

# Trip Test / Alarm Control / Buffer Amplifier



Front View

The Sartrex Trip Test / Alarm Control / Buffer Amplifier is part of the instrumentation for the CANDU Reactor. It is related to the instrumentation system for reactors using incore flux detectors. The configuration of this unit allows for its installation in a NIM BIN.

The Trip Test / Alarm Control / Buffer Amplifier has two separate circuits, the Trip Test portion and the Alarm Control / Buffer Amplifier portion. These circuits perform three functions:

## Trip Test

This is a test circuit that when activated, injects a test current parallel to the current injected by the incore flux detector.



Internal View

## Alarm Control

This circuit compares the output voltage from the external incore flux detector amplifier to an adjustable preset voltage reference. When the input voltage (from the incore flux detector amplifier) exceeds the reference voltage, it activates the alarm circuit.

## Buffer Amplifier

The Buffer Amplifier section buffers the signals that go into and leave the alarm control section.

## Specifications

### Operating Temperature

10° to 50° C

### Humidity Range

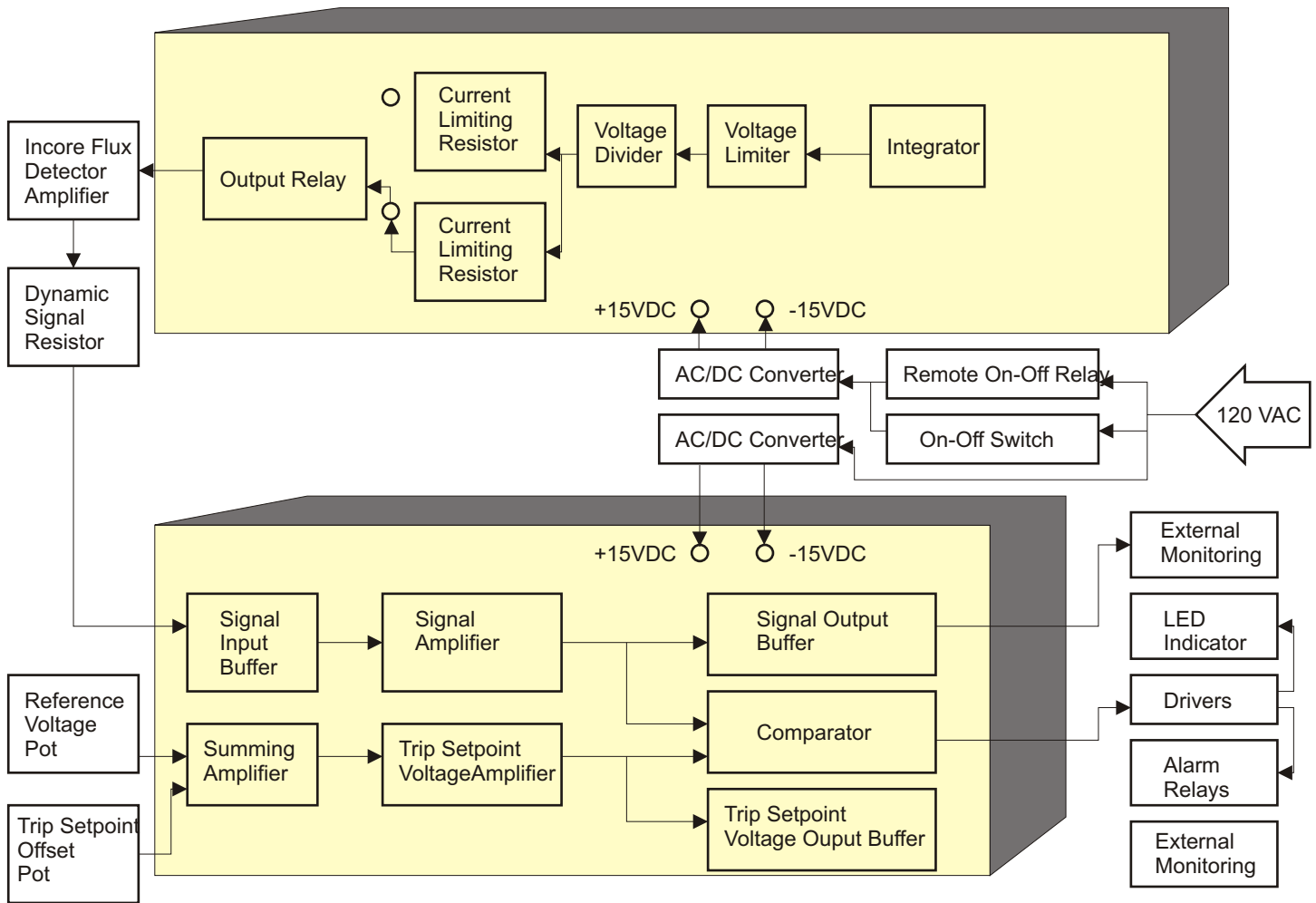
95 % for 168 hours

### Electromagnetic Interference Rejection:

Meets MIL-STD-462/462B

### Seismic Qualification

Meets Atomic Energy of Canada Ltd. (AECL) TS-XX-68000-11



The Sartrex Trip Test/Alarm Control/Buffer Amplifier is an instrument qualified, designed and fabricated by highly skilled personnel. Sartrex Quality Assurance members inspect and document all major steps of the production, from the incoming parts to the shipping of the final unit.

Sartrex has been producing the Trip Test / Alarm Control / Buffer Amplifier since 1979. These modules are now in operation in all 600MW CANDU reactors located in the following countries and sites.

-  Ontario Power Generation, Pickering
-  Ontario Power Generation, Darlington
-  Bruce Nuclear
-  Embalse, Argentina
-  Cernavoda, Romania

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