



# Tru-View Style Analog Panel Meters



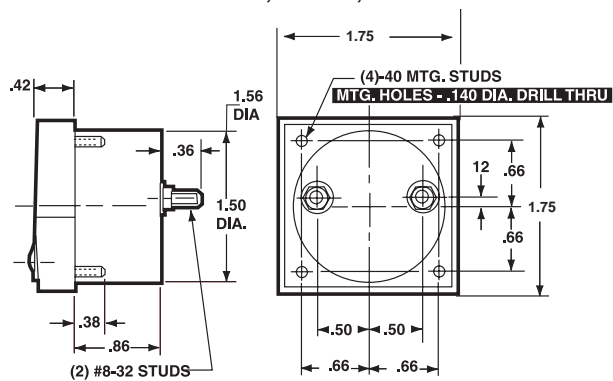
- Clear acrylic case updates panel design
- Black knife-edge pointer for precision reading
- Special colored scales or logos available

## Specifications

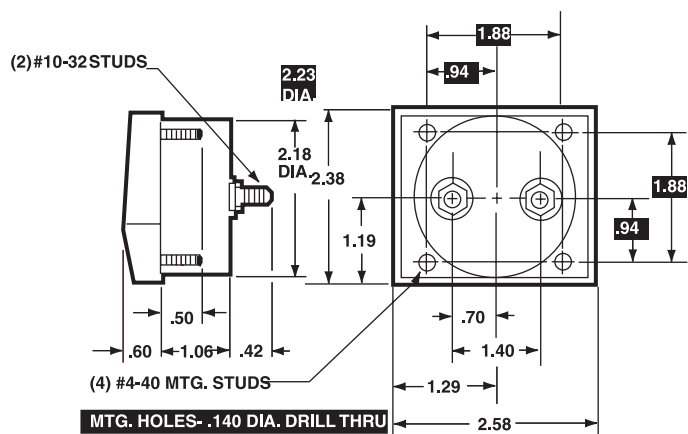
<b>Accuracy:</b>	±2% F.S. (iron vane), ±3% F.S. (rectifier)
<b>Movement:</b>	DC: Annular, self-shielding AC: Models 953 & 954: Iron-vane, magnetically damped others: Annular, rectified
<b>Suspension:</b>	Pivot and jewel or taut band
<b>Tracking:</b>	±3%
<b>Repeatability:</b>	2%, taut band: 0.5%
<b>Shielding:</b>	Calibration is unaffected by stray magnetic field or panel mounting.
<b>Response Time:</b>	1.5 seconds maximum above 10mA.
<b>Overload (1 sec.):</b>	10 times F.S.
<b>Overload (Continuous):</b>	1.5 times F.S.
<b>Dial:</b>	Sharp clear scale. Each dial arc is calibrated to track the specific type of movement used.
<b>Operating Temperature:</b>	-4°F to +149°F (-20°C to +65°C)
<b>Resistance:</b>	±15% of meter impedance
<b>Case:</b>	Clear plastic
<b>Pointer:</b>	Knife edge, black matte finish
<b>Scale Length:</b>	Models 921 & 941: 1.56" (39.62mm) Models 922 & 942: 2.40" (60.96mm) Model 953: 2.94" (74.68mm) Models 923 & 943: 3.27" (83.06mm) Model 954: 3.53" (89.66mm) Model 924: 3.92" (99.67mm)
<b>Net Weight:</b>	Models 921 & 941: 1.5oz (.04kg) Models 922 & 942: 4oz (.11kg) Models 923, 943 & 953: 6 oz (0.17kg) Models 924, 944 & 954: 8oz (0.23kg)

