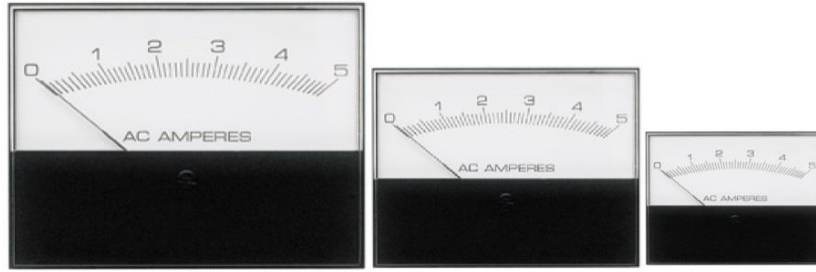


S Series - Surface Mount Panel Meters



The S Series Surface Mount Panel Meters are clean-cut meters with straightforward design and pleasing aspect ratio are leaders of the Modutec line and add distinction to any instrument or control panel. Available in five sizes and a wide variety of types and ranges, they resolve many problems for the equipment designer and are always a solid choice for function and appearance.

AC Meters in this series are available in both moving coil (rectifier type) and iron vane versions. The latter has the virtue of being relatively insensitive to input distortion, while the rectifier type is less affected by frequency variations.

Features:

- Available with DC, AC Iron Vane, and AC Rectified inputs
- DC: μA , mA, A, mV, V, Pyrometer (Thermocouple), DVU
- AC: mA, A, V, VU Frequency
- Custom designed inputs and scales available

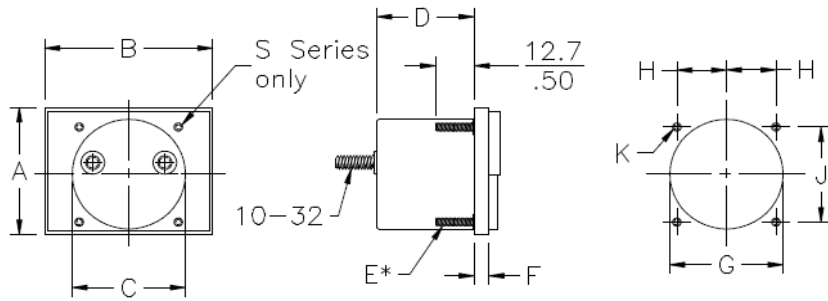
Performance

Accuracy*	$\pm 2\%$ DC; $\pm 2\%$ AC - iron vane; $\pm 3\%$ AC - rectifier type (60Hz sine wave)
Tracking*	$\pm 1 \frac{1}{2}\%$ DC; $\pm 2\%$ AC; vertical mounting
Repeatability*	0.5% DC and rectifier; $\pm 2\%$ iron vane
Response Time	1.5 seconds maximum for all ranges, except 0-50 μA and below, where the response
Symmetry*	$\pm 1.5\%$
Resistance	$\pm 10\%$ DC and rectifier; $\pm 30\%$ iron vane
Scale Arc	100° (iron vane 90°)
Shielding	Self-shielded; no special calibration needed for steel or non-ferrous panel mounting, including iron vane meters.

Meter Size	DC & Rectifier	Iron Vane
Scale Length - 1 $\frac{1}{2}$ "	1.75"	----
Scale Length - 2 $\frac{1}{2}$ "	2.41"	2.15"
Scale Length - 3 $\frac{1}{2}$ "	3.00"	2.70"
Scale Length - 4 $\frac{1}{2}$ "	4.22"	3.80"
Scale Length - 5 $\frac{1}{2}$ "	5.12"	----

*Percent of full scale. On zero center meters, specification applies to full scale, not end scale values, e.g., 50-0-50 μA is 100 μA full scale.

Outline Drawing - S Series



S Series panel cutout

Dimensional Data - S Series

		A	B	C	D	E	F	G	H	J	K	L	M	R	S	T	V	W
1S	mm.	44.5	56.9	25.1	19.3	21.1	12.2	8.6	33.0	22.1		M3*	6.4	39.4	16.8	16.8	33.3	3.2
	In.	1.75	2.24	.99	.76	.83	.48	.34	1.30	.87	N/A	4-40	.25	1.55	.66	.66	1.31	.125
2S	mm.	57.7	75.9	33.8	27.2	28.7	14.2	10.2	33.0	31.5		M3*	12.7	56.4	23.9	23.9	47.8	3.2
	In.	2.27	2.99	1.33	1.07	1.13	.56	.40	1.30	1.24	N/A	4-40	.50	2.22	.94	.94	1.88	.125
3S	mm.	72.9	94.0	36.6	33.8	36.6	14.2	10.4	33.0	39.4		M3*	12.7	71.6	28.4	28.4	57.2	3.2
	In.	2.87	3.70	1.44	1.33	1.44	.56	.41	1.30	1.55	N/A	4-40	.50	2.82	1.12	1.12	2.25	.125
4S	mm.	100.6	129.5	44.2	33.8	44.2	14.2	12.9	33.0	55.9		M3.5*	12.7	71.6	50.8	39.1	90.4	3.8
	In.	3.96	5.10	1.74	1.33	1.74	.56	.51	1.30	2.20	N/A	6-32	.50	2.82	2.00	1.54	3.56	.150
5S	mm.	113.8	148.6	41.9	33.8	41.9	14.2	14.0	33.0	63.5		M3.5*	12.7	71.6	66.8	21.6	76.2	3.8
	In.	4.48	5.85	1.65	1.33	1.65	.56	.55	1.30	2.50	N/A	6-32	.50	2.82	2.63	.85	3.00	.150
5S Opt. 1	mm.	113.8	148.6	41.9	33.8	41.9	14.2	14.0	33.0	63.5		M3.5*	12.7	71.6	57.2	27.8	88.9	3.8
	In.	4.48	5.85	1.65	1.33	1.65	.56	.55	1.30	2.50	N/A	6-32	.50	2.82	2.25	1.093	3.50	.150

Available Options

How to Order

Suffix	Option	S
A	Improved Accuracy ¹	●
-	Bezel Mount Kits ("BA")	●
B	4-stud Mounting	*
C	Colors, Meter Cover & Bezel	●
D	Blank Dials	●
DD	Opaque Dials	*
E	Custom Resistance ^{1 2}	●
F	Fast Response ^{1 2}	●
G	Custom Pointers	●
IEC	ANSI Symbols on Dial	●
KW	Illumination	●
M	Mirror Scale	●
NL	Heavy Damping ³	●
NS	Untacked Covers	●
P	Single Point Calibration	●
R	Improved Resistance	●
S	Sealed Case	●
T	Temperature Compensation ¹	●
U	Unit Meter Packaging	●
V	High Resistance Voltmeters ¹	●
X2	Metric Studs & Terminals	●
Y	Insulated Terminals	●
Z	Rear Zero Adjust ¹	●

Please refer to the Series S & W Catalog. When placing an order, replace the □ in the catalog number with an "S". Mention any options you would like to add to your meter.

