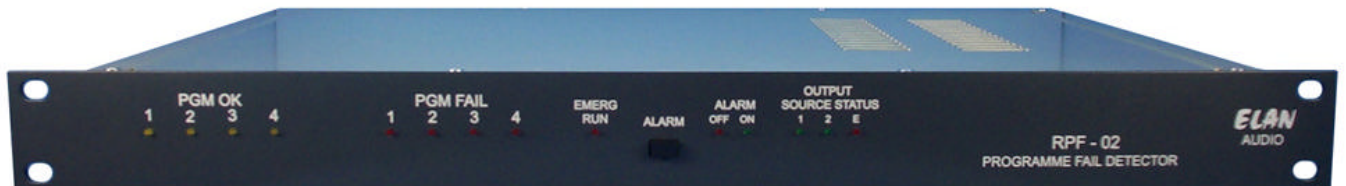

ELAN AUDIO

RPF-02 Program Fail Detector Product Description



RPF02D01

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RPF-02

Rack Mounting Program Fail Detector

4 Program Fail Detector Channels
Relay Alarm Outputs
Line Changeover Relays
Emergency Program AC Power Relay
Emergency Program Insertion

Applications

Basic 4 Channel Mono or 2 Channel Stereo Program Fail Detector
Automatic Line Changeover and Emergency Program Insertion System
Use at Studio site as a general Program Fail Detector.
Use at Transmitter site as an Automatic Line Changeover and Emergency Program Controller.
Interfaces with the Elan Audio "Sentinel", and other brands of Remote Control Systems

General Description.

The RPF-02 Program Fail Detector Unit is built into a 1RU rack mounting case.

It is provided with 4 independent Audio Program Fail detector channels and can be used as 4 independent Mono, or as 2 independent Stereo Program Fail detector channels.

The RPF-02 is internally controlled and managed by a powerful PIC16C57 Microprocessor which control each Program Fail sensing channel, the Common Alarm, Program Changeover, Emergency Program Start and Emergency Program Switching.

A yellow LED activity indicator is provided for each input channel, illuminating when audio program is present.

A red LED program failure indicator is also provided for each input channel and will illuminate on program failure after the pre-set failure time delay has run.

All Four Program Fail Detector Channels are identical and share a common DIP switch setting Alarm Timeout or Delay as a common value shared by all four input channels and can be set in 1 Second steps, from 1 second to 256 seconds.

Adjustable Program Fail recovery time is adjustable in 2 Second steps from 2 Seconds to 128 Seconds, to cater for intermittent short term recovery such as the "Rain Fade" effect commonly experienced with Satellite Systems.

Each input channel operates independently, with Alarm Timeout or Delay starting when valid Audio Program disappears on its input.

Alarm level sensitivity is pre-set and independent for each input via moveable links to 5 levels, 0 dBu, -10 dBu, -20 dBu, -30 dBu and -40 dBu.

A Common Alarm Relay is provided, giving a common alarm whenever one of the 4 input channels has failed.

An alternate action Push Button switch with LED status indicators is provided to switch the Common Alarm off when required.

Apart from the basic 4 Program Fail Detector channels, the RPF-02 is provided with built in Relays for Stereo Line Changeover, Emergency Program Insertion, Emergency Program Start and AC Power switching for the Emergency Program Source making the RPF-02 extremely practical and of potential use in many applications.

Normally the Program Changeover relays operate Automatically, controlled by the Microprocessor with external control inputs are provided to override the Microprocessor from an external Remote Control Unit, and force the Program Changeover Relays to a particular switching state.

It is also possible to Power and Run the Emergency Program Source for tests by external control without switching the Emergency Program to line.

The Stereo Line Changeover facility in the RPF-02 is balanced, based on relays and is wired as a passive circuit with Inputs 1 Left and Right normally feeds to the Outputs.

Input Connectors are XLR 3 Pin Female, Output Connectors XLR 3 Pin Male, Pin 1 Ground.

Emergency Program inputs are Stereo Unbalanced 300 mV Hi-Fi Level on a 9 Pin "D" Connector and balanced to the output in transformer-less differential Line Amplifiers.

A Mono Link is provided to sum Left and Right Emergency Program to Mono making the RPF-02 also suitable in Mono AM Systems.

AC Mains Power inlet is a standard fused IEC Chassis Mounted Male Connector.

Switched AC Mains Power for the Emergency Program Source equipment, is via a standard Chassis Mounted IEC Female connector.

Alarm outputs, control inputs D 25 Connections.

Male on chassis.

