

Smart Tap[®]

Fault Location Restoration of Transmission Networks

Locate and isolate transmission line faults instantly in looped networks.

Sectionalize your lines quickly by identifying the faulted section. In looped networks, this is accomplished by detecting and reporting fault direction. All direction indication arrows point to the fault.

FEATURES

- Ideal for looped and radial circuits
- Reports to SCADA over DNP3.0
- Mounts to existing poles, structures and switches with no ground level foot print
- Automated, remote, or manual switching
- Detects and reports direction of faults for: momentary, high impedance, overcurrent and on unbalanced networks
- Provides estimate of distance from measuring point

SPECIFICATIONS

Fault Sensing Capabilities

- Direction
- Overcurrent
- Lower Current Line to Ground Faults
- Momentary Faults
- Fault Distance Estimation

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Ratings and Specifications

Applicable Voltages	15kV to 550kV
Fault Sensing Capabilities	up to 40 kA
Communications	Serial and Ethernet
Protocols	DNP3, Modbus
Current Sensing	Southern States ICS ® or conventional CTs
Installation	Zero foot print, mounts on switch

INTELLIGENT CIRCUIT SENSOR - ICS®

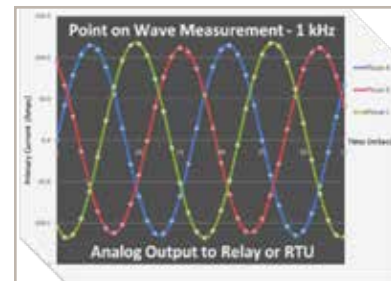
- Smart Tap functions perfectly with the Southern States Intelligent Circuit Sensor - ICS
- The ICS provides real time waveform captures
- The digital algorithms for fault direction and distance detection are built into the ICS
- The ICS consists of:
 - Electronic current and voltage sensor
 - Receiving module
 - Substation hardened digital computer



Patented electronic current sensor
Requires no batteries



Digital processing receiving



Real time waveform capture

SYSTEMS INTEGRATION

Smart Tap provides direction information to SCADA through local RTU and SCADA communication network. Direction indicators can be displayed on the SCADA diagrams and to provide information to the operator to guide the sectionalizing switching steps.



Control Center SCADA
Display with Fault Direction
Indication