Panel Meter Sales Contact Information

Toll Free 800-638-3771
meters@jewellinstruments.com

Notes: ¹ Not available on AC types. ² Extra time required for set up. ³ Not available on iron-vane types. * Furnished as standard. ● Option Available

www.jewellinstruments.com

©2014 Jewell Instruments LLC | 850 Perimeter Road | Manchester, NH 03103 | 800-638-3771



Jewell Instruments S Series Catalog 2014

Meter Size		1½"	2½"	3½"	4½"	5½"
Range	Resistance (ohms)	Catalog #	Catalog #	Catalog #	Catalog #	Catalog #
DC MICROAMMETERS – Taut band, moving coil: Zero left						
0-50	2600	1S-DUA-050	2S-DUA-050	3S-DUA-050	4S-DUA-050	5S-DUA-050
0-100	640	1S-DUA-100	2S-DUA-100	3S-DUA-100	4S-DUA-100	5S-DUA-100
0-200	220	1S-DUA-200	2S-DUA-200	3S-DUA-200	4S-DUA-200	5S-DUA-200
0-500	135	1S-DUA-500	2S-DUA-500	3S-DUA-500	4S-DUA-500	5S-DUA-500

DC MICROAMMETERS – Taut band, moving coil: Zero left, high torque, ruggedized movements						
0-50	5400	T1S-DUA-050	T2S-DUA-050	T3S-DUA-050	T4S-DUA-050	T5S-DUA-050
0-100	3700	T1S-DUA-100	T2S-DUA-100	T3S-DUA-100	T4S-DUA-100	T5S-DUA-100
0-200	640	T1S-DUA-200	T2S-DUA-200	T3S-DUA-200	T4S-DUA-200	T5S-DUA-200
0-500	515	T1S-DUA-500	T2S-DUA-500	T3S-DUA-500	T4S-DUA-500	T5S-DUA-500
*0-200	2500	HT1S-DUA-200	HT2S-DUA-200	HT3S-DUA-200	HT4S-DUA-200	HT5S-DUA-200
*0-500	1700	HT1S-DUA-500	HT2S-DUA-500	HT3S-DUA-500	HT4S-DUA-500	HT5S-DUA-500

***Very high torque**

DC MICROAMMETERS – Taut band, moving coil: Zero center						
25-0-25	2600	1S-DUA-25U25	2S-DUA-25U25	3S-DUA-25U25	4S-DUA-25U25	5S-DUA-25U25
50-0-50	640	1S-DUA-50U50	2S-DUA-50U50	3S-DUA-50U50	4S-DUA-50U50	5S-DUA-50U50
100-0-100	230	1S-DUA-1H1	2S-DUA-1H1	3S-DUA-1H1	4S-DUA-1H1	5S-DUA-1H1
500-0-500	35	1S-DUA-5H5	2S-DUA-5H5	3S-DUA-5H5	4S-DUA-5H5	5S-DUA-5H5

DC MICROAMMETERS – Taut band, moving coil: Zero center, high torque, ruggedized movements						
50-0-50	3700	T1S-DUA-50U50	T2S-DUA-50U50	T3S-DUA-50U50	T4S-DUA-50U50	T5S-DUA-50U50
100-0-100	640	T1S-DUA-1H1	T2S-DUA-1H1	T3S-DUA-1H1	T4S-DUA-1H1	T5S-DUA-1H1
500-0-500	135	T1S-DUA-5H5	T2S-DUA-5H5	T3S-DUA-5H5	T4S-DUA-5H5	T5S-DUA-5H5

DC MILLIAMMETERS – Taut band, moving coil: Zero left						
0-1	35.0	1S-DMA-001	2S-DMA-001	3S-DMA-001	4S-DMA-001	5S-DMA-001
0-2	12.5	1S-DMA-002	2S-DMA-002	3S-DMA-002	4S-DMA-002	5S-DMA-002
0-3	7.2	1S-DMA-003	2S-DMA-003	3S-DMA-003	4S-DMA-003	5S-DMA-003
0-5	3.8	1S-DMA-005	2S-DMA-005	3S-DMA-005	4S-DMA-005	5S-DMA-005
0-10	2.2	1S-DMA-010	2S-DMA-010	3S-DMA-010	4S-DMA-010	5S-DMA-010
0-15	3.3	1S-DMA-015	2S-DMA-015	3S-DMA-015	4S-DMA-015	5S-DMA-015
0-20	2.5	1S-DMA-020	2S-DMA-020	3S-DMA-020	4S-DMA-020	5S-DMA-020
0-25	2.0	1S-DMA-025	2S-DMA-025	3S-DMA-025	4S-DMA-025	5S-DMA-025
0-30	1.7	1S-DMA-030	2S-DMA-030	3S-DMA-030	4S-DMA-030	5S-DMA-030
0-50	1.0	1S-DMA-050	2S-DMA-050	3S-DMA-050	4S-DMA-050	5S-DMA-050
0-100	.50	1S-DMA-100	2S-DMA-100	3S-DMA-100	4S-DMA-100	5S-DMA-100
0-150	.33	1S-DMA-150	2S-DMA-150	3S-DMA-150	4S-DMA-150	5S-DMA-150
0-200	.25	1S-DMA-200	2S-DMA-200	3S-DMA-200	4S-DMA-200	5S-DMA-200
0-300	.166	1S-DMA-300	2S-DMA-300	3S-DMA-300	4S-DMA-300	5S-DMA-300
0-500	.10	1S-DMA-500	2S-DMA-500	3S-DMA-500	4S-DMA-500	5S-DMA-500
0-750	.066	1S-DMA-750	2S-DMA-750	3S-DMA-750	4S-DMA-750	5S-DMA-750

