VG-6833

Mini Conventional Panel

Installation and Operation Manual

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CONTENTS

1. Overview

In consideration of the application of small project, VG-6833 Mini Conventional Panel is well designed and developed, with single detection zone of maximum 30 conventional devices, on the basis of advanced technology of microprocessor. The panel has several indications for the status of fire, fault and normal, as well as short and open circuit. At the same time, the manual controls are also available via buttons of System Check, Mute, Silence/Resume, Reset, Test Mode and Evacuate. Furthermore, the outputs of fire and fault are provided to integrate with other monitor equipment.

2. Technical Specifications

2.1 Operating Data

Power Supply: 220VDC/50~60Hz Operating Voltage: 24VDC
Current: Standby-100mA, Action-2A Battery: 12V 1.6AH (two pieces)
Power Cable:1.5mm^2 or above fire cable, subject to local installation codes.

2.2 Detection Loop Parameters

Detection voltage: 20VDC～24VDC
Standby current: 20mA (full load of 30 devices)
Resistance in fire condition: 150Ω～1.5kΩ (normally 470Ω)
Terminal resistance: 4.7kΩ (at the last device)
Length of detection line: 1000M
Detection Cable: Two-code Fire cable 1.5mm2, subject to local installation codes.

2.3 Output Parameters

Sounder Cable: Two-code Fire cable 1.5mm^2, subject to local installation codes.
Sounder Circuit: Output voltage 20～24VDC, output current 1A, terminal resistance 4.7kΩ
Fault: Volt-free contact output, capacity 1A 24VDC
Fire Output1: Volt-free contact output, capacity 1A 24VDC
Fire Output2: Volt-free contact output, capacity 1A 24VDC

2.4 Dimension

320mm×240mm×67mm

3. Structure and Instruction

3.1 Appearance

Appearance of the panel is shown in Fig. 3.1.

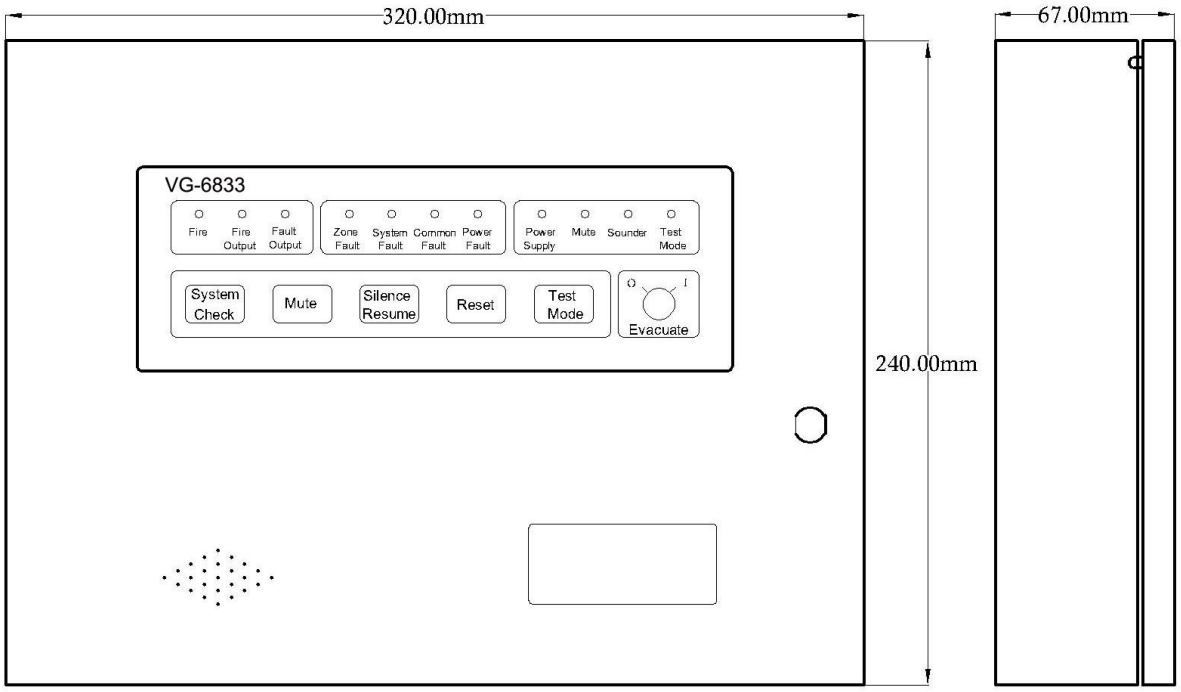


Fig. 3.1

3.2 Front Panel

Front panel of the panel is shown in Fig. 3.2.

