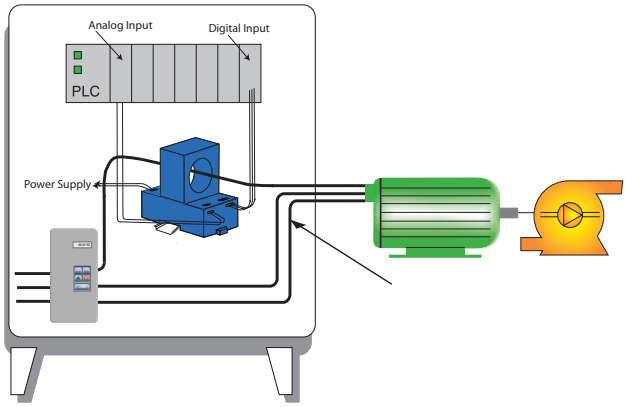
Monitoring High Current Loads

To monitor high current loads, it often requires the installation of a current transformer sized for the maximum current that will be used, then the 5 amp secondary of the current transformer is connected to a shorting block for safety. The connection then runs from the shorting block to a signal conditioner to produce the analog output proportional to the current, or to a different type of signal conditioner to produce an alarm relay contact. Once these connections are made, the controller can be connected to the signal conditioner outputs. It requires a great deal of time to interconnect these components, plus the time expended to adjust the signal outputs to match the primary load characteristics. With the ATS Series AC Current Switch and Transducer all that is required is to snap the ATS onto a DIN rail, connect it to a power source and then connect the outputs to the controller.



Monitor air handling blowers, pumps, crushers and many other large loads with one self-contained current switch (limit alarm) while also using the built in analog signal to spot bearing wear and other issues before they cause a break down.

Some applications where monitoring high AC current loads is important for preventive maintenance:

- Hammer and Ball Mills
- Agitators and Mixers
- Slurry and Paste Pumping
- Lumber Mills
- Shredders and Grinders
- Compressors and Blowers
- Refrigeration and Condensers
- Cone and Jaw Crushers

ATS AC Current Switch and Transducer makes Monitoring High Current Loads Easy and Safe

NK Technologies designed the ATS Series specifically to protect loads using higher current levels. This new patent pending one pièce solution combines a limit alarm (switch) with an analog output signal transducer.

The limit contact is adjustable in ten amp increments from 10 to 1200 amps using three switches One rotary switch selects the lowest value: 10, 20, 30 up to 90 amps. A second rotary switch allows selection of the trip point by hundreds: 100, 200, 300 up to 900. A final slide switch selects either 0 or 1000 amps

The larger sensor housing provides enough space for paralleled conductors (up to 3–350 MCM THHN or 4–250 MCM THHN per phase) to pass through the sensing window. The sensor does not physically contact the conductor, similarly to our other designs, and can be used to directly monitor AC motor loads to 500 horsepower and larger, UL listed (pending) for voltages to 600V AC.

ATS Current Transducer with Rotary Switch Limit Contact Adjustment