Meter Size		1½"	2½"	3½"	4½"	5½"
Range	Resistance (ohms)	Catalog #	Catalog #	Catalog #	Catalog #	Catalog #
DC MILLIAMMETERS – Taut band, moving coil: Zero left, high torque, ruggedized movements						
0-1	135	T1S-DMA-001	T2S-DMA-001	T3S-DMA-001	T4S-DMA-001	T5S-DMA-001
0-2	33	T1S-DMA-002	T2S-DMA-002	T3S-DMA-002	T4S-DMA-002	T5S-DMA-002
0-3	18	T1S-DMA-003	T2S-DMA-003	T3S-DMA-003	T4S-DMA-003	T5S-DMA-003
0-5	7	T1S-DMA-005	T2S-DMA-005	T3S-DMA-005	T4S-DMA-005	T5S-DMA-005
0-10	3	T1S-DMA-010	T2S-DMA-010	T3S-DMA-010	T4S-DMA-010	T5S-DMA-010

DC MILLIAMMETERS – Taut band, moving coil: Zero left, very high torque, ruggedized movements

0-1	450	HT1S-DMA-001	HT2S-DMA-001	HT3S-DMA-001	HT4S-DMA-001	HT5S-DMA-001
0-2	100	HT1S-DMA-002	HT2S-DMA-002	HT3S-DMA-002	HT4S-DMA-002	HT5S-DMA-002
0-5	35	HT1S-DMA-005	HT2S-DMA-005	HT3S-DMA-005	HT4S-DMA-005	HT5S-DMA-005
DC MILLIAMMETERS – Taut band, moving coil: Zero center						
1-0-1	35.0	1S-DMA-1U1	2S-DMA-1U1	3S-DMA-1U1	4S-DMA-1U1	5S-DMA-1U1
5-0-5	3.5	1S-DMA-5U5	2S-DMA-5U5	3S-DMA-5U5	4S-DMA-5U5	5S-DMA-5U5
10-0-10	2.2	1S-DMA-10U10	2S-DMA-10U10	3S-DMA-10U10	4S-DMA-10U10	5S-DMA-10U10
25-0-25	2.0	1S-DMA-25U25	2S-DMA-25U25	3S-DMA-25U25	4S-DMA-25U25	5S-DMA-25U25
50-0-50	1.0	1S-DMA-50U50	2S-DMA-50U50	3S-DMA-50U50	4S-DMA-50U50	5S-DMA-50U50
100-0-100	.50	1S-DMA-1H1	2S-DMA-1H1	3S-DMA-1H1	4S-DMA-1H1	5S-DMA-1H1
200-0-200	.25	1S-DMA-2H2	2S-DMA-2H2	3S-DMA-2H2	4S-DMA-2H2	5S-DMA-2H2
500-0-500	.10	1S-DMA-5H5	2S-DMA-5H5	3S-DMA-5H5	4S-DMA-5H5	5S-DMA-5H5
DC MILLIAMMETERS – Taut band, moving coil: Zero center, high torque, ruggedized movements						
1-0-1	145	T1S-DMA-1U1	T2S-DMA-1U1	T3S-DMA-1U1	T4S-DMA-1U1	T5S-DMA-1U1
DC MILLIAMMETERS – Taut band, moving coil: Suppressed zero (indicating receiving gauge applications)						
0.25-1.25	35	N1S-DMA-00125	N2S-DMA-00125	N3S-DMA-00125	N4S-DMA-00125	N5S-DMA-00125
1-5	5	N1S-DMA-005	N2S-DMA-005	N3S-DMA-005	N4S-DMA-005	N5S-DMA-005
4-20	6.6	N1S-DMA-020	N2S-DMA-020	N3S-DMA-020	N4S-DMA-020	N5S-DMA-020
10-50	2.0	N1S-DMA-050	N2S-DMA-050	N3S-DMA-050	N4S-DMA-050	N5S-DMA-050
DC AMMETERS – Taut band, moving coil: Zero left, self-contained						
0-1	.050	1S-DAA-001	2S-DAA-001	3S-DAA-001	4S-DAA-001	5S-DAA-001
0-1.5	.033	1S-DAA-001.5	2S-DAA-001.5	3S-DAA-001.5	4S-DAA-001.5	5S-DAA-001.5
0-2	.025	1S-DAA-002	2S-DAA-002	3S-DAA-002	4S-DAA-002	5S-DAA-002
0-3	.0166	1S-DAA-003	2S-DAA-003	3S-DAA-003	4S-DAA-003	5S-DAA-003
0-5	.010	1S-DAA-005	2S-DAA-005	3S-DAA-005	4S-DAA-005	5S-DAA-005
0-10	.0050	1S-DAA-010	2S-DAA-010	3S-DAA-010	4S-DAA-010	5S-DAA-010
0-15	.0033		2S-DAA-015	3S-DAA-015	4S-DAA-015	5S-DAA-015
0-20	.0025		2S-DAA-020	3S-DAA-020	4S-DAA-020	5S-DAA-020
0-25	.0020		2S-DAA-025	3S-DAA-025	4S-DAA-025	5S-DAA-025
0-30	.0015		2S-DAA-030	3S-DAA-030	4S-DAA-030	5S-DAA-030
0-50	.0010		2S-DAA-050	3S-DAA-050	4S-DAA-050	5S-DAA-050
DC AMMETERS – Taut band, moving coil: Zero left, 50mV, shunt rated						
0-15	10	1SS-DAA-015				
0-20	10	1SS-DAA-020				
0-25	10	1SS-DAA-025				
0-30	10	1SS-DAA-030				
0-50	10	1SS-DAA-050				
0-75	10	1SS-DAA-075	2SS-DAA-075	3SS-DAA-075	4SS-DAA-075	5SS-DAA-075
0-100	10	1SS-DAA-100	2SS-DAA-100	3SS-DAA-100	4SS-DAA-100	5SS-DAA-100
0-150	10	1SS-DAA-150	2SS-DAA-150	3SS-DAA-150	4SS-DAA-150	5SS-DAA-150
0-200	10	1SS-DAA-200	2SS-DAA-200	3SS-DAA-200	4SS-DAA-200	5SS-DAA-200
0-300	10	1SS-DAA-300	2SS-DAA-300	3SS-DAA-300	4SS-DAA-300	5SS-DAA-300
0-500	10	1SS-DAA-500	2SS-DAA-500	3SS-DAA-500	4SS-DAA-500	5SS-DAA-500
0-750	10	1SS-DAA-750	2SS-DAA-750	3SS-DAA-750	4SS-DAA-750	5SS-DAA-750
0-1000	10	1SS-DAA-1000	2SS-DAA-1000	3SS-DAA-1000	4SS-DAA-1000	5SS-DAA-1000
0-1200	10	1SS-DAA-1200	2SS-DAA-1200	3SS-DAA-1200	4SS-DAA-1200	5SS-DAA-1200
0-1500	10	1SS-DAA-1500	2SS-DAA-1500	3SS-DAA-1500	4SS-DAA-1500	5SS-DAA-1500
0-2000	10	1SS-DAA-2000	2SS-DAA-2000	3SS-DAA-2000	4SS-DAA-2000	5SS-DAA-2000

