Is your SWITCHGEAR SAFE ????
And it will also help you to manage switchgear maintenance program

SURETECH
Transient Sensor and Accumulator (TSA)

Have you ever wanted to keep track of how much abuse your switchgear contacts have taken from tripping? Have you spent sleepless nights worrying that some of your switchgear could blow up on the next power network fault?

The SURETECH Transient Sensor and Accumulator (TSA) captures transients of various types such as faults, network switching surges, or lightning, and accumulates these energy transients. In order to determine whether the switch still meets its fault rating, the SURETECH TSA measures the switching transient energy and will help you to determine when the switchgear will need overhauling, or maintenance? These switch transient parameters can be fed to your SCADA system, or downloaded to your laptop computer via the RS232 port. The SURETECH TSA is *THE* most cost-effective method to measure a switch's maintenance and safety parameters.
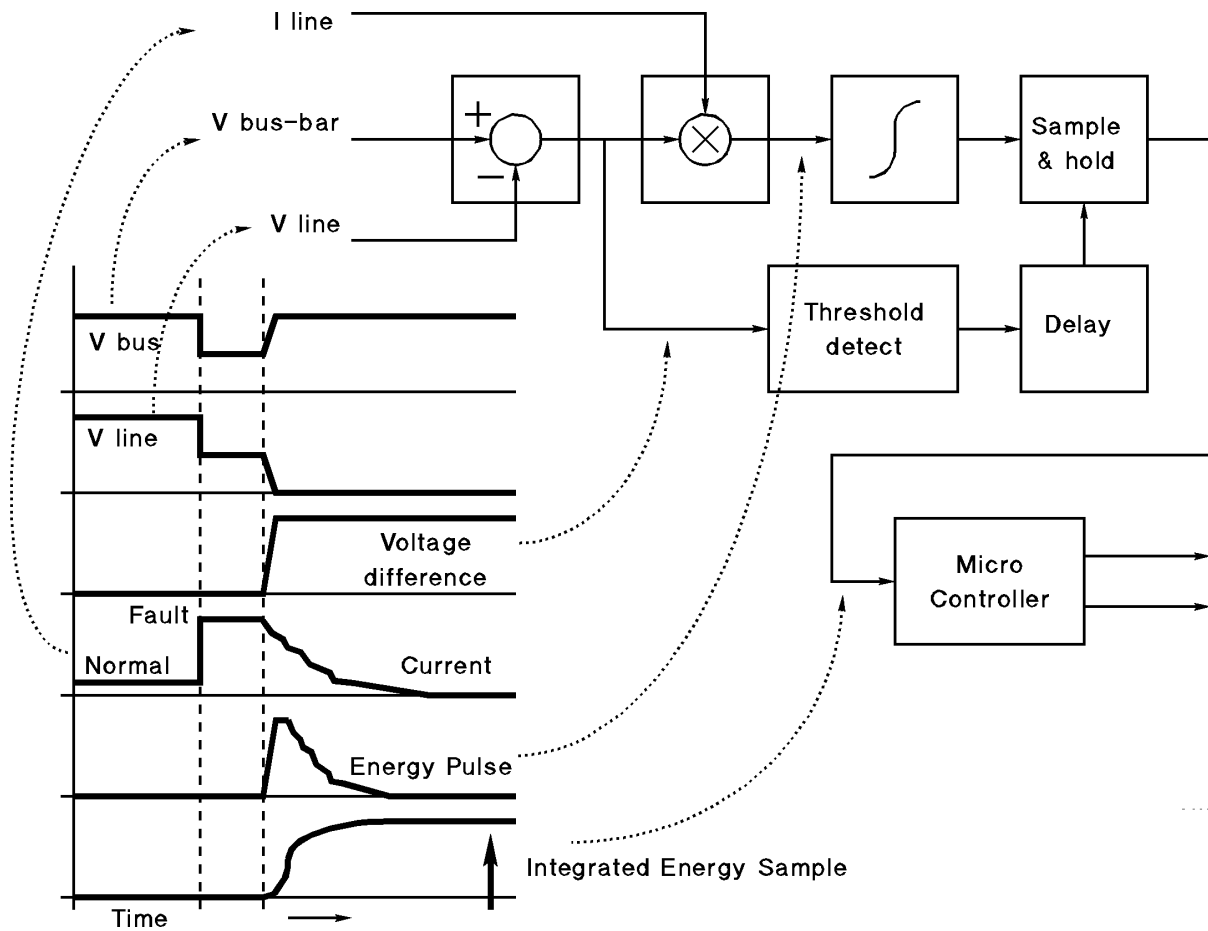
General Features:
✓ Non-volatile memory accumulates total energy from switch trips
✓ Number of transient events, such as switch trips are counted
✓ RS-232 output is isolated from measuring circuits, and feeds directly into a PC
✓ Voltage inputs can be taken from 110Vac, 220Vac, or directly from our SURETECH VTs to measure AC or DC voltage
✓ Current input can be taken from Hall effect sensors, or from CTs (1A or 5A)
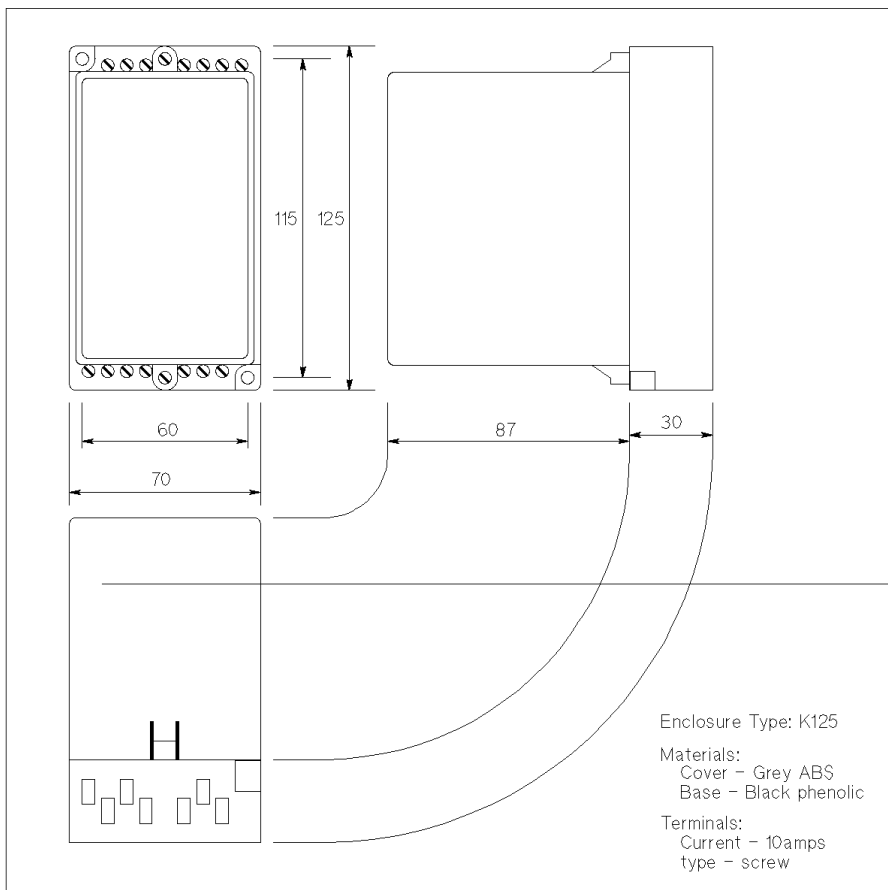
✓ Standard K125 transducer enclosure for simple mounting (125mmx70mmx117mm)
✓ Standard screw terminals for easy and reliable connections
