

Round Style Analog Panel Meters



- **UL Recognized - File # E91015**
Except for the Wattmeters & Frequency Meters
- **Glass window for optimum viewing**
- **Rugged black plastic case**
- **Black spade-type pointer for easy distant reading**

Specifications

Accuracy:	±2% F.S. (Iron-Vane), ±3% F.S. (Rectifier)
Frequency models:	45-55Hz ±0.3Hz (120V-240V) 55-65Hz ±0.3Hz (120V-240V) 380-420Hz ±1.2Hz (120V-240V)
Wattmeters:	±2% F.S.; Compensated Meters: ±3% F.S.
Movement:	Models 55, 155: Iron-vane, magnetically damped Models 45, 145: Annular, rectifier type Models 85 & 185: small core magnet, self-shielding Models 25, 27, 29, 125: Annular, self-shielding
Tracking:	±3%
Shielding:	Calibration is unaffected by magnetic panel mounting.
Response Time:	1.5 seconds maximum
Overload (1 sec.):	10 times F. S.
Overload (Continuous):	1.5 times F. S.
Repeatability:	2%
Dial:	Sharp clear scale. Each dial arc is calibrated to track the specific type of movement used.
Case:	High density black plastic
Resistance:	±15%
Operating Temp:	-4°F to +149°F (-20°C to +65°C)
Pointer:	Models 85 & 185: knife edge, black finish All others: spade pointer with black matte finish
Scale Length:	Model 155 & 185: 1.6" (40.6mm) Models 125 & 145: 1.8" (45.7mm) Model 55: 2.3" (58.4mm) Models 25, 27, 45 & 85: 2.5" (63.5mm) Model 29: 3.80" (96.5mm)
Net Weight:	Models 55, 155 & 185: 5oz (0.14kg) Models 85, 125, 145 & 45: 7oz (0.20kg) Models 25 & 27: 8oz (.23kg) Model 29: 11oz (.31kg)

Ordering Information

AC Microammeters Rectifier Type, Self Shielding Movement

Range	Approx. Impedance (ohms)	Model/Size and Catalog Number	
		3-1/2" Model 45	
0-100	3400	04080	

AC Milliammeters, Iron Vane & Rectified Movement *

Range	Approx. Impedance (ohms) @ 60 Hz	Model/Size and Catalog Number		
		2-1/2" Model 155	3-1/2" Model 55	3-1/2" Model 45*
0-1	600	<>	<>	06820*
0-5	200	<>	<>	06840*
0-15	887.0	<>	05380	<>
0-50	80.0	<>	05400	<>
0-100	717.2	<>	05410	<>
0-150	8.76	<>	35069	<>
0-250	3.1	06080	05420	<>
0-500	.9	<>	05430	<>

* Rectified Models

AC Ammeters, Iron Vane Movement

Range	Approx. Impedance (ohms) @ 60 Hz	Model/Size and Catalog Number	
		2-1/2" Model 155	3-1/2" Model 55
0-1	.213	02100	00950
0-1.5	.105	<>	00960
0-2	.065	02120	00970
0-3	.028	02130	00980
0-5	.008	02140	00990
0-10	.004	02150	01001
0-15	.0025	02160	01010
0-25	.002	02170	01020
0-30	.0015	02180	01030
0-50	.001	02190	01040
0-75	.0002	<>	03432
0-75	.008	02200*	<>
0-100	.008	02210*	01060*
0-150	.008	02220*	01070*
0-200	.008	<>	01080*
0-250	.008	02240*	01090*
0-300	.008	<>	01100*
0-500	.008	02260*	01110*

<> Available on special order.

* These meters require use of an external current transformer



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Ordering Information

AC Voltmeters, Iron Vane Movement

Range	Approx. Impedance (Ohms) @ 60 H	Model/Size and Catalog Number	
		2-1/2" Model 155	3-1/2" Model 55
0-5	33	<>	08410
0-10	133	<>	08420
0-15	300	<>	08430
0-25	833	<>	08440
0-50	3,333	09290	08450
0-100	16,166	<>	08460
0-150	25,000	09310	08470
0-250	41,166	09320	08480
0-300	50,000	09330	08490
0-500	83,333	09340*	08500*
0-750	125,000	<>	08510*

* External multipliers (model 183) are furnished on AC meters having a range of 500 volts or higher.