DC AMMETERS – Taut band, moving coil: Zero left, 100mV, shunt rated

0-75	20	E1SDAA-075	E2SDAA-075	E3SDAA-075	E4SDAA-075	E5SDAA-075
0-100	20	E1SDAA-100	E2SDAA-100	E3SDAA-100	E4SDAA-100	E5SDAA-100
0-150	20	E1SDAA-150	E2SDAA-150	E3SDAA-150	E4SDAA-150	E5SDAA-150
0-200	20	E1SDAA-200	E2SDAA-200	E3SDAA-200	E4SDAA-200	E5SDAA-200
0-300	20	E1SDAA-300	E2SDAA-300	E3SDAA-300	E4SDAA-300	E5SDAA-300
0-500	20	E1SDAA-500	E2SDAA-500	E3SDAA-500	E4SDAA-500	E5SDAA-500
0-750	20	E1SDAA-750	E2SDAA-750	E3SDAA-750	E4SDAA-750	E5SDAA-750
0-1000	20	E1SDAA-1000	E2SDAA-1000	E3SDAA-1000	E4SDAA-1000	E5SDAA-1000
0-1200	20	E1SDAA-1200	E2SDAA-1200	E3SDAA-1200	E4SDAA-1200	E5SDAA-1200
0-1500	20	E1SDAA-1500	E2SDAA-1500	E3SDAA-1500	E4SDAA-1500	E5SDAA-1500
0-2000	20	E1SDAA-2000	E2SDAA-2000	E3SDAA-2000	E4SDAA-2000	E5SDAA-2000

DC AMMETERS – Taut band, moving coil: Zero center, self-contained

1-0-1	.050	1SDAA-1U1	2SDAA-1U1	3SDAA-1U1	4SDAA-1U1	5SDAA-1U1
3-0-3	.016	1SDAA-3U3	2SDAA-3U3	3SDAA-3U3	4SDAA-3U3	5SDAA-3U3
5-0-5	.010	1SDAA-5U5	2SDAA-5U5	3SDAA-5U5	4SDAA-5U5	5SDAA-5U5
10-0-10	.005	1SDAA-10U10	2SDAA-10U10	3SDAA-10U10	4SDAA-10U10	5SDAA-10U10
15-0-15	.003		2SDAA-15U15	3SDAA-15U15	4SDAA-15U15	5SDAA-15U15
25-0-25	.002		2SDAA-25U25	3SDAA-25U25	4SDAA-25U25	5SDAA-25U25
50-0-50	.001		2SDAA-50U50	3SDAA-50U50	4SDAA-50U50	5SDAA-50U50

DC AMMETERS – Taut band, moving coil: Zero center, 50mV, shunt rated

15-0-15	10	1SS-DAA-15U15				
25-0-25	10	1SS-DAA-25U25				
50-0-50	10	1SS-DAA-50U50				
75-0-75	10	1SS-DAA-75U75	2SS-DAA-75U75	3SS-DAA-75U75	4SS-DAA-75U75	5SS-DAA-75U75
100-0-100	10	1SS-DAA-1H1	2SS-DAA-1H1	3SS-DAA-1H1	4SS-DAA-1H1	5SS-DAA-1H1
200-0-200	10	1SS-DAA-2H2	2SS-DAA-2H2	3SS-DAA-2H2	4SS-DAA-2H2	5SS-DAA-2H2
300-0-300	10	1SS-DAA-3H3	2SS-DAA-3H3	3SS-DAA-3H3	4SS-DAA-3H3	5SS-DAA-3H3
400-0-400	10	1SS-DAA-4H4	2SS-DAA-4H4	3SS-DAA-4H4	4SS-DAA-4H4	5SS-DAA-4H4
500-0-500	10	1SS-DAA-5H5	2SS-DAA-5H5	3SS-DAA-5H5	4SS-DAA-5H5	5SS-DAA-5H5

DC MILLIVOLTMETERS – Taut band, moving coil: Zero left

0-50	10Ω	1SDMV-050	2SDMV-050	3SDMV-050	4SDMV-050	5SDMV-050
0-100	20Ω	1SDMV-100	2SDMV-100	3SDMV-100	4SDMV-100	5SDMV-100

DC MILLIVOLTMETERS – Taut band, moving coil: Zero center

50-0-50	10Ω	1SDMV-50U50	2SDMV-50U50	3SDMV-50U50	4SDMV-50U50	5SDMV-50U50
100-0-100	20Ω	1SDMV-1H1	2SDMV-1H1	3SDMV-1H1	4SDMV-1H1	5SDMV-1H1

