in field test equipment or where rigorous environments are encountered. Completely sealed, commercially ruggedized, metal cased and shielded against steel panel mounting. External magnet movement.

**Standard Metal-Cased Meters:** AC meters are rectifier type with  $\pm 2\%$  of full scale accuracy at 25° C and 60-cycle sine wave. AC ammeters maintain accuracy over 55-125 cps range; other AC meters over 25-2500 cps range. DC meters have  $\pm 2\%$  of full scale accuracy.

**Segmental Metal-Cased Meters:** Measure very small changes in input with segmental voltmeters and frequency meters. Significant portion is expanded to occupy the full scale length.

Expanded-Scale Type Meter	Freq. Range, Cps	Sensitivity Ohms/Volt	Waveform Influence		Max. Input Volts Rms
			Squarewave	Triangular	
AC Voltmeters†	55-550	50, 65, 80*	2.5, 2, 1%*	1.2, .6, .3%*	150
DC Voltmeters		100			40†
Frequency Meters		3 VA max.	.1% max.	.1% max.	140

\*For 100-130, 105-125 and 110-120 v. ranges respectively. †Volts max. input. ‡Rms sensing.

### METER SIZES

Size	Fig.	Model	Size, Inches
2 1/2"	B	3282	2.695 dia. flange; body 2.09 dia. x .294 d.
	B	3222	2.695 dia. flange; body 2.21 dia. x 1.60 d.
3 1/2"	B	3223	3.51 dia. flange; body 2.80 dia. x 1.66 d.
	B	3283	3.510 dia. flange; body 2.72 dia. x 3.16 d.
	A	3323, 3343	3.25 sq.; body 2.69 dia. x 1.23 d.
	A	3383	3.25 sq.; body 2.72 dia. x 3.52 d.
4 1/2"	B	3224	4.60 dia. flange; body 3.76 dia. x 1.51 d.
	B	3284	4.51 dia. flange; body 3.58 dia. x 3.83 d.
	A	3324, 3344	4.68 x 4.15; body 2.69 dia. x 1.21 d.
	A	3384	4.68 x 4.15; body 2.72 dia. x 3.52 d.
4" x 6"	C	3326, 3346	5.84 x 4.62; body 2.69 dia. x 1.19 d.
	C	3386	5.84 x 4.62; body 2.72 dia. x 3.50 d.

### DC MODELS 3323, 3324 AND 3326

#### DC VOLTMETERS

Ranges Available: 0-1.5, 0-10, 0-15, 0-25, 0-50, 0-100, 0-500.

Range, Volts	Approx. Resis., Ohms	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
Any Value, Above	1000 per volt	3323	3 1/2"	\$17.10	\$15.39	\$14.53
		3324	4 1/2"	18.60	16.74	15.81
		3326	4" x 6"	20.40	18.36	17.34

#### DC AMMETERS

Range, Amps	Internal Shunt	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
0-5 or 0-10	75 mV max.	3323	3 1/2"	\$17.40	\$15.66	\$14.79
		3324	4 1/2"	18.90	17.01	16.06
		3326	4" x 6"	21.00	18.90	17.85

#### DC MILLIAMMETERS

Range, Ma	Approx. Resis., Ohms	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
0-1	80	3323	3 1/2"	\$16.50	\$14.85	\$14.03
		3324	4 1/2"	18.00	16.20	15.30
		3326	4" x 6"	19.95	17.96	15.96
0-100	.5	3323	3 1/2"	17.40	15.66	14.79
		3324	4 1/2"	18.90	17.01	16.06
		3326	4" x 6"	21.00	18.90	17.85

#### DC MICROAMMETERS

Range, $\mu$ A	Approx. Resis., Ohms	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
0-50	3000	3323	3 1/2"	\$22.20	\$19.98	\$18.87
		3324	4 1/2"	23.70	21.33	20.14
		3326	4" x 6"	25.95	23.36	22.06
0-100	1300	3323	3 1/2"	20.10	18.09	17.08
		3324	4 1/2"	21.60	19.44	18.36
		3326	4" x 6"	24.00	21.60	20.40

### EXPANDED-SCALE SEGMENTAL FREQUENCY METERS

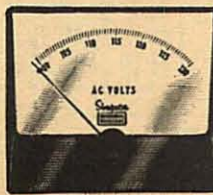
Accuracy: 0.25%, checked at center scale frequency at 25° C and 115 volts sine wave after 30-minute warmup; after 1-minute warmup, 1.0%; at end scale, maximum error is 0.5%.

