# Tru-Vue Style Analog Panel Meters

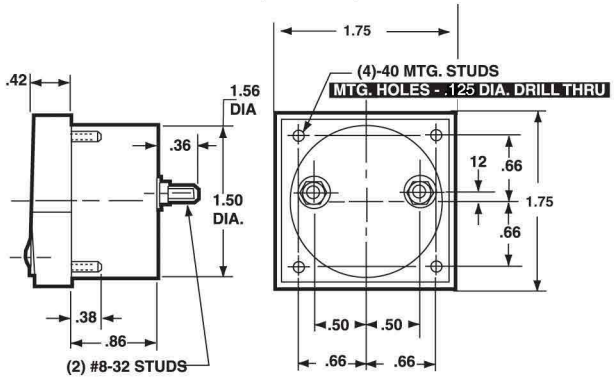
- ***Clear acrylic case updates panel design***
- ***Black knife-edge pointer for precision reading***
- ***Special colored scales or logos available***

## Specifications

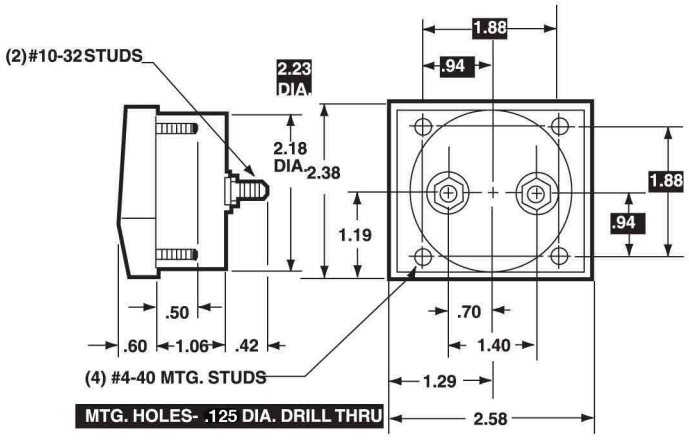
| | |
|---|---|
| Accuracy: | ±2% F.S. (iron vane), ±3% F.S. (rectifier) |
| Movement: | DC: Annular, self-shielding<br>AC: Models 953 & 954: Iron-vane, magnetically damped<br>others: Annular, rectified |
| Suspension: | Pivot and jewel or taut band |
| Tracking: | ±3% |
| Repeatability: | 2%, taut band: 0.5% |
| Shielding: | Calibration is unaffected by stray magnetic field or panel mounting. |
| Response Time: | 1.5 seconds maximum above10mA. |
| Overload (1 sec.): | 10 times F.S. |
| Overload (Continuous): | 1.5 times F.S. |
| Dial: | Sharp clear scale. Each dial arc is calibrated to track the specific type of movement used. |
| Operating Temperature: | -4°F to +149°F (-20°C to +65°C) |
| Resistance: | ±15% of meter impedance |
| Case: | Clear plastic |
| Pointer: | Knife edge, black matte finish |
| Scale Length: | Models 921 & 941: 1.56" (39.62mm)<br>Models 922 & 942: 2.40" (60.96mm)<br>Model 953: 2.94" (74.68mm)<br>Models 923 & 943: 3.27" (83.06mm)<br>Model 954: 3.53" (89.66mm)<br>Model 924: 3.92" (99.67mm) |
| Net Weight: | Models 921 & 941: 1.5oz (.04kg)<br>Models 922 & 942: 4oz (.11kg)<br>Models 923, 943 & 953: 6 oz (0.17kg)<br>Models 924, 944 & 954: 8oz (0.23kg) |