## Dimensions

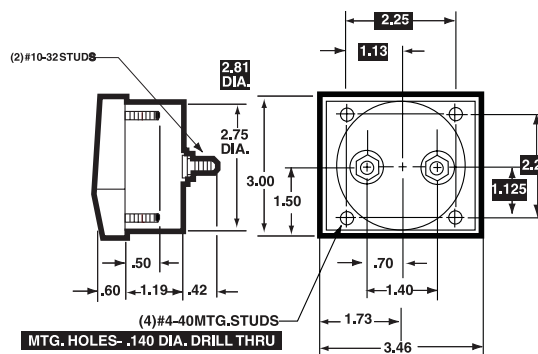
1-1/2"-Model 921, 921T, 941



2-1/2"-Model 922, 942

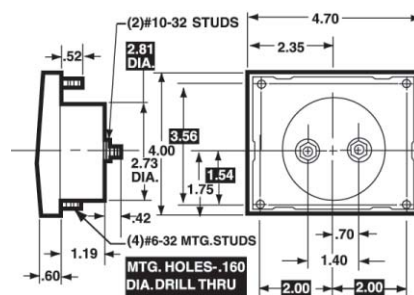


3-1/2"-Model 923, 923T, 943, 953



1 = Panel Meter Cut-out Dimensions

4 - 1/2"-Model 924, 924T, 944, 954



# Tru-View Style Analog Panel Meters



## Ordering Information

### AC Milliammeters, Iron Vane Movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number	
		3-1/2" Model 953	4-1/2" Model 954
0-10	1650	TV3AMA010	TV4AMA010
0-50	80	TV3AMA050	TV4AMA050
0-100	17.2	TV3AMA100	TV4AMA100
0-150	7.16	TV3AMA150	TV4AMA150
0-250	3.15	TV3AMA250	TV4AMA250
0-500	0.9	TV3AMA500	TV4AMA500

### AC Ammeters, Iron Vane Movement

Range	Approx. Impedance (ohms) @ 60 Hz	Model/Size and Catalog Number	
		3-1/2" Model 953	4-1/2" Model 954
0-1	0.213	TV3AAA001	TV4AAA001
0-1.5	0.105	TV3AAA1R5	TV4AAA1R5
0-2	0.065	TV3AAA002	TV4AAA002
0-3	0.028	TV3AAA003	TV4AAA003
0-5	0.008	TV3AAA005	TV4AAA005
0-10	0.004	TV3AAA010	TV4AAA010
0-15	0.0025	TV3AAA015	TV4AAA015
0-25	0.002	TV3AAA025	TV4AAA025
0-30	0.0015	TV3AAA030	TV4AAA030
0-50	0.001	TV3AAA050	TV4AAA050
0-75	0.008	TV3AAA075*	TV4AAA075*
0-100	0.008	TV3AAA100*	TV4AAA100*
0-150	0.008	TV3AAA150*	TV4AAA150*
0-200	0.008	TV3AAA200*	TV4AAA200*
0-300	0.008	TV3AAA300*	TV4AAA300*

\* These meters require use of a current transformer from pages C4-C6

### AC Voltmeters, Iron Vane Movement

Range	Approx. Impedance (ohms) @ 60 Hz	Model/Size and Catalog Number	
		3-1/2" Model 953	4-1/2" Model 954
0-5	33	TV3AVV005	TV4AVV005
0-10	133	TV3AVV010	TV4AVV010
0-15	300	TV3AVV015	TV4AVV015
0-25	833	TV3AVV025	TV4AVV025
0-50	3333	TV3AVV050	TV4AVV050
0-100	16666	TV3AVV100	TV4AVV100
0-150	25000	TV3AVV150	TV4AVV150
0-250	41166	TV3AVV250	TV4AVV250
0-300	50000	TV3AVV300	TV4AVV300
0-500	25000	TV3AVV500*	TV4AVV500*
0-1000	25000	TV3AVV1TH*	TV4AVV1TH*

\* AC Voltmeters with a range of 500V or higher require an external multiplier (model 183) from page C7