Range, Cps	Center, Cps	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
57-63 or 380-420	60	3283	3 1/2" rd.	\$152.50	\$137.25	\$129.63
		3284	4 1/2" rd.	159.50	143.55	135.58
	400	3383	3 1/2" sq.	148.25	133.43	126.01
		3384	4 1/2" sq.	153.00	137.70	130.05
		3386	4" x 6"	157.50	141.75	133.88

### SEGMENTAL VOLTMETERS

150 v. rms (10 sec.); Multi, 150, 300, 600 v. rms (10 sec.) per range respectively. Waveform Influence: Squarewave, 11%; Triangular, 5%. Size: Model 1347, 4.68" x 4.0" flange, body 2.75" dia. x 1.08" d.; Model 1347, 3.25" sq. flange, body 2.73" dia. x 1.08" d.; Model 49, 4.66" x 4.2" flange, body 2.75" dia. x 1" d.

Models 1347 and 1349



Self-shielding movement. Has 4 mounting studs. Possible to measure small changes in input conditions. Frequency Range: Single, 20-2000 cps; Multi, 50-1000 cps. Sensitivity: 6-1.3 VA, decreases as input voltage increases. Range: Single 100-130 v. AC; Multi, 100-130; 200-260; 400-520 v. AC. Input Voltage (max): Single,

#### WIDE-VUE TYPES

Model	Size	Net Each, Lots of		
		1-9	10-24	25-49
1347	3 1/2"	\$40.80	\$36.72	\$34.68
1349	4 1/2"	40.95	36.85	34.80
1349*	4 1/2"	50.60	45.54	43.01

#### RECTANGULAR TYPE

Model	Size	Net Each, Lots of		
		1-9	10-24	25-49
49	4 1/2"	\$40.50	\$36.45	\$34.42

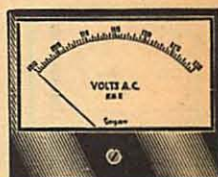
\*Multi-range type; with external potential transformer.



A



B



C

### AC MODELS 3343, 3344 AND 3346

#### AC VOLTMETERS—RECTIFIER TYPE

Range, Volts	Approx. Resis., Ohms	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
0-150 or 0-300	1000 per Volt	3343	3 1/2"	\$20.70	\$18.63	\$17.59
		3344	4 1/2"	21.90	19.71	18.61
		3346	4" x 6"	24.00	21.60	20.40

#### AC AMMETERS—RECTIFIER TYPE

Range, Amps	Internal Trans. Burden	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
0-1 or 0-5	0.5 VA max.	3343	3 1/2"	\$25.80	\$23.22	\$21.93
		3344	4 1/2"	27.00	24.30	22.95
		3346	4" x 6"	29.10	26.19	24.74

#### AC MILLIAMMETERS—RECTIFIER TYPE

Range, Ma	Approx. Resis., Ohms	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
0-1	600	3343	3 1/2"	\$20.40	\$18.36	\$17.34
		3344	4 1/2"	21.60	19.44	18.36
		3346	4" x 6"	23.40	21.06	19.89

#### AC MICROAMMETERS—RECTIFIER TYPE

Range, $\mu$ A	Approx. Resis., Ohms	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
0-100	4000	3343	3 1/2"	\$21.60	\$19.44	\$18.36
		3344	4 1/2"	22.50	20.25	19.12
		3346	4" x 6"	24.60	22.14	20.91

### EXPANDED-SCALE SEGMENTAL AC VOLTMETERS

Center Scale: 115 volts, all models.

Range, Volts	Accuracy*	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
100-130 or 105-125	1.0% or 0.5%	3282	2 1/2" rd.	\$70.00	\$63.00	\$59.50
		3283	3 1/2" rd.	64.50	58.05	54.83
		3284	4 1/2" rd.	71.50	64.35	60.78
or 110-120	0.3%	3383	3 1/2" sq.	59.00	53.10	50.15
		3384	4 1/2" sq.	65.00	58.50	55.25
		3386	4" x 6"	69.50	62.55	59.08

### EXPANDED SCALE SEGMENTAL DC VOLTMETERS

Center Scale: 27 volts.

Range, Volts	Accuracy*	Model	Size	Net Each, Lots of		
				1-9	10-24	25-49
24-30	0.5%	3222	2 1/2" rd.	\$60.00	\$54.00	\$51.00
		3223	3 1/2" rd.	54.60	49.14	46.41
		3224	4 1/2" rd.	61.50	55.35	52.28
		3323	3 1/2" sq.	49.20	44.28	41.82
		3324	4 1/2" sq.	55.20	49.68	46.92
		3326	4" x 6"	59.40	53.46	50.49

\*Accuracy is in percent of center scale value.

### ELAPSED TIME METERS

Use self-starting synchronous clock motors. Indicate up to 99999.9, then recycle and begin again at 00000.0. Molded Bakelite case similar to the Simpson 3 1/2" rectangular and round meters. Case depth 2 1/4". Mount by 1/4-28 studs. Body 2.75" dia.

Range (60 cps)	Models 55ET*, 57ET†		
	1-9	10-24	25-49
120 v.	\$18.85	\$16.96	\$16.02
240 v.	19.15	17.23	16.27

\*Round case with 3.50" dia. flange. †Rectangular case 3.12" w. x 3.00" h. ‡Registered Bakelite Corp. trademark.