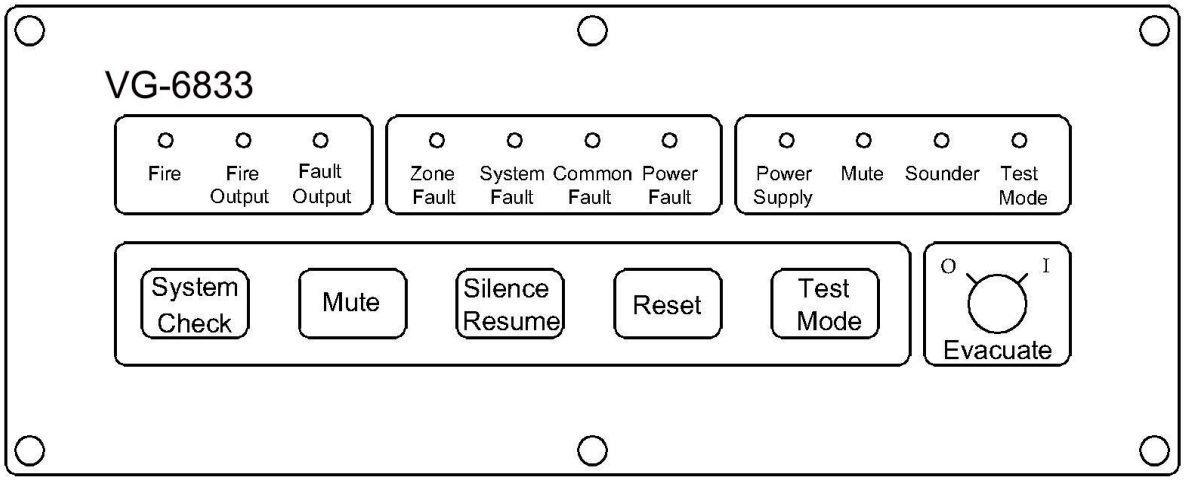


Fig. 3.2

Description of indicators:

Fire—Red, it flashes when one detector detects fire, and illuminates when more than two detectors generates fire alarms until the alarm is cleared.

Fire Output—Red. It flashes when fire output 1 is activated, and illuminates when both fire output 1 and fire output 2 are activated.

Fault Output—Red. It illuminates when fault output is activated.

Zone Fault—Yellow. It illuminates steadily when there is short or open circuit, or device is removed.

System Fault : Yellow. It illuminates steadily when CPU is in fault.

Common Fault: Yellow, it illuminates when any fault occurs.

Power Fault: Yellow, it illuminates when there is fault with main power supply or battery

Power Supply: Green. It illuminates when power supply is running ok.

Mute: Green. It illuminates when the control panel is in silence mode.

Sounder: Green. It illuminates when sounder output is activated, flashes when it's in fault, and doesn't light in silence mode or normal.

Keys Description

Reset: To reset the panel

System Check: To test and check the system running automatically

Mute: To silence internal buzzer of the control panel

Silence/resume: To silence or resume sounder or alarm bell from the sounder circuit

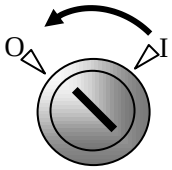
3.3 Evacuate Control

As in Fig.3.3, when "Evacuate" key points at "I", the Sounder Output, Fault-output,Fire-output1 and Fire-output2 will be activated at the same time, and corresponding LEDs will illuminate as well.

As in Fig.3.4, when "Evacuate" key points at "O", all the Outputs and LEDs will be switched back to normal status.

Evacuate

Fig. 3.3



Evacuate

Fig. 3.4

3.4 Internal Structure

Removing screw on the front door, we can open the control panel and see its internal structure, as in Fig. 3.5.

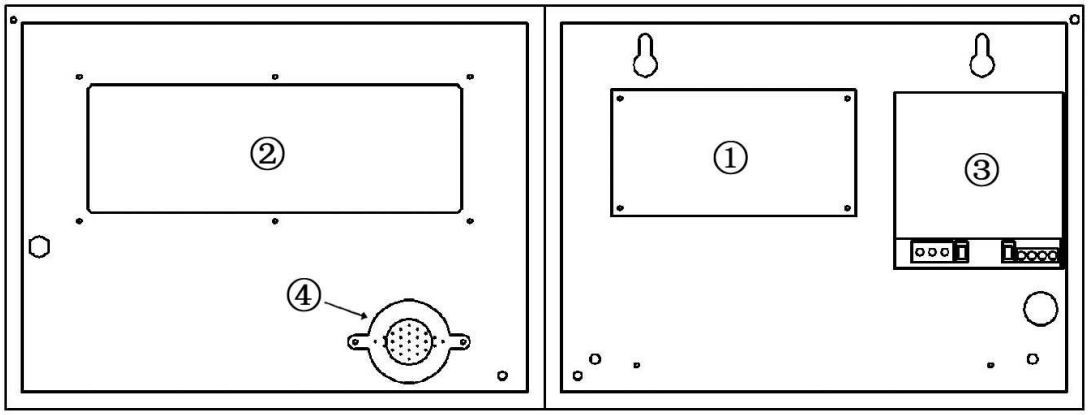


Fig. 3.5

① Main board ② Display board

③ Power Supply ④ Buzzer

Terminals

Terminals are shown in Fig. 3.6.