<> Available on special order

AC Volt Meters Rectifier Type, Self Shielding Movement

Range	Approx. Impedance (ohms) @ 60 Hz	Model/Size and Catalog Number
		3-1/2" Model 45
0-150	300K	08010

4-20mA Process Meters, Dial indicates 0-100 Percent

Range	Approx. Impedance (Ohms)	Model/Size and Catalog number 3-1/2" Model 25
4-20	5.0	35022

Wattmeters - Dynamometer Type

Not 

Range	Maximum		Model/Size and Catalog Number
	Volts	Amps	3-1/2" Model 75
0-300	150	4.0	10600

Frequency Meters, Self-Shielding Movement

Not 

Range	Voltage	Model/Size and Catalog Number	
		2-1/2" Model 185	3-1/2" Model 85
45-55 Hz	120V	35154	35160
55-65 Hz	120V	35156	35162
380-420 HZ	120V	35158	35164
45-55 Hz	240V	35155	35161
55-65 Hz	240V	35157	35163
380-420 Hz	240V	35159	35165



Round Style Analog Panel Meters

Ordering Information

DC Microammeters, Self Shielding Movement

Range	Approx. Impedance (ohms) @ 60 Hz	Model/Size and Catalog Number	
		2-1/2" Model 125	3-1/2" Model 25
0-50	1800	04210	03760
0-100	1800	04220	03770
0-200	1100	04230	03780
0-500	90	04240	03790
50-0-50	1800	04194	03810
100-0-100	1100	04196	03820
500-0-500	43	<>	03830

<> Available on special order

DC Taut-Band Microammeters, Self-Shielding Movement

Range	Approx. Impedance(ohms) @ 60 Hz	Model/Size and Catalog Number	
		2-1/2" Model 125T	3-1/2" Model 25T
0-10	4900	04197	<>
0-15	1960	<>	03741
0-25	1960	04201	03751
0-50	960	<>	03761
0-100	500	<>	03771

<> Available on special order

DC Milliammeters, Self Shielding Movement

Range	Approx. Impedance (ohms) @ 60 Hz	Model/Size and Catalog Number	
		2-1/2" Model 125	3-1/2" Model 25
0-1	43.0	05580	04610
0-1.5	43.0	<>	04620
0-5	2.0	05610	04640
0-10	10.0	05620	04650
0-15	6.6	05630	04660
0-25	4.0	05650	04680
0-50	2.0	<>	04690
0-75	1.3	05670	<>
0-100	1.0	05680	04710
0-150	.66	05690	04720
0-200	.5	05700	04730
0-250	.5	05710	<>
0-300	.33	<>	04750
0-500	.2	05730	04760
0-1000	.05	<>	04780

<> Available on special order.

DC Ammeters, Self Shielding Movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number	
		2-1/2" Model 125	3-1/2" Model 25
0-1	.050	01460	00005
0-2	.025	<>	00030
0-3	.0166	01490	00040
0-5	.010	01500	00050
0-10	.005	01510	00060
0-15	.0033	01520	00070
0-25	.002	01530	00080
0-30	.0017	01540	00090
0-50	.001	01550	00099
0-75	10.0	01560*	00110*
0-100	10.0	01570*	00120*
0-150	10.0	01580*	00130*
0-200	10.0	01590*	00140*
0-250	10.0	<>	00151*
0-300	10.0	01610*	00160*
0-500	10.0	01620	00170*
0-750	10.0	<>	00177*
0-1000	10.0	<>	00188*
15-0-15	.0033	<>	00200
30-0-30	.0017	01660	00210
50-0-50	.001	01670	00220
75-0-75	20.0	35066	35037*

* DC current meters are self-contained for ranges up to and including 50 amperes. Higher range DC current meters (50 mV) listed above are calibrated for 5' leads and require external shunts.

<> Available on special order.

DC Millivoltmeters, Self Shielding Movement

Range	Approx. Impedance (ohms) @ 60 Hz	Model/Size and Catalog Number	
		2-1/2" Model 125	3-1/2" Model 25
0-50	10.0	06970	06910
0-100	20.0	<>	35093

<> Available on special order.

