Johannesburg Branch
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Mimic In-House Article
Subject: Volt Meters
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Volt Meters

Voltage meters are essential instruments used to measure and display electrical voltage in power systems. This is to ensure safe and reliable operational use of electrical equipment. They are typically found in industrial plants, substations, control panels, power distribution boards, DG set panels, LT/HT panels, motor control centres, instrumentation panels, and transformer training setups.

For example, in a 132kV industrial substation, the VOLT 11 Three Phase Volt Meter would be installed on the HT (High Tension) control panel and connected through a PT for safe high-voltage measurement. It would continuously monitor three-phase voltage to ensure levels remain within safe limits. With a class 0.5 accuracy and 0.1V resolution, it would be expected to provide precise, stable readings that protect equipment and maintain reliable plant operations. It would also support direct AC voltage measurements from 30 to 300V AC and the front device protection IP-65 would ensure durability in tough industrial conditions.

In a commercial buildings power distribution board, the AV-11V Single-phase Digital AC Panel Volt Meter would be installed inside the main control panel, to monitor the incoming 230V AC supply and ensure that the voltage remains within safe operating limits. With a measuring range of 30 to 500V AC, low burden (<0.2VA),1.4 second response time, and 1500 samples per second, users can expect clear red digital readings, reliable performance, and accurate voltage monitoring to help prevent electrical faults and equipment damage.

The AV-14DV DC Voltage Meter is a suitable device to use anywhere where DC voltage needs to be measured displayed and verified for electrical safety and performance. It is a precision instrument typically found in electric control panels, power distribution boards, instrumentation panels, transformer training setups, and solar systems. The AV-14DV DC works with standard electrical power (100–270V AC or DC) and uses very little energy. It can safely operate in normal indoor temperatures from 0 to 55°C and can be stored up to 70°C, even in humid conditions. The device front protects against dust and water splashes via a protection rating IP-65. Made with a tough polycarbonate front and a durable ABS body, it's designed to be mounted easily on panels (101 × 101 × 43 mm, cutout 92 × 92 mm) and comes with mounting clamps. Certification makes it a reliable and sturdy choice for monitoring DC voltage in industrial or training setups.

When it come to Food Processing Plants, the EPM-70 Multifunction Meter is well suited because this facility requires continuous energy monitoring, load management, and power quality control. The EPM-70 would be installed in the main LT (Low Tension) control panel, distributing electrical power to mixers, refrigeration units, conveyor systems, and packaging machines. This environment involves continuous operation, fluctuating motor loads, and strict production schedules. The meter would monitor three-phase voltage and current, total and per-phase power (kW, kVA, kVAr), energy consumption (kWh), frequency (45–60 Hz), and power factor. The EPM-70's other multifunction features would help to detect load imbalance, poor power factor, and harmonic distortion. Users can expect accurate energy tracking, import/export measurement, and reliable RS-485 Modbus communication for integration into the plants energy management system, thereby helping to control electricity costs, prevent equipment downtime, and maintain efficient production.

Contact us for more information on volt panel meters.

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