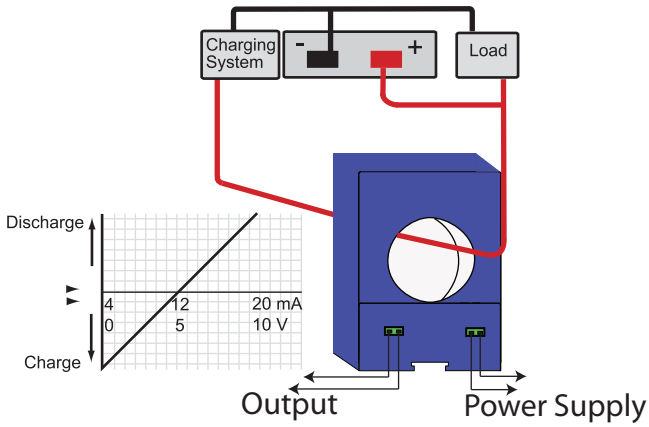
# Monitoring DC Current

Direct current is used in many industrial processes. In most cases, AC power is used for delivery of the power, and then converted to DC though electronic modification. Computers use 5 and 12 volts DC. Servo motors operate with voltages from lower than 10 to 200 volts or much higher. Large DC motors often are designed to use 750 volts. Since the speed of the motor is directly proportional to the voltage supplied, DC motors have historically been the first choice for moving loads at varying speeds. DC power is used throughout a plant from system control to heavy lifting.

With the renewed interest in alternative power sources, DC systems are also found in photovoltaic solar power and wind power generation as well. Photovoltaic systems produce low-voltage DC power from each cell, and each cell is connected in series to boost the voltage to higher levels so the effect of impedance is minimized. Wind generators are often designed to charge batteries at 12 or 24 volts, and some produce DC voltages to 240 volts depending on the need or application.




### DC Current Monitoring Applications

- Welders
- Head rigs (saw mills)
- Veneer sorters
- Gantry cranes
- DC power generation
- Telecommunications
- Transportation
- Mining

# DT Series, Large Aperture For Monitoring DC Current Up to 1200 AMPS

DC power systems are growing in popularity for many reasons: only one or two conductors are required, there is no capacitance interaction between the conductors, and DC driven motors are commonly used with high inertia loads.

NK Technologies' DT series sensors are industry's first choice for measuring and monitoring DC systems. With the larger aperture models, any circuit to 1200 amps can be easily monitored. By combining the sensor output with that of NK Technologies' VTD voltage transducer, a representation of the watts used or produced can be obtained. The specific model selected will produce either a proportional analog output indicating current flow in one direction (unipolar), or a proportional output indicating current flow and direction (bipolar).

Featurds a large 1.81" diameter (46 mm) aperture.