## Dimensions

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




### 2-1/2"-Model 922, 942

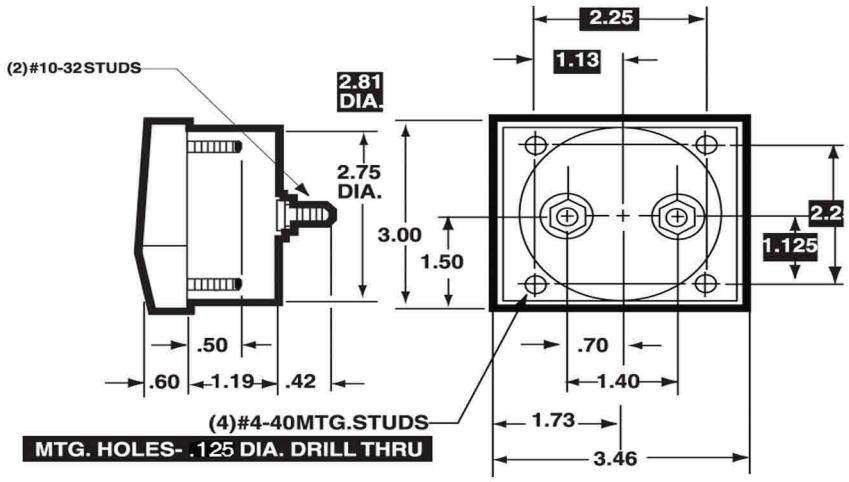





Revised 04-01-13

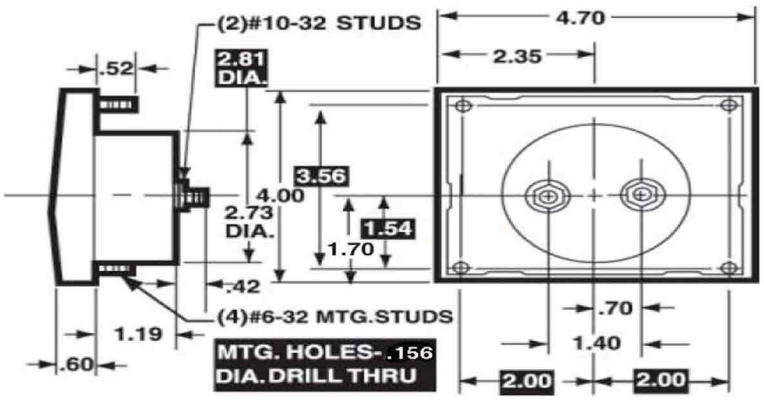
## Dimensions

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

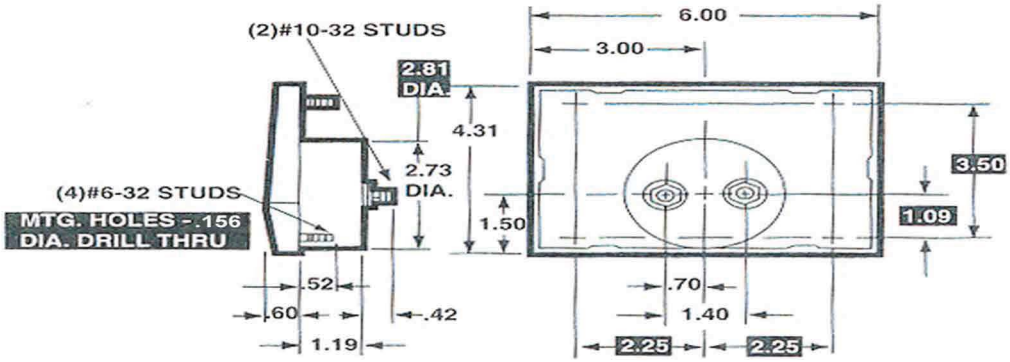



1 = Panel Meter Cut-out Dimensions

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




### 4x6"-Models 926 & 946



## 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.

### 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).

### 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 946 |
| 0-5 | 2000 ohms per volt | TV1RVV005 | TV2RVV005 | TV3RVV005 | TV4RVV005 | TV6RVV005 |
| 0-10 | | TV1RVV010 | TV2RVV010 | TV3RVV010 | TV4RVV010 | TV6RVV010 |
| 0-15 | | TV1RVV015 | TV2RVV015 | TV3RVV015 | TV4RVV015 | TV6RVV015 |
| 0-20 | | TV1RVV020 | TV2RVV020 | TV3RVV020 | TV4RVV020 | TV6RVV020 |
| 0-25 | | TV1RVV025 | TV2RVV025 | TV3RVV025 | TV4RVV025 | TV6RVV025 |
| 0-50 | | TV1RVV050 | TV2RVV050 | TV3RVV050 | TV4RVV050 | TV6RVV050 |
| 0-100 | | TV1RVV100 | TV2RVV100 | TV3RVV100 | TV4RVV100 | TV6RVV100 |
| 0-150 | | TV1RVV150 | TV2RVV150 | TV3RVV150 | TV4RVV150 | TV6RVV150 |
| 0-200 | | TV1RVV200 | TV2RVV200 | TV3RVV200 | TV4RVV200 | TV6RVV200 |
| 0-250 | | TV1RVV250 | TV2RVV250 | TV3RVV250 | TV4RVV250 | TV6RVV250 |
| 0-300 | | TV1RVV300 | TV2RVV300 | TV3RVV300 | TV4RVV300 | TV6RVV300 |

### DC Micrommeters 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 | 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 ( )

## 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 | TV6DAA30 |
| 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. 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.