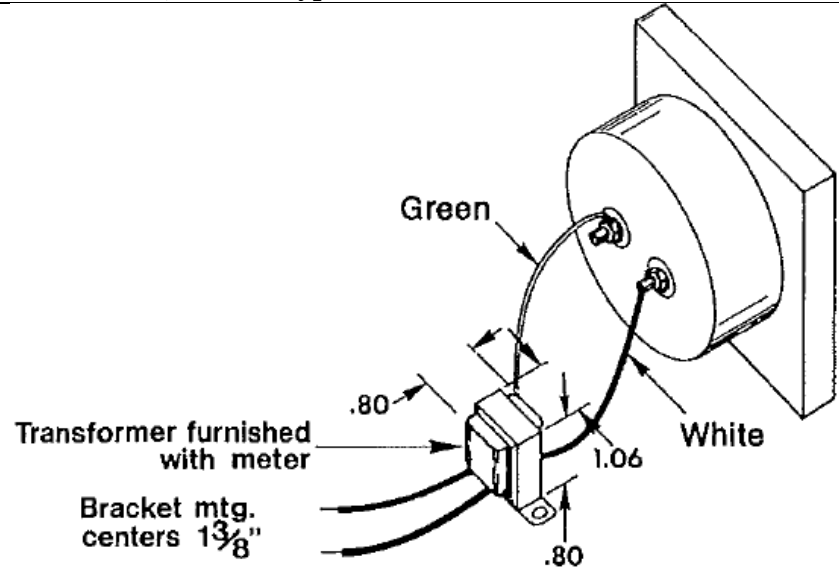
DC VOLTMETERS – Taut band, moving coil: Zero left

0-1	1000Ω/V	1SDVV-001	2SDVV-001	3SDVV-001	4SDVV-001	5SDVV-001
0-1.5	1000Ω/V	1SDVV-0015	2SDVV-0015	3SDVV-0015	4SDVV-0015	5SDVV-0015
0-2	1000Ω/V	1SDVV-002	2SDVV-002	3SDVV-002	4SDVV-002	5SDVV-002
0-3	1000Ω/V	1SDVV-003	2SDVV-003	3SDVV-003	4SDVV-003	5SDVV-003
0-5	1000Ω/V	1SDVV-005	2SDVV-005	3SDVV-005	4SDVV-005	5SDVV-005
0-10	1000Ω/V	1SDVV-010	2SDVV-010	3SDVV-010	4SDVV-010	5SDVV-010
0-15	1000Ω/V	1SDVV-015	2SDVV-015	3SDVV-015	4SDVV-015	5SDVV-015
0-20	1000Ω/V	1SDVV-020	2SDVV-020	3SDVV-020	4SDVV-020	5SDVV-020
0-25	1000Ω/V	1SDVV-025	2SDVV-025	3SDVV-025	4SDVV-025	5SDVV-025
0-30	1000Ω/V	1SDVV-030	2SDVV-030	3SDVV-030	4SDVV-030	5SDVV-030
0-40	1000Ω/V	1SDVV-040	2SDVV-040	3SDVV-040	4SDVV-040	5SDVV-040
0-50	1000Ω/V	1SDVV-050	2SDVV-050	3SDVV-050	4SDVV-050	5SDVV-050
0-75	1000Ω/V	1SDVV-075	2SDVV-075	3SDVV-075	4SDVV-075	5SDVV-075
0-80	1000Ω/V	1SDVV-080	2SDVV-080	3SDVV-080	4SDVV-080	5SDVV-080
0-100	1000Ω/V	1SDVV-100	2SDVV-100	3SDVV-100	4SDVV-100	5SDVV-100
0-150	1000Ω/V	1SDVV-150	2SDVV-150	3SDVV-150	4SDVV-150	5SDVV-150
0-200	1000Ω/V	1SDVV-200	2SDVV-200	3SDVV-200	4SDVV-200	5SDVV-200
0-250	1000Ω/V	1SDVV-250	2SDVV-250	3SDVV-250	4SDVV-250	5SDVV-250
0-300	1000Ω/V	1SDVV-300	2SDVV-300	3SDVV-300	4SDVV-300	5SDVV-300
0-500	1000Ω/V	1SDVV-500	2SDVV-500	3SDVV-500	4SDVV-500	5SDVV-500
0-600	10KΩ/V	1SDVV-600	2SDVV-600	3SDVV-600	4SDVV-600	5SDVV-600
0-750	10KΩ/V	1SDVV-750	2SDVV-750	3SDVV-750	4SDVV-750	5SDVV-750