### AC Voltmeters, Rectified, Self-shielding Movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number				
		1-1/2" Model 941	2-1/2" Model 942	3-1/2" Model 943	4-1/2" Model 944	4" x 6" Model 926
0-5	2000 ohms per volt	TV1RVV001	TV2RVV005	TV3RVV005	TV4RVV005	TV64RVV005
0-10		TV1RVV005	TV2RVV010	TV3RVV010	TV4RVV010	TV64RVV010
0-15		TV1RVV010	TV2RVV015	TV3RVV015	TV4RVV015	TV64RVV015
0-20		TV1RVV020	TV2RVV020	TV3RVV020	TV4RVV020	TV64RVV020
0-25		TV1RVV025	TV2RVV025	TV3RVV025	TV4RVV025	TV64RVV025
0-50		TV1RVV050	TV2RVV050	TV3RVV050	TV4RVV050	TV64RVV050
0-100		TV1RVV100	TV2RVV100	TV3RVV100	TV4RVV100	TV64RVV100
0-150		TV1RVV150	TV2RVV150	TV3RVV150	TV4RVV150	TV64RVV150
0-200		TV1RVV200	TV2RVV200	TV3RVV200	TV4RVV200	TV64RVV200
0-250		TV1RVV250	TV2RVV250	TV3RVV250	TV4RVV250	TV64RVV250
0-300		TV1RVV300	TV2RVV300	TV3RVV300	TV4RVV300	TV64RVV300

### DC Microammeters, Self-shielding movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number				
		1-1/2" Model 921	2-1/2" Model 922	3-1/2" Model 923	4-1/2" Model 924	4" X 6" Model 926
0-50	1800 (5500)*	TV1DUA050	TV2DUA050	TV3DUA050	TV4DUA050	< >
0-100	1800	TV1DUA100	TV2DUA100	TV3DUA100	TV4DUA100	TV6DUA100
0-200	1100	TV1DUA200	TV2DUA200	TV3DUA200	TV4DUA200	TV6DUA200
0-500	90 (190)*	TV1DUA500	TV2DUA500	TV3DUA500	TV4DUA500	TV6DUA500
100-0-100	1100	TV1DUA1H1	TV2DUA1H1	TV3DUA1H1	TV4DUA1H1	TV6DUA1H1
500-0-500	43	TV1DUA5H5	TV2DUA5H5	TV3DUA5H5	TV4DUA5H5	TV6DUA5H5

\* Resistance for 1/2" sizes shown in ( ).

< > available on special order

### DC Taut-Band Microammeters, Self-shielding movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number				
		1-1/2" Model 921T	2-1/2" Model 922T	3-1/2" Model 923T	4-1/2" Model 924T	4" X 6" Model 926T
0-10	4900	-	TV2TUA010	TV3TUA010	TV4TUA010	< >
0-15	1960	-	TV2TUA015	TV3TUA015	TV4TUA015	< >
0-25	1960	-	TV2TUA025	TV3TUA025	TV4TUA025	< >
0-50	960	TV1TUA050	TV2TUA050	TV3TUA050	TV4TUA050	< >
0-100	500	TV1TUA100	TV2TUA100	TV3TUA100	TV4TUA100	TV6TUA100
0-200	234	TV1TUA200	TV2TUA200	TV3TUA200	TV4TUA200	TV6TUA200

