CERBERUS PYROTRONICS AnaLASER Air Sampling Detection Owner's Manual

AnaLASER™
Air Sampling Detection

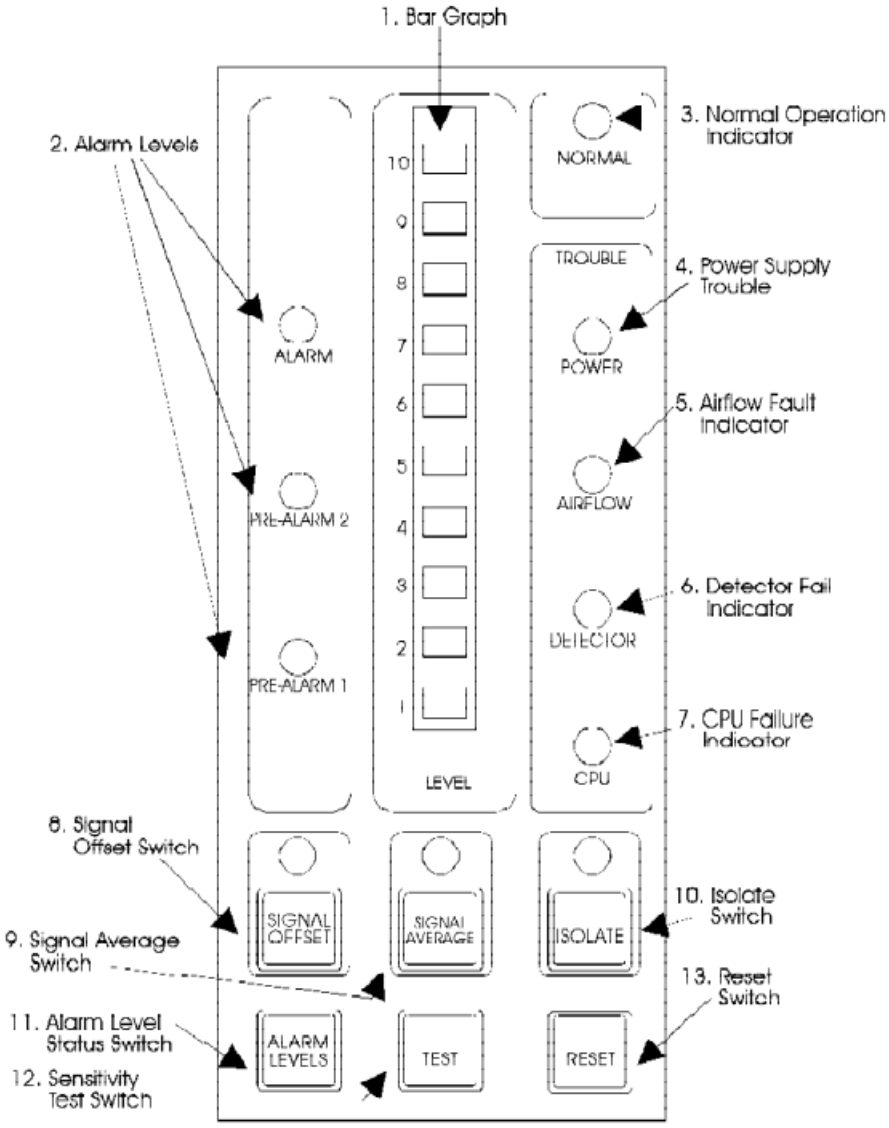
Contents

ENGINEER AND ARCHITECT SPECIFICATIONS

ACC AnaLASER™ Control Cards

- Bargraph Display of Smoke Intensity
- Microprocessor Controlled
- Real-time Monitoring via PC
- Three Field Programmable Alarm Levels
- Alarm Verification at all Levels
- Detector Calibration Test

- Detector Isolate Switch
- Air Flow and Detector Status Indicators
- On-board History Storage
- Listed, FM Approved



AnaLASER™ Control Card Front Panel Function Facilities

Introduction

The AnaLASER™ Control Card, Model ACC, is used in AnaLASER™ control units and in conjunction with AnaLASER™ air sampling detectors. The ACC displays smoke intensity, measured by the detector, in an illuminated bar graph display. One ACC is used for each detector. Smoke intensity, alarm conditions, and system troubles can be communicated to fire alarm control panels via on board dry contact relays. These same conditions are stored in the ACC's own history buffer. Finally, they can also be output to a chart recorder or other recording device.