0-1000	10KΩ/V	1SDVV-1000	2SDVV-1000	3SDVV-1000	4SDVV-1000	5SDVV-1000
DC VOLTMETERS – Taut band, moving coil: Zero center						
5-0-5	1000Ω/V	1SDVV-5U5	2SDVV-5U5	3SDVV-5U5	4SDVV-5U5	5SDVV-5U5
10-0-10	1000Ω/V	1SDVV-10U10	2SDVV-10U10	3SDVV-10U10	4SDVV-10U10	5SDVV-10U10
15-0-15	1000Ω/V	1SDVV-15U15	2SDVV-15U15	3SDVV-15U15	4SDVV-15U15	5SDVV-15U15
25-0-25	1000Ω/V	1SDVV-25U25	2SDVV-25U25	3SDVV-25U25	4SDVV-25U25	5SDVV-25U25
50-0-50	1000Ω/V	1SDVV-50U50	2SDVV-50U50	3SDVV-50U50	4SDVV-50U50	5SDVV-50U50
100-0-100	1000Ω/V	1SDVV-1H1	2SDVV-1H1	3SDVV-1H1	4SDVV-1H1	5SDVV-1H1
150-0-150	1000Ω/V	1SDVV-1.5H1.5	2SDVV-1.5H1.5	3SDVV-1.5H1.5	4SDVV-1.5H1.5	5SDVV-1.5H1.5
300-0-300	1000Ω/V	1SDVV-3H3	2SDVV-3H3	3SDVV-3H3	4SDVV-3H3	5SDVV-3H3
500-0-500	1000Ω/V	1SDVV-5H5	2SDVV-5H5	3SDVV-5H5	4SDVV-5H5	5SDVV-5H5
600-0-600	10KΩ/V	1SDVV-6H6	2SDVV-6H6	3SDVV-6H6	4SDVV-6H6	5SDVV-6H6
DC VOLTMETERS – Taut band, moving coil: Zero left & zero center, high torque, ruggedized movements						
All DC voltmeters are also available in high torque versions with identical range and terminal resistance. To order add the prefix letter “T” to the model number.						
AC MILLIAMMETERS – Taut band, moving coil: Self-contained, rectifier type						
0-1	1110	1SAMA-001	2SAMA-001	3SAMA-001	4SAMA-001	5SAMA-001
0-5	260	1SAMA-005	2SAMA-005	3SAMA-005	4SAMA-005	5SAMA-005
0-10	140	1SAMA-010	2SAMA-010	3SAMA-010	4SAMA-010	5SAMA-010
0-25	90.0	1SAMA-025	2SAMA-025	3SAMA-025	4SAMA-025	5SAMA-025
0-50	45.0	1SAMA-050	2SAMA-050	3SAMA-050	4SAMA-050	5SAMA-050
0-100	6.0	1SAMA-100	2SAMA-100	3SAMA-100	4SAMA-100	5SAMA-100
0-200	1.5		2SAMA-200	3SAMA-200	4SAMA-200	5SAMA-200
0-500	0.4		2SAMA-500	3SAMA-500	4SAMA-500	5SAMA-500
AC MILLIAMMETERS – Iron Vane: Self-contained, 60 Hz nominal input (50-400Hz range)* 2” Barrell Standard						
0-10	2600		2SAMC-010	3SAMC-010	4SAMC-010	
0-25	430		2SAMC-025	3SAMC-025	4SAMC-025	
0-50	105		2SAMC-050	3SAMC-050	4SAMC-050	
0-100	27		2SAMC-100	3SAMC-100	4SAMC-100	
0-250	4.3		2SAMC-250	3SAMC-250	4SAMC-250	
0-500	1.1		2SAMC-500	3SAMC-500	4SAMC-500	
AC AMMETERS – Taut band, moving coil: Self-contained, rectifier type						
0-1	.07		2SAAA-001	3SAAA-001	4SAAA-001	5SAAA-001
0-1.5	.05		2SAAA-0015	3SAAA-0015	4SAAA-0015	5SAAA-0015
0-2	.04		2SAAA-002	3SAAA-002	4SAAA-002	5SAAA-002
0-3	.025		2SAAA-003	3SAAA-003	4SAAA-003	5SAAA-003
0-5	.015		2SAAA-005	3SAAA-005	4SAAA-005	5SAAA-005
0-10	.0075		2SAAA-010	3SAAA-010	4SAAA-010	5SAAA-010
0-15	.005		2SAAA-015	3SAAA-015	4SAAA-015	5SAAA-015
0-20	.004		2SAAA-020	3SAAA-020	4SAAA-020	5SAAA-020
0-25	.0037		2SAAA-025	3SAAA-025	4SAAA-025	5SAAA-025
0-30	.0025		2SAAA-030	3SAAA-030	4SAAA-030	5SAAA-030
0-50	.0015		2SAAA-050	3SAAA-050	4SAAA-050	5SAAA-050
AC AMMETERS – Taut band, moving coil: Transformer rated, 0-5A, rectifier type						
0-60	.015		2SAAAX-060	3SAAAX-060	4SAAAX-060	5SAAAX-060
0-75	.015		2SAAAX-075	3SAAAX-075	4SAAAX-075	5SAAAX-075
0-100	.015		2SAAAX-100	3SAAAX-100	4SAAAX-100	5SAAAX-100
0-150	.015		2SAAAX-150	3SAAAX-150	4SAAAX-150	5SAAAX-150
0-200	.015		2SAAAX-200	3SAAAX-200	4SAAAX-200	5SAAAX-200
0-300	.015		2SAAAX-300	3SAAAX-300	4SAAAX-300	5SAAAX-300
0-400	.015		2SAAAX-400	3SAAAX-400	4SAAAX-400	5SAAAX-400
0-500	.015		2SAAAX-500	3SAAAX-500	4SAAAX-500	5SAAAX-500
0-600	.015		2SAAAX-600	3SAAAX-600	4SAAAX-600	5SAAAX-600
0-800	.015		2SAAAX-800	3SAAAX-800	4SAAAX-800	5SAAAX-800
0-1000	.015		2SAAAX-1000	3SAAAX-1000	4SAAAX-1000	5SAAAX-1000
0-1500	.015		2SAAAX-1500	3SAAAX-1500	4SAAAX-1500	5SAAAX-1500
0-2000	.015		2SAAAX-2000	3SAAAX-2000	4SAAAX-2000	5SAAAX-2000

AC AMMETERS – Taut band, moving coil: Separate transformer, rectifier type

0-1	.07	1SAAAX-001
0-1.5	.05	1SAAAX-0015
0-2	.04	1SAAAX-002
0-3	.025	1SAAAX-003
0-5	.015	1SAAAX-005
0-10	.0075	1SAAAX-010
0-15	.005	1SAAAX-015
0-20	.004	1SAAAX-020
0-25	.0037	1SAAAX-025
0-30	.0025	1SAAAX-030
0-50	.0015	1SAAAX-050
0-60	.015	1SAAAX-060
0-75	.015	1SAAAX-075
0-100	.015	1SAAAX-100
0-150	.015	1SAAAX-150
0-200	.015	1SAAAX-200
0-300	.015	1SAAAX-300
0-400	.015	1SAAAX-400
0-500	.015	1SAAAX-500
0-600	.015	1SAAAX-600
0-800	.015	1SAAAX-800
0-1000	.015	1SAAAX-1000
0-1500	.015	1SAAAX-1500
0-2000	.015	1SAAAX-2000



*5 Ampere meter with scale as indicated requires an external current transformer (not furnished)

AC MILLIAMMETERS & AC AMMETERS – Taut band, moving coil: High torque, ruggedized movements

All AC milliammeters and AC Ammeters are also available in high torque versions with identical range and terminal resistance. To order, add the prefix letter "T" to the model number.