< > available on special order

### DC Milliammeters, Self-shielding movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number				
		1-1/2" Model 921	2-1/2" Model 922	3-1/2" Model 923	4-1/2" Model 924	4" X 6" Model 926
0-1	43	TV1DMA001	TV2DMA001	TV3DMA001	TV4DMA001	TV6 DMA001
0-3	2.0	TV1DMA003	TV2DMA003	TV3DMA003	TV4DMA003	TV6 DMA003
0-5	2.0 (20)*	TV1DMA005	TV2DMA005	TV3DMA005	TV4DMA005	TV6 DMA005
0-10	10.0 (2.2)*	TV1DMA010	TV2DMA010	TV3DMA010	TV4DMA010	TV6 DMA010
0-15	6.6 (2.2)*	TV1DMA015	TV2DMA015	TV3DMA015	TV4DMA015	TV6 DMA015
0-20	5.0	TV1DMA020	TV2DMA020	TV3DMA020	TV4DMA020	TV6 DMA020
0-25	4.0 (6.0)*	TV1DMA025	TV2DMA025	TV3DMA025	TV4DMA025	TV6 DMA025
0-50	2.0 (3.0)*	TV1DMA050	TV2DMA050	TV3DMA050	TV4DMA050	TV6 DMA050
0-100	1.0 (1.5)*	TV1DMA100	TV2DMA100	TV3DMA100	TV4DMA100	TV6 DMA100
0-150	0.66 (1.0)*	TV1DMA150	TV2DMA150	TV3DMA150	TV4DMA150	TV6 DMA150
0-200	0.50 (.75)*	TV1DMA200	TV2DMA200	TV3DMA200	TV4DMA200	TV6 DMA200
0-250	0.40 (.60)*	TV1DMA250	TV2DMA250	TV3DMA250	TV4DMA250	TV6 DMA250
0-300	0.33 (.50)*	TV1DMA300	TV2DMA300	TV3DMA300	TV4DMA300	TV6 DMA300
0-500	0.20 (.30)*	TV1DMA500	TV2DMA500	TV3DMA500	TV4DMA500	TV6 DMA500
0-750	0.13	TV1DMA750	TV2DMA750	TV3DMA750	TV4DMA750	TV6 DMA750

\*Resistance for 1-1/2" sizes shown in ( )





# Tru-View Style Analog Panel Meters

## Ordering Information

### DC Ammeters, Self-shielding movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number				
		1-1/2" Model 921	2-1/2" Model 922	3-1/2" Model 923	4-1/2" Model 924	4"x6" Model 926
0-1	0.050	TV1DAA001	TV2DAA001	TV3DAA001	TV4DAA001	TV6DAA001
0-2	0.025	TV1DAA002	TV2DAA002	TV3DAA002	TV4DAA002	TV6DAA002
0-3	0.0166	TV1DAA003	TV2DAA003	TV3DAA003	TV4DAA003	TV6DAA003
0-5	0.010	TV1DAA005	TV2DAA005	TV3DAA005	TV4DAA005	TV6DAA005
0-10	0.005	TV1DAA010	TV2DAA010	TV3DAA010	TV4DAA010	TV6DAA010
0-15	0.0033*	TV1DAA015*	TV2DAA015	TV3DAA015	TV4DAA015	TV6DAA015
0-20	0.0025*	TV1DAA020*	TV2DAA020	TV3DAA020	TV4DAA020	TV6DAA020
0-25	0.0020*	TV1DAA025*	TV2DAA025	TV3DAA025	TV4DAA025	TV6DAA025
0-30	0.0017*	TV1DAA030*	TV2DAA030	TV3DAA030	TV4DAA030	TV6DAA030
0-50	0.001*	TV1DAA050*	TV2DAA050	TV3DAA050	TV4DAA050	TV6DAA050
0-100	10.0*	TV1DAA100*	TV2DAA100*	TV3DAA100*	TV4DAA100*	TV6DAA100*
0-150	10.0*	TV1DAA150*	TV2DAA150*	TV3DAA150*	TV4DAA150*	TV6DAA150*
0-200	10.0*	TV1DAA200*	TV2DAA200*	TV3DAA200*	TV4DAA200*	TV6DAA200*
0-300	10.0*	TV1DAA300*	TV2DAA300*	TV3DAA300*	TV4DAA300*	TV6DAA300*
0-500	10.0*	TV1DAA500*	TV2DAA500*	TV3DAA500*	TV4DAA500*	TV6DAA500*
50-0-50	0.001	TV1DAA5T5*	TV2DAA5T5*	TV3DAA5T5*	TV4DAA5T5*	TV6DAA5T5*

\* 1 1/2" DC current meters are self-contained through 10 amps; 15 amps and higher are supplied as 50mV meters and require an external shunt from page C3. 2 1/2", 3 1/2" and 4 1/2" meters are self-contained through 50 amps. Higher ranges are 50 mV meters and require an external shunt from page C3.



