

## Stereo Phase & Fail Alarm

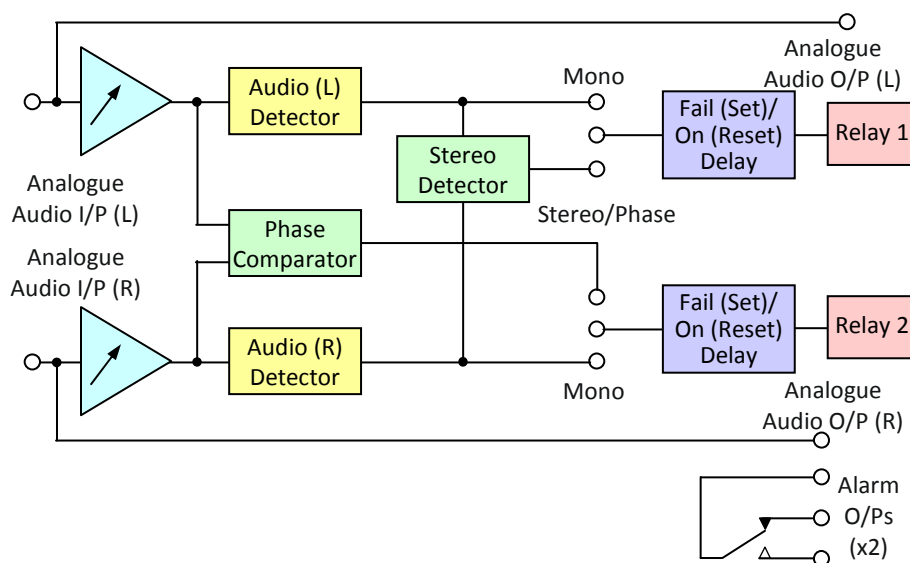
### FEATURES

- Individual left and right failure outputs.
- Stereo out of phase output.
- Adjustable threshold on each output.
- Adjustable fail and restore times.
- Relay isolated outputs.
- Front panel indications.
- Remote, local or auto reset.

### GENERAL

The AAD-4130 audio detector is designed to detect the presence of a stereo program signal and provide alarm outputs on failure of the left, right or both channels and of stereo phase reversal. Alternately the AAD-4130 can be used to monitor two mono audio circuits and provide individual alarm outputs on failure of an audio circuit.

BLOCK DIAGRAM AAD-4130 SIGNAL PATH



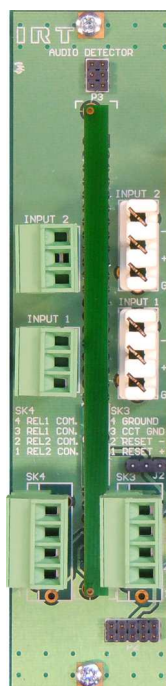
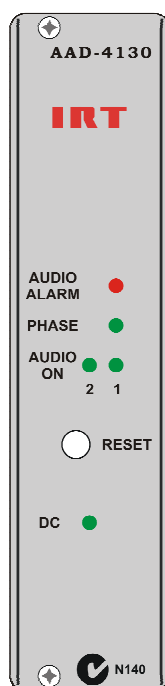
The AAD-4130 will accept audio signals in the range  $-20\text{dBm}$  to  $+20\text{dBm}$  from a balanced or unbalanced source, presenting an input impedance of  $10\text{k}\Omega$ .

The detector circuitry consists of precision rectifier circuits driving comparators, which enable oscillators that trigger dual mono stable circuits that allow the response time of the alarm circuits to be set. The response time is set by means of DIP switches in the RC timing circuit and is adjustable from 5 to 160 seconds for the AUDIO FAIL time out and 5 to 40 seconds for the AUDIO PRESENT response time, the adjustment being made in 5 second steps.

The alarm circuitry consists of latching circuits triggered by the detector circuits. These drive two relays whose contacts are available at the rear panel of the AAD-4130. The alarm circuits can be reset automatically upon return of the audio signals or by a contact closure from the front panel or a remote circuit.

Visual indication of the state of the AAD-4130 detector and alarm circuits is provided by LED indicators on the front panel.

The AAD-4130 is built to the Eurocard format and will mount in all IRT standard frames.



## TECHNICAL SPECIFICATIONS

**Audio:****Inputs:**

Type	Transformerless, balanced bridging.
Impedance	> 10 kΩ
Max. Input level	-20 dBm to +20 dBm.
Connectors	Pluggable screw block connectors, and Krone IDC connectors.

**Control:**

Detection threshold	Internal preset adjustments in the range –20 dBm to +20 dBm.
Response time	5 – 160 seconds in AUDIO FAIL condition. 5 – 40 seconds for AUDIO PRESENT condition. Timing adjustable in 5 second steps using PCB mounted DIP switch assemblies.
Visual indicators	AUDIO FAIL ALARM PHASE AUDIO 1 PRESENT AUDIO 2 PRESENT POWER

**Outputs:**

Relay circuits operated from alarm logic.  
Latching or auto-rest mode available.  
Make or break relay contacts available.

**Inputs:**

When operated in the LATCHING ALARM MODE internal logic alarm circuits can be reset by a front panel RESET pushbutton or by external 12V to 48V to an opto-isolator circuit used to isolate the internal logic circuit.

Connector	Pluggable screw block connectors.
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**Power Requirements:**

Voltage	28 Vac CT (14-0-14) or ±16 Vdc.
Power consumption	2 VA.

**Other:**

Temperature range	0 - 50° C ambient.
Mechanical	Suitable for mounting in IRT 19" rack chassis with input, output and power connections on the rear panel.
Finish	Grey background, black lettering & red IRT logo.
Front panel	Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals.
Rear assembly	
Dimensions	6 HP x 3 U x 220 mm IRT Eurocard.