AC AMMETERS – Iron vane: Self-contained, 60Hz nominal input (50-400Hz range) *2" Barrell Standard

0-1	0.26	2SAAC-001	3SAAC-001	4SAAC-001
0-1.5	0.12	2SAAC-0015	3SAAC-0015	4SAAC-0015
0-2	0.07	2SAAC-002	3SAAC-002	4SAAC-002
0-3	0.048	2SAAC-003	3SAAC-003	4SAAC-003
0-5	0.022	2SAAC-005	3SAAC-005	4SAAC-005
0-10	0.005	2SAAC-010	3SAAC-010	4SAAC-010
0-15	0.003	2SAAC-015	3SAAC-015	4SAAC-015
0-20	0.002	2SAAC-020	3SAAC-020	4SAAC-020
0-25	0.002	2SAAC-025	3SAAC-025	4SAAC-025
0-30	0.0015	2SAAC-030	3SAAC-030	4SAAC-030
0-50	0.001	2SAAC-050	3SAAC-050	4SAAC-050

AC AMMETERS – Iron vane: Transformer rated, 0-5A, 60Hz nominal input (50-400Hz range) *2" Barrell Standard

0-60	0.022	2SAACX-060	3SAACX-060	4SAACX-060
0-75	0.022	2SAACX-075	3SAACX-075	4SAACX-075
0-100	0.022	2SAACX-100	3SAACX-100	4SAACX-100
0-150	0.022	2SAACX-150	3SAACX-150	4SAACX-150
0-200	0.022	2SAACX-200	3SAACX-200	4SAACX-200
0-300	0.022	2SAACX-300	3SAACX-300	4SAACX-300
0-500	0.022	2SAACX-500	3SAACX-500	4SAACX-500
0-600	0.022	2SAACX-600	3SAACX-600	4SAACX-600
0-800	0.022	2SAACX-800	3SAACX-800	4SAACX-800
0-1000	0.022	2SAACX-1000	3SAACX-1000	4SAACX-1000
0-1500	0.022	2SAACX-1500	3SAACX-1500	4SAACX-1500
0-2000	0.022	2SAACX-2000	3SAACX-2000	4SAACX-2000

*0-5A AC ammeter with scales as indicated, for use with external current transformers.

AC VOLTMETERS – Taut band, moving coil: Self-contained, rectifier type

0-3	900Ω/V	1S-AVV-003	2S-AVV-003	3S-AVV-003	4S-AVV-003	5S-AVV-003
0-5	900Ω/V	1S-AVV-005	2S-AVV-005	3S-AVV-005	4S-AVV-005	5S-AVV-005
0-10	900Ω/V	1S-AVV-010	2S-AVV-010	3S-AVV-010	4S-AVV-010	5S-AVV-010
0-15	900Ω/V	1S-AVV-015	2S-AVV-015	3S-AVV-015	4S-AVV-015	5S-AVV-015
0-25	900Ω/V	1S-AVV-025	2S-AVV-025	3S-AVV-025	4S-AVV-025	5S-AVV-025

0-50	900Ω/V	1S-AVV-050	2S-AVV-050	3S-AVV-050	4S-AVV-050	5S-AVV-050
0-100	900Ω/V	1S-AVV-100	2S-AVV-100	3S-AVV-100	4S-AVV-100	5S-AVV-100
0-150	900Ω/V	1S-AVV-150	2S-AVV-150	3S-AVV-150	4S-AVV-150	5S-AVV-150
0-300	900Ω/V	1S-AVV-300	2S-AVV-300	3S-AVV-300	4S-AVV-300	5S-AVV-300
0-500	900Ω/V	1S-AVV-500	2S-AVV-500	3S-AVV-500	4S-AVV-500	5S-AVV-500
0-600	900Ω/V	1S-AVV-600	2S-AVV-600	3S-AVV-600	4S-AVV-600	5S-AVV-600

AC VOLTMETERS – Taut band, moving coil: Transformer rated, 0-150V, rectifier type*

0-750		1S-AVVX-750	2S-AVVX-750	3S-AVVX-750	4S-AVVX-750	5S-AVVX-750
0-1500		1S-AVVX-1500	2S-AVVX-1500	3S-AVVX-1500	4S-AVVX-1500	5S-AVVX-1500
0-3000		1S-AVVX-3000	2S-AVVX-3000	3S-AVVX-3000	4S-AVVX-3000	5S-AVVX-3000

AC VOLTMETERS – Taut band, moving coil: High torque ruggedized movements

All AC voltmeters are also available in high torque versions with identical range and terminal resistance. To order, add the prefix “T”.

AC VOLTMETERS – Iron vane: Self-contained, 60Hz nominal input (50Hz with slightly reduced accuracy) *2” Barrell Standard

0-3	11.1		2S-AVC-003	3S-AVC-003	4S-AVC-003	
0-5	25		2S-AVC-005	3S-AVC-005	4S-AVC-005	
0-10	100		2S-AVC-010	3S-AVC-010	4S-AVC-010	
0-15	225		2S-AVC-015	3S-AVC-015	4S-AVC-015	
0-30	900		2S-AVC-030	3S-AVC-030	4S-AVC-030	
0-50	3K		2S-AVC-050	3S-AVC-050	4S-AVC-050	
0-100	12K		2S-AVC-100	3S-AVC-100	4S-AVC-100	
0-150	30K		2S-AVC-150	3S-AVC-150	4S-AVC-150	
0-300	90K		2S-AVC-300	3S-AVC-300	4S-AVC-300	
0-500	150K		2S-AVC-500	3S-AVC-500	4S-AVC-500	
0-600	175K		2S-AVC-600	3S-AVC-600	4S-AVC-600	

AC VOLTMETERS – Iron vane: Transformer rated, 0-150V, 60Hz nominal input *2” Barrell Standard

0-600	30K		2S-AVCX-600	3S-AVCX-600	4S-AVCX-600	
0-750	30K		2S-AVCX-750	3S-AVCX-750	4S-AVCX-750	
0-1500	30K		2S-AVCX-1500	3S-AVCX-1500	4S-AVCX-1500	
0-3000	30K		2S-AVCX-3000	3S-AVCX-3000	4S-AVCX-3000	