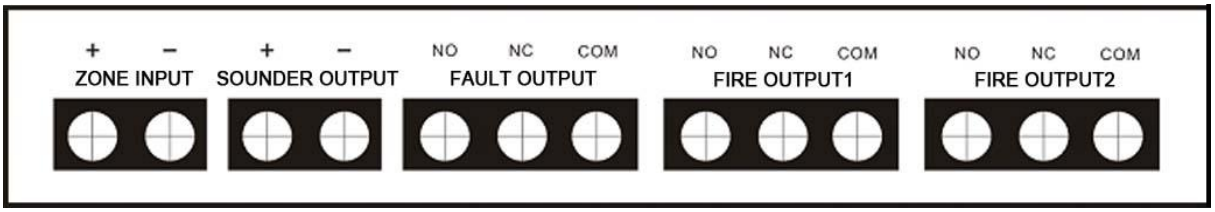


Fig. 3.6

ZONE INPUT（+, -）: Detection **l**oop terminals.

SOUNDER OUTPUT（+, -）: Sounder circuit terminals.

FAULT OUTPUT（NO, NC, COM）: Fault output terminals.

FIRE OUTPUT1（NO, NC, COM）: Fire output1 terminals.

FIRE OUTPUT2（NO, NC, COM）: Fire output2 terminals.

3.5 Operation Status

3.5.1 Zone Status

Fire: The Fire LED illuminates in red.

Fault: Both the Zonal Fault LED and Common Fault LED illuminate.

Normal: Fire LED and Zonal Fault LED are off.

3.5.2 Output Status

Action: Corresponding output LED illuminates steadily.

Normal: All output LEDs are off.

3.5.3 Buzzer

The Buzzer alarms to different priority of levels, from high to low as Fire, Fault and Normal

Fire: fire alarm tone

Fault: fault tone

Silence: no warning sound.

4. Installation

The control panel is Installed as wall-mounted type.

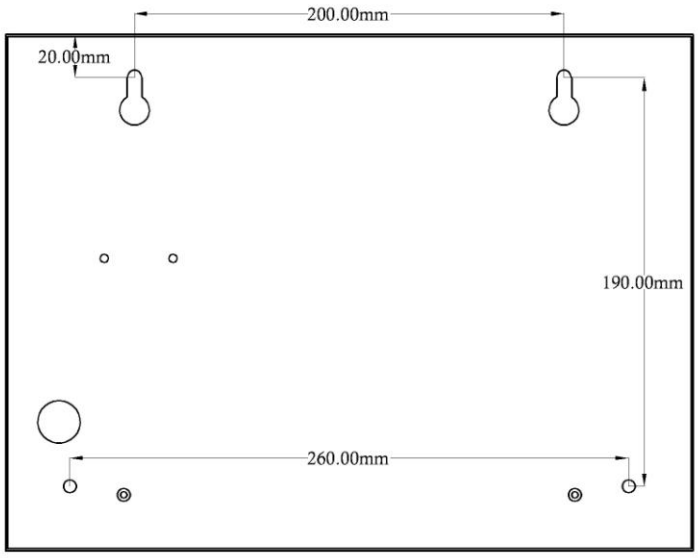


Fig. 4.1

5. Operation Controls

5.1 Silence of Fault and Fire Alarm

Press *Mute* key, Mute LED turns on and the internal buzzer is in silence mode.

Press *Silence/Resume* key, the sounder will be silenced at first. Press the key again and the sounder is resumed.

5.2 Self-test of System

In monitoring state, if press and hold *System Check* key for 1 second, it will check the

condition of inputs, outputs and all LED indications.

5.3 Clearance of alarm state

Clearance of fault and fire alarm, press and hold *Reset* key for 1 second in alarm state, the panel will be restarted, and then fire alarm and all outputs can be eliminated.