DC Voltmeters, Self Shielding Movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number	
		2-1/2" Model 125	3-1/2" Model 25
0-1.5	1000 Ohms Per Volt	08850	<>
0-3		<>	07070
0-5		08870	07080
0-10		08890	07100
0-15		08900	07110
0-25		08910	07120
0-30		08920	07130
0-50		08930	07140
0-100		08940	07150
0-150		08950	07160
0-200		08960	07170
0-250		08970	07180
0-300	2000 Ohms Per Volt	<>	07190
0-500		<>	07200
0-750		<>	07210
0-1000		<>	07220*
0-2000		<>	07240*
0-3000		<>	07260*
0-5000		<>	07280*

*External multipliers, Model 183, are furnished on 2-1/2" DC meters 750 volts or higher.

<> Available on special order.

Simpson

2-1/2" Models 125, 1251, 145, 155, & 185

Technical drawing showing the side and top views of a flange component.

Side View Dimensions:

- Top flange thickness: .24
- Main body thickness: 1.39
- Bottom flange thickness: .29
- Total height: 2.69
- Central hole diameter: 2.22 DIA.
- Mounting stud diameter: .70
- Mounting stud height: 2.18 DIA.

Top View Dimensions:

- Outer diameter: 2.44 DIA.
- Distance between mounting hole center and main hole center: 1.31
- Mounting hole diameter: .16 DIA. DRILL THRU. (3) MTG. HOLES REQ'D 120 APART
- Distance from outer edge to mounting hole center: .30

Notes:

- (2) #1/4-28 STUDS

3-1/2" Models 25 & 251, 55, 85 & Model 45 Process Meter

Technical drawing showing the side and top views of a 3-1/2 inch meter head. The side view (left) shows a rectangular body with a total width of 1.31 inches, a top flange width of 0.25 inches, and a bottom flange width of 0.70 inches. The overall height is 3.50 inches. The top flange has a thickness of 2.82 inches. The bottom flange has a thickness of 2.75 inches. The top view (right) shows a circular face with a diameter of 3.16 inches. It features three mounting holes, each with a diameter of 0.16 inches, spaced 120 degrees apart. The distance between the centers of the mounting holes is 1.50 inches. The distance from the center of the mounting holes to the center of the meter head is 0.30 inches. The drawing also indicates that the holes require a 120-degree spacing.

Dimensions and features:

- Top flange width: 0.25
- Top flange thickness: 2.82 DIA.
- Bottom flange width: 0.70
- Bottom flange thickness: 2.75 DIA.
- Overall height: 3.50 DIA.
- Overall width: 1.31
- Top view diameter: 3.16 DIA.
- Mounting holes: .16 DIA. DRILL THRU. (3) MTG. HOLES REQ'D 120 APART
- Distance between mounting holes: 1.50
- Distance from center of mounting holes to center of meter head: 0.30
- Mounting holes: (2) #1/4-28 STUDS

NOTE: "T" model suffix used for Taut-Band movement

3-1/2" Model 75 Wattmeter

Technical drawing showing the side and top views of the 3-1/2" Model 75 Wattmeter.

Side View Dimensions:

- Overall Length: 2.06
- Overall Diameter: 3.50 DIA.
- Mounting Hole Diameter: .25
- Mounting Stud Diameter: .64
- Mounting Stud Length: 2.81 DIA.
- Mounting Stud Spacing: 2.75 DIA.
- Mounting Stud Thread: (4) #1/4-28 STUDS

Top View Dimensions:

- Overall Diameter: 3.16 DIA.
- Mounting Hole Diameter: .25
- Mounting Stud Diameter: .64
- Mounting Stud Length: 2.81 DIA.
- Mounting Stud Spacing: 2.75 DIA.
- Mounting Stud Thread: (4) #1/4-28 STUDS
- Mounting Stud Spacing: 1.75
- Mounting Stud Spacing: 1.00
- Mounting Stud Spacing: .75
- Mounting Stud Spacing: .30

Notes:

- .16 DIA. DRILL THRU. (3) MTG. HOLES REQ'D 120° APART