FREQUENCY METERS – Pointer Type Electronic

Freq. Range	Input V	Accuracy				
45-65	120 VAC	±.6Hz	2S-FRQ-55/120-20	3S-FRQ-55/120-20	4S-FRQ-55/120-20	
45-55	120 VAC	±.3Hz	2S-FRQ-50/120-10	3S-FRQ-50/120-10	4S-FRQ-50/120-10	
55-65	120 VAC	±.3Hz	2S-FRQ-60/120-10	3S-FRQ-60/120-10	4S-FRQ-60/120-10	
380-420	120 VAC	±1.2Hz	2S-FRQ-400/120-40	3S-FRQ-400/120-40	4S-FRQ-400/120-40	
45-55	230 VAC	±.3Hz	2S-FRQ-50/230-10	3S-FRQ-50/230-10	4S-FRQ-50/230-10	
55-65	230 VAC	±.3Hz	2S-FRQ-60/230-10	3S-FRQ-60/230-10	4S-FRQ-60/230-10	
380-420	230 VAC	±1.2Hz	2S-FRQ-400/230-40	3S-FRQ-400/230-40	4S-FRQ-400/230-40	

VU METERS – Taut band, moving coil: Per USA Standard C-16.5 - 1954

VU Meters are supplied with either of the scales shown at the right. Scale A is normally used in recording, Scale B in broadcasting. USA Standard VU Meters are designed to measure specific VU quantities, and read zero VU (or 100%) with 1.228 volts applied to the meter with 3600Ω series impedance. This represents 4 dB above 1 mW in 600Ω. Their impedance is 3900Ω ±10% at zero VU. VU Type DC Microammeters are designed as VU indicators, where the application does not require sophisticated measurements but where VU type indications are required. Resistance is 1900Ω.

Type Scale	Dial Color					
A	Buff	1S-AVU-000-AB	2S-AVU-000-AB	3S-AVU-000-AB	4S-AVU-000-AB	<p>VU Scale “A”</p> <p>VU Scale “B”</p>
B	Buff	1S-AVU-000-BB	2S-AVU-000-BB	3S-AVU-000-BB	4S-AVU-000-BB	
A	White	1S-AVU-000-AW	2S-AVU-000-AW	3S-AVU-000-AW	4S-AVU-000-AW	
B	White	1S-AVU-000-BW	2S-AVU-000-BW	3S-AVU-000-BW	4S-AVU-000-BW	

VU METERS – Taut band, moving coil: DC Microammeter type

A	Buff	1S-DVU-000-AB	2S-DVU-000-AB	3S-DVU-000-AB	4S-DVU-000-AB
B	Buff	1S-DVU-000-BB	2S-DVU-000-BB	3S-DVU-000-BB	4S-DVU-000-BB
A	White	1S-DVU-000-AW	2S-DVU-000-AW	3S-DVU-000-AW	4S-DVU-000-AW
B	White	1S-DVU-000-BW	2S-DVU-000-BW	3S-DVU-000-BW	4S-DVU-000-BW

PYROMETERS – Taut band, moving coil

Temp Range °F	Temp Range °C	Ext. Res. Ohms*	Thermo-couple Type**	1½"	2½"	3½"	4½"	5½"
				Catalog #	Catalog #	Catalog #	Catalog #	Catalog #
-100/+600	-70/+310	10	E	1S-PYR-E600	2S-PYR-E600	3S-PYR-E600	4S-PYR-E600	5S-PYR-E600
-100/+1100	-70/+600	10	E	1S-PYR-E1100	2S-PYR-E1100	3S-PYR-E1100	4S-PYR-E1100	5S-PYR-E1100
0/+300	-20/+150	5	J	1S-PYR-J300	2S-PYR-J300	3S-PYR-J300	4S-PYR-J300	5S-PYR-J300
0/+300	-20/+150	5	E	1S-PYR-E300	2S-PYR-E300	3S-PYR-E300	4S-PYR-E300	5S-PYR-E300
0/+500	-20/+260	10	J	1S-PYR-J500	2S-PYR-J500	3S-PYR-J500	4S-PYR-J500	5S-PYR-J500
0/+500	-20/+260	10	E	1S-PYR-E500	2S-PYR-E500	3S-PYR-E500	4S-PYR-E500	5S-PYR-E500
0/+800	-20/+430	10	J	1S-PYR-J800	2S-PYR-J800	3S-PYR-J800	4S-PYR-J800	5S-PYR-J800
0/+800	-20/+430	10	E	1S-PYR-E800	2S-PYR-E800	3S-PYR-E800	4S-PYR-E800	5S-PYR-E800
0/+1000	-20/+540	10	J	1S-PYR-E1000	2S-PYR-E1000	3S-PYR-E1000	4S-PYR-E1000	5S-PYR-E1000
0/+1000	-20/+540	10	E	1S-PYR-J1000	2S-PYR-J1000	3S-PYR-J1000	4S-PYR-J1000	5S-PYR-J1000
0/+1000	-20/+540	10	K	1S-PYR-K1000	2S-PYR-K1000	3S-PYR-K1000	4S-PYR-K1000	5S-PYR-K1000
0/+1500	-20/+820	10	E	1S-PYR-E1500	2S-PYR-E1500	3S-PYR-E1500	4S-PYR-E1500	5S-PYR-E1500
0/+1500	-20/+820	10	K	1S-PYR-K1500	2S-PYR-K1500	3S-PYR-K1500	4S-PYR-K1500	5S-PYR-K1500
0/+2000	-20/+1100	10	K	1S-PYR-K2000	2S-PYR-K2000	3S-PYR-K2000	4S-PYR-K2000	5S-PYR-K2000
0/+3000	-20/+1650	10	R	1S-PYR-R3000	2S-PYR-R3000	3S-PYR-R3000	4S-PYR-R3000	5S-PYR-R3000

*Must be matched, ±1/4 ohm, with external resistance of thermocouple. **J = iron/constantan, E = chromel/constantan, K = chromel/alumel, R = platinum/platinum – 13% thorium.