6. Wiring Instruction

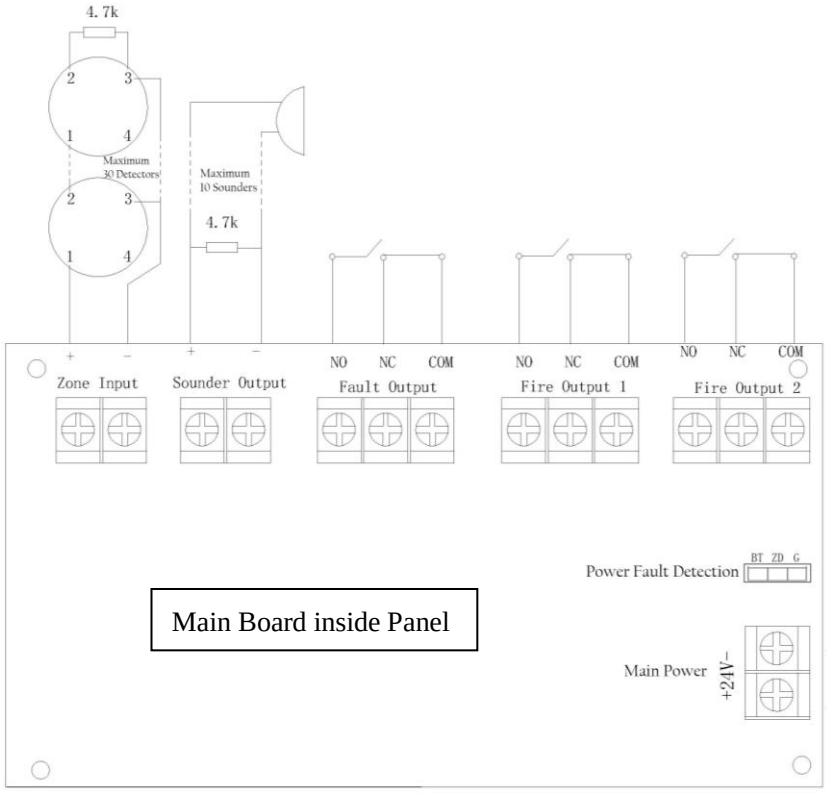


Fig. 5.1

6.1 Detector wiring

6.1.1 Considering electromagnetic compatibility, shielded cables should be used. Please keep reliable contact of the shield layer with the chassis.

6.1.2 Maximum 30 conventional devices of detector and call point should be connected from Zone Input, with a 4 .7kΩ resistor installed at the last unit.

6.1.3 In order to avoid revised wiring, a diode could be installed inside the detector base, but the detection capacity will be reduced.

6.2 Sounder wiring

The sounders should be polarity-sensitive and connected with sounder circuit according to the marked polarity. A 4.7kΩ resistor should be paralleled at end of the line.

7. Operation Matrix

Mode	Action		Indicators										Evacuate switch	Remarks
			Fire	Fire Output	Fault Output	Zone Fault	System Fault	Common Fault	Power Fault	Power Supply	Mute	Sounder		
Normal	Normal operating		off	off	off	off	off	off	off	green	off	off	O	
Alarm	D.L≤500M	Only one detector detects fire (Level 1)	flashes in red	flashes in red	off	off	off	off	off	green	off	illiminates in green	O	"Fire Output 1" and "Sounder Output" activated
		More than one detectors detect fire	illiminates in red	illiminates in red	off	off	off	off	off	green	off	illiminates in green	O	"Fire Output 1", "Fire Output 2"and "Sounder Output" activated
	D.L>500M	One or Two detector detecs fire (Level 1)	flashes in red	flashes in red	off	off	off	off	off	green	off	illiminates in green	O	"Fire Output 1" and "Sounder Output" activated
		More than two detectors detect fire	illiminates in red	illiminates in red	off	off	off	off	off	green	off	illiminates in green	O	"Fire Output 1", "Fire Output 2"and "Sounder Output" activated
	Press "Mute" button		illiminates in red	illiminates in red	off	off	off	off	off	green	green	illiminates in green	O	Turns off the panel alarm tone
Fault	Press "Mute" button		off	off	red	yellow	off	yellow	off	green	green	off	O	"Fault Output" activated and panel generates fault tone
	Press "Mute" button		off	off	red	off	off	yellow	off	green	green	flashes in green	O	
	Press "Mute" button		off	off	red	off	off	yellow	yellow	green	green	off	O	
	Press "Mute" button		off	off	red	off	off	yellow	yellow		green	off	O	
	Press "Mute" button		off	off	red	off	yellow	yellow	off	green	green	off	O	
Evacuation	Switch "Evacuate" key points at "I		off	off	off	off	off	off	off	green	off	illiminates in green	I	Activates all the outputs of "Sounder Output, Fault Output, Fire Output1 and Fire Output2",
Short circuit	Press "Mute" button		off	off	red	yellow	off	yellow	off	green	green	off	O	"Fault Output" activated and panel generates fault tone

NOTE:

a. If detection line less than 500M, there are two Levels of fire alarm mode, Level 1, "Fire Output 1" activated, when only one detector generates fire alarm. Level 2, "Fire Output2" activated, when more than one detector generate fire at the same time

b. If detection line exceed 500M, Level 1, "Fire Output 1" activated, when one or two detectors generate fire alarm. Level 2, "Fire Output2" activated, when more than two detectors generate fire at the same time

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