

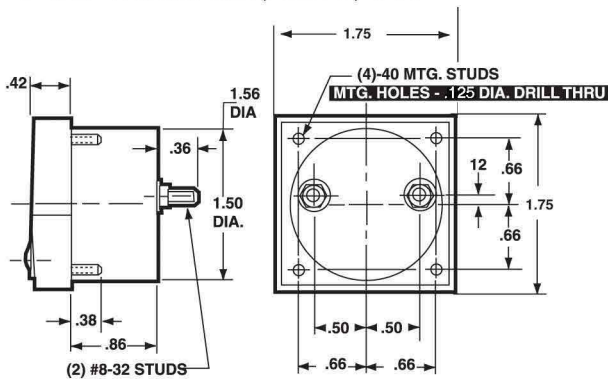
Tru-View Style Analog Panel Meters



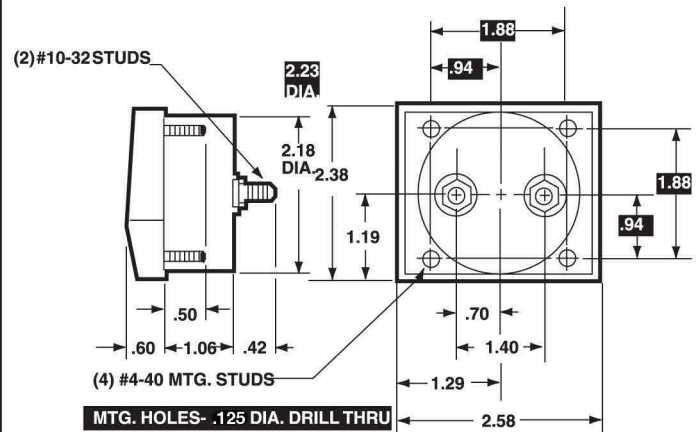
- Clear acrylic case updates panel design
- Black knife-edge pointer for precision reading
- Special colored scales or logos available

Dimensions

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



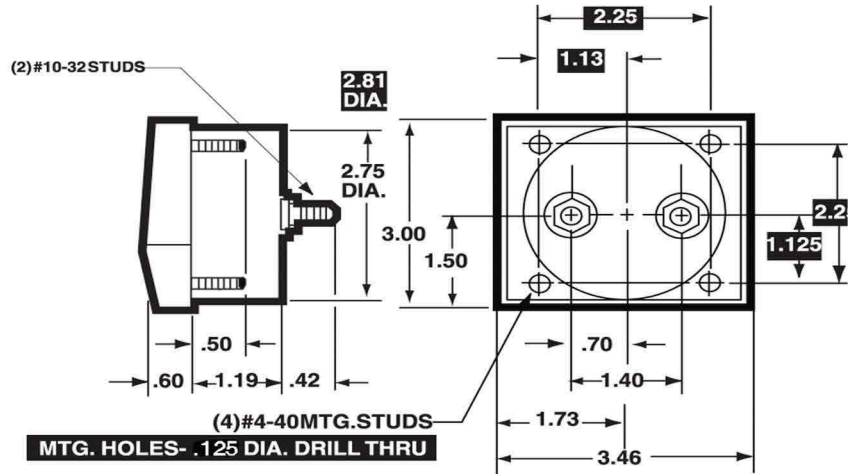
2-1/2"-Model 922, 942



Specifications

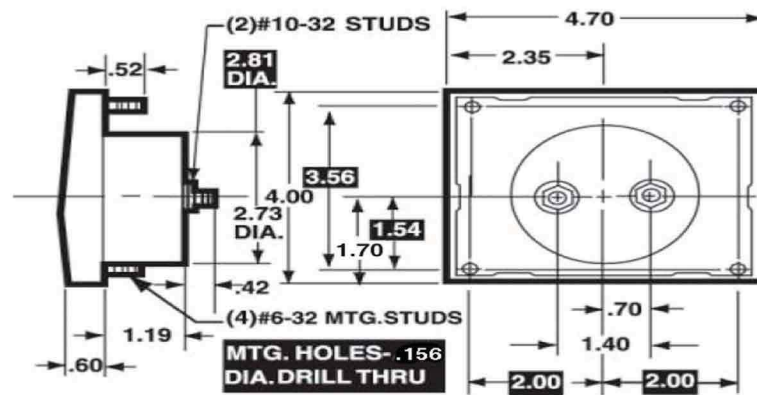
| | |
|------------------------|---|
| Accuracy: | ±2% F.S. (iron vane), ±3% F.S. (rectifier) |
| Movement: | DC: Annular, self-shielding AC: Models 953 & 954: Iron-vane, magnetically damped others: Annular, rectified |
| Suspension: | Pivot and jewel or taut band |
| Tracking: | ±3% |
| Repeatability: | 2%, taut band: 0.5% |
| Shielding: | Calibration is unaffected by stray magnetic field or panel mounting. |
| Response Time: | 1.5 seconds maximum above 10mA. |
| 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) 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) |
| Net Weight: | 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) |

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

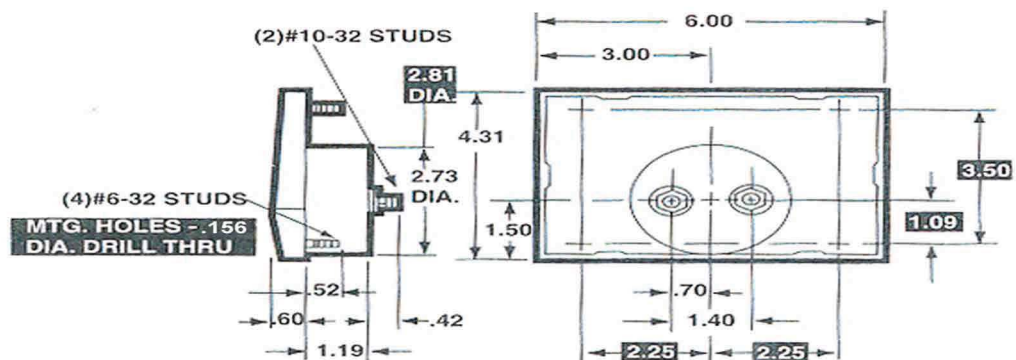


1 = Panel Meter Cut-out Dimensions

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



4x6"-Models 926 & 946





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.

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 Micrometers 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 ()

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. 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 | 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 |
| 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



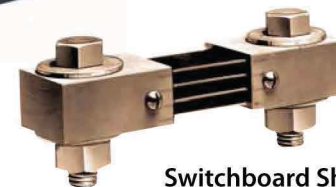
Donut Current Transformer



Terminal Type Current Transformer



Portable Shunt



Switchboard Shunt