Model 183 Multiplier



Model 186 Current Transformer



Donut Current Transformer



Terminal Type Current Transformer

### DC Millivoltmeters, Self-shielding movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number				
		1-1/2" Model 921	2-1/2" Model 922	3-1/2" Model 923	4 - 1/2" Model 924	4"x6" Model 926
0-50	10.0	TV1DMV050	TV2DMV050	TV3DMV050	TV4DMV050	TV6DMV050
0-100	20.0	TV1DMV100	TV2DMV100	TV3DMV100	TV4DMV100	TV6DMV100
0-500	100.0	TV1DMV500	TV2DMV500	TV3DMV500	TV4DMV500	TV6DMV500
50-0-50	20.0	TV1DMV5T5	TV2DMV5T5	TV3DMV5T5	TV4DMV5T5	TV6DMV5T5

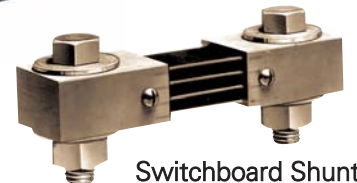
### DC Voltmeters, Self-shielding movement

Range	Approx. Impedance (Ohms) @ 60 Hz	Model/Size and Catalog Number				
		1-1/2" Model 921	2-1/2" Model 922	3-1/2" Model 923	4 - 1/2" Model 924	4"x6" Model 926
0-1	All 1,000 ohms per volt	TV1DVV001	TV2DVV001	TV3DVV001	TV4DVV001	TV6DVV001
0-5		TV1DVV005	TV2DVV005	TV3DVV005	TV4DVV005	TV6DVV005
0-8		TV1DVV008	TV2DVV008	TV3DVV008	TV4DVV008	TV6DVV008
0-10		TV1DVV010	TV2DVV010	TV3DVV010	TV4DVV010	TV6DVV010
0-15		TV1DVV015	TV2DVV015	TV3DVV015	TV4DVV015	TV6DVV015
0-20		TV1DVV020	TV2DVV020	TV3DVV020	TV4DVV020	TV6DVV020
0-25		TV1DVV025	TV2DVV025	TV3DVV025	TV4DVV025	TV6DVV025
0-30		TV1DVV030	TV2DVV030	TV3DVV030	TV4DVV030	TV6DVV030
0-50		TV1DVV050	TV2DVV050	TV3DVV050	TV4DVV050	TV6DVV050
0-100		TV1DVV100	TV2DVV100	TV3DVV100	TV4DVV100	TV6DVV100
0-150	TV1DVV150	TV2DVV150	TV3DVV150	TV4DVV150	TV6DVV150	
0-200	TV1DVV200	TV2DVV200	TV3DVV200	TV4DVV200	TV6DVV200	
0-250	TV1DVV250	TV2DVV250	TV3DVV250	TV4DVV250	TV6DVV250	
0-300	TV1DVV300	TV2DVV300	TV3DVV300	TV4DVV300	TV6DVV300	
0-500	2000 ohms per volt	TV1DVV500*	TV2DVV500	TV3DVV500	TV4DVV500	TV6DVV500
0-750		TV1DVV750*	TV2DVV750*	TV3DVV750	TV4DVV750	TV6DVV750
0-1000		TV1DVV1TH*	TV2DVV1TH*	TV3DVV1TH*	TV4DVV1TH*	TV6DVV1TH*

\*External multipliers (not included), Model 183, are required with 1 1/2" DC meters 500 volts or higher; on 2-1/2" DC meters, 750 volts or higher; and on 3-1/2" and 4 - 1/2" meters, 1000 volts or higher.



Portable Shunt



Switchboard Shunt

Ordering information on pages C3