Description/Operation

The ACC, housed in the control unit, is connected to the AnaLASER™ detector via a six wire cable. Analog signals for smoke and air flow are transmitted along this cable to
the ACC. Power to operate the detector and fan is also carried on this cable.

The ACC provides all the visual and mechanical interaction required to operate its respective detection zone. All detection zone inputs, outputs and data ports are obtained from plug in connectors located on the front of the card. Each detection zone operates as a stand alone system. The ACC is a microprocessor based device with several programmable parameters. All programmable parameters are factory set to default values. In most applications no programming is required to make the system operational.

A history buffer stores information on past smoke levels and events. The programmed information and history data are stored in non-volatile memory. The system will retain
the configuration and history data following a CPU reset or extended periods of power down conditions. Programming and history data acquisition is done through a terminal or a PC with terminal emulation software. By adding a modem, offsite programming and real time monitoring can be facilitated.
The ACC control functions are as follows:

Alarms
One fire alarm is selectable at any point along the bar graph display. This alarm is generally intended to be reported by the associated fire alarm system as a fire alarm.
Two pre-alarms are selectable at any point along the bar graph display. These are generally interpreted by fire alarm systems to require investigation or to cause equipment shutdown. A 0 to 60 second delay can be programmed for each independent alarm level. This delay provides alarm verification for that detector as required.

1. **Bar Graph**

   The bar graph at the center of the control card displays the detector's continuous output of smoke level in 10% increments of full scale. The absolute level of full scale is dependent on the detector head sensitivity. Each bar graph segment can be configured as a possible alarm threshold.
2. **Alarm Indicators**

   In normal operation (see "10, Isolate Switch"), the three alarm LEDs located on the left side of the control card will flash when their respective pre-set levels have been reached and sustained for a period greater than their respective alarm threshold timer delays. Their flashing also indicates the operation of each alarm level's output relay.
3. **Normal Operation Indicator**

   When illuminated, indicates that all system functions are operating and their are no active troubles.
4. **Power Supply Trouble Indicator**

   When flashing, indicates that power has been transferred to battery or that the power is outside the normal range.
5. **Air Flow Trouble Indicator**

   When flashing, indicates loss of adequate flow through the detector. Low flow level is programmable.
6. **Detector Fail Indicator**

   When flashing, indicates that the detector needs servicing or communication to the detector has been severed.
7. **CPU Fail Indicator**

   When flashing, indicates the CPU is not running or is in the reset mode.
8. **Signal Offset Switch**

   When selected, will subtract ambient smoke levels up to 30% of the detector's full scale obscuration. The modified smoke reading is then used to control all output functions.
9. **Signal Averaging Switch**

   When selected, the control card averages the smoke and air flow signals over 2, 4 or 8 second intervals. The modified smoke reading is then used to control all output functions.
10. **Isolate Switch**

    When selected, disables all alarm outputs and indicators regardless of smoke level. Used for system testing.

11. **Alarm Levels Switch**

    When depressed, displays selected alarm levels on the bar graph display.

12. **Test Switch**

    When depressed, tests detector calibration. Bar graph will read 80% of full scale when detector is properly calibrated.

13. **Reset Switch**

    Resets all alarm and trouble conditions.

Cerberus Pyrotronics
8 Ridgedale Avenue
Cedar Knolls, NJ 07927
Tel: (201) 267-1300
FAX: (201) 397-7008
2/96 10M
CPY-IG
Printed in U.S.A.
Cerberus Pyrotronics
50 East Pearce Street
Richmond Hill, Ontario
L4B, 1B7 CN
Tel: (905) 764-8384
FAX: (905) 731-9182
February 1996
Supersedes sheet dated 4/95

Documents / Resources

	CERBERUS PYROTRONICS AnaLASER Air Sampling Detection [pdf] Owner's Manual AnaLASER Air Sampling Detection, AnaLASER, Air Sampling Detection, Sampling Detection, Detection

References

- Fire Alarm Resources | Download fire alarm documents