✓ Transient suppression on inputs and outputs
✓ Wide range of auxiliary Power Supply options available, including 110Vac, 220Vac, and battery supplies.
✓ Inputs, outputs, and auxiliary power supply are galvanically isolated
✓ DC voltage, or DC current outputs available
✓ Backup to provide you support for design, application, installation, and maintenance information

SURETECH Transient Sensor & Accumulator Operation:

Measurand	Determined By	Accuracy
Current	• Signal is conditioned and scaled. Wide bandwidth signal is maintained • Signal is then fed to a multiplier where it is further processed	• <0.5%
Voltage	• V bus-bar signal is conditioned and scaled. Wide bandwidth signal is maintained • V line signal is conditioned and scaled. Wide bandwidth signal is maintained • Signal is then fed to a difference circuit where a differential voltage transient signal is determined • Voltage transient signal is then fed to the multiplier where it is processed with the current derived transient signal	• <0.5%
Power & energy of transient	• Transient V & I samples are multiplied to extract the energy pulse. Care is taken to ensure the transient's wide bandwidth state • This wide bandwidth impulse can be made available for transient recorders • The impulse is then fed to an integrator where its energy is determined	• <1% error
Transient accumulator	• Each of the transients are sampled • The samples are then accumulated by the micro controller and held in a non-volatile register • This value is scaled and can be output to a display or SCADA system • The number of transients are also counted & stored in non-volatile memory	