### 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 | All1,000 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.

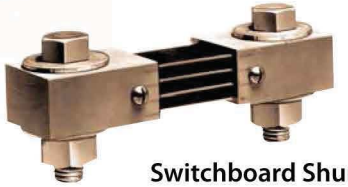
**Model 183 Multiplier**

**Model 186 Current Transformer**

**Donut Current Transformer**

**Terminal Type Current Transformer**

**Portable Shunt**



**Switchboard Shunt**

# Mouser Electronics

Authorized Distributor

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Simpson:

TV6DUA100 TV3DUA1H1 TV1DUA1H1 TV4DUA1H1 TV3DUA100 TV2DUA1H1 TV1DUA100 TV2DUA100 TV4DUA100 TV6DUA1H1 TV6DMA300 TV2DMA300 TV1DMA300 TV4DMA300 TV3DMA300 TV1DMA750 TV3DMA750 TV2DMA750 TV4DMA750 TV1RVV005 TV4RVV015 TV6RVV015 TV2RVV015 TV3RVV015 TV1RVV025 TV2RVV005 TV3RVV025 TV6RVV005 TV6RVV010 TV4RVV005 TV1RVV015 TV2RVV025 TV3RVV005 TV6RVV025 TV3RVV050 TV4RVV050 TV1RVV050 TV6RVV050 TV2RVV050 TV4RVV025 TV6RVV020 TV2RVV010 TV3RVV010 TV4RVV020 TV1RVV020 TV3RVV020 TV4RVV010 TV1RVV010 TV2RVV020 TV1DVV750 TV4DVV750 TV3DVV750 TV6DVV750 TV2DVV750 TV3AMA050 TV4AMA050 TV3AAA200 TV4AAA200 TV1DAA100 TV6DAA100 TV4DAA100 TV2DAA100 TV3DAA100 TV3DVV025 TV4DVV025 TV2DVV020 TV1DVV020 TV6DVV025 TV4DVV020 TV1DVV025 TV6DVV020 TV2DVV025 TV3DVV020 TV6DVV005 TV4DVV005 TV3DVV010 TV1DVV001 TV2DVV005 TV3DVV005 TV2DVV001 TV4DVV001 TV1DVV005 TV1DVV010 TV6DVV010 TV3DVV001 TV4DVV050 TV4DVV008 TV1DVV008 TV2DVV050 TV6DVV008 TV6DVV030 TV1DVV030 TV3DVV008 TV4DVV015 TV6DVV001 TV3DVV015 TV6DVV050 TV3DVV030 TV2DVV030 TV6DVV015