Top row	Bottom Row
1; Fail-1 NC	14; Fail-2 NC
2; Fail-1 NO	15; Fail-2 NC
3; Fail-3 NC	16; Fail-4 NC
4; Fail-3 NO	17; Fail-4 NO
5; Alarm NC	18; Common
6; Alarm NO	19; Common
7; Force PGM1 input	20; Force PGM2 input
8; Force EMERGENCY input	21; Run EMERGENCY input
9; Ground	22; Ground
10; Ground	23; Ground
11; XXXX	24; XXXX
12; XXXX	25; XXXX
13; XXXX	

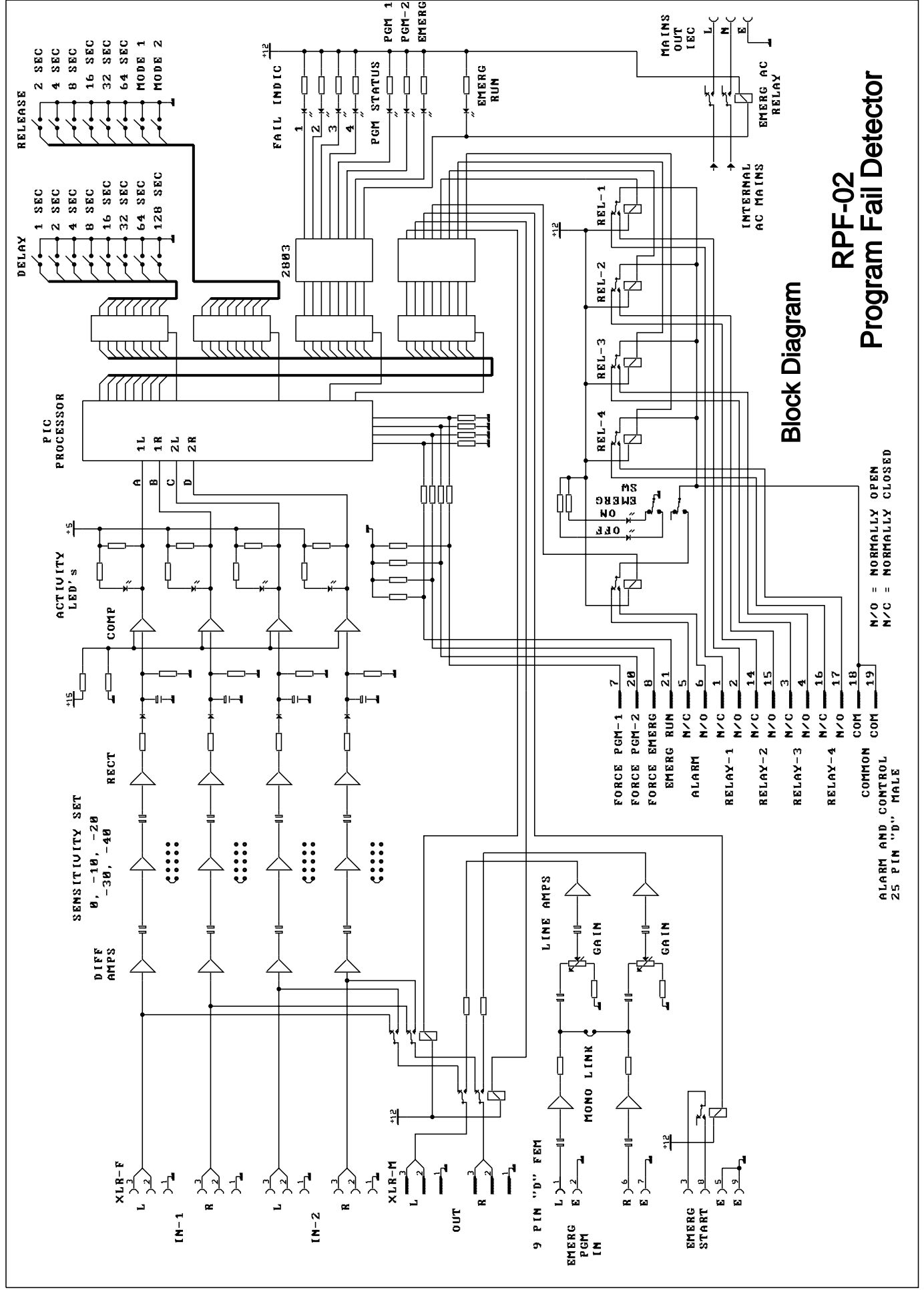
Inputs are pulled high to 12V, ground to operate.

All relay contacts floating.

Emergency input 9 pin D connector.

Female on chassis.

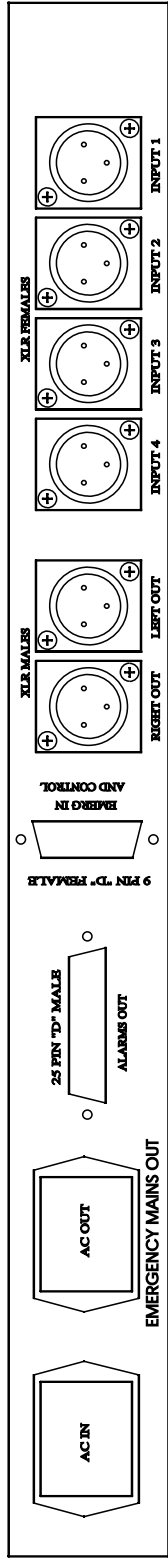
Top row	Bottom Row
1; Emergency in LEFT	6; Emergency in RIGHT
2; Ground	7; Ground
3; Emergency run contact	8; Emergency run contact
4; XXXX	9; Ground
5; Ground	



ELAN
AUDIO

RPF - 02
PROGRAMME FAIL DETECTOR

	PGM OK	PGM FAIL	EMERG RUN	ALARM	ALARM OFF ON	OUTPUT SOURCE STATUS
1	2	3	4	1	2	E
•	•	•	•	•	•	•
•	•	•	•	■	•	•



Front and back view RPF-02