RLE Technologies

RASP12

User Guide

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RASP12

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CHAPTER 1: PRODUCT DESCRIPTION

1-1 PRODUCT DESCRIPTION

The RASP12 monitors up to 12 normally open contacts. Program switches allow a user to assign zones four to six and ten to twelve as normally closed contacts.

The RASP12 contains a summary alarm relay that activates when an alarm is detected. If any of the monitored contacts change state, the appropriate red LED illuminates and the audible alarm sounds. Once one alarm has been silenced, additional alarms reactivate the audible alarm.

Several functions of the RASP12 can be field modified to accommodate the desired effect.

The alarm state can be latched - the alarm LED goes into slow flash after it is silenced and the alarm becomes inactive. A non-latched alarm becomes inactive and the LED turns off after the alarm has been silenced.

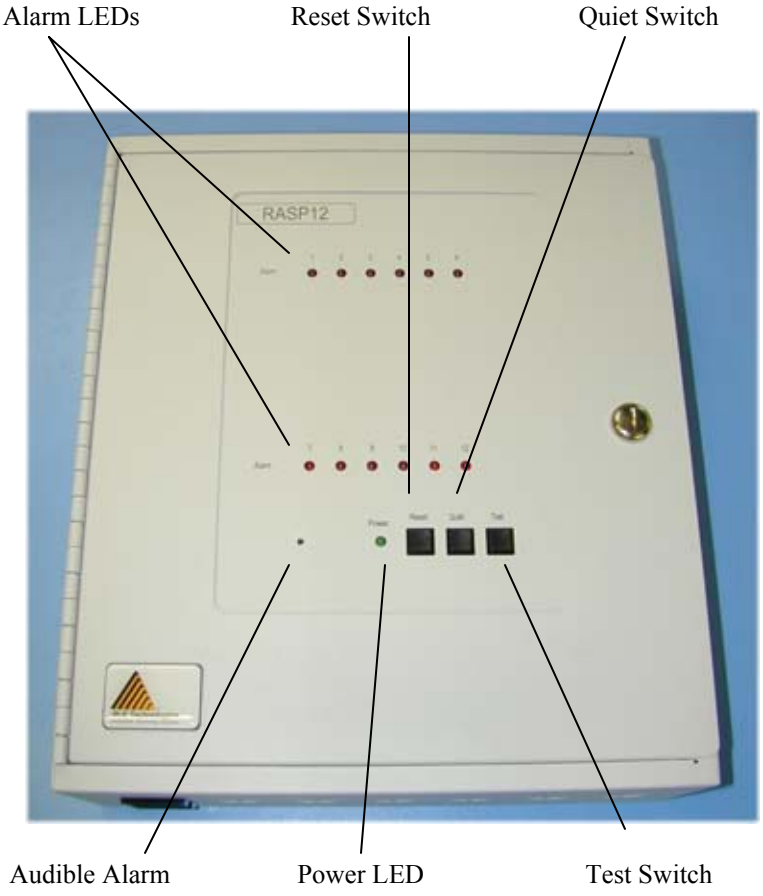

Figure 1-1: RASP12

CHAPTER 2: INSTALLATION

2-1 INSTALLATION

2-1.1 Mounting

1. The size and weight are listed in the technical specifications in the back of this manual.
2. Mount the RASP12 on the wall using the unit's mounting holes. The four mounting holes are on the inside of the enclosure and are accessible with the door open.
3. Knock-outs for ½" conduit are available on the top and bottom of the enclosure.

2-1.2 Electrical Connections

NOTE

A dedicated circuit breaker must be provided in the building within close proximity to the RASP12 and be clearly marked as the disconnecting device for this unit

1. Connect 120VAC to the terminal block input. The 120Vac input terminal block is located below the On/Off power switch.

   Left 120VAC Line
   Center Ground
   Right 120VAC Neutral

2. Connect the dry contacts to the designated terminal blocks.

NOTE

Inputs 1, 2, 3, 7, 8 and 9 are manufactured to accept normally open inputs only.

Inputs 4, 5, 6, 10, 11 and 12 can be configured to accept either normally open or normally closed inputs. A switch setting determines if inputs 4, 5 and 6 are all NO or all NC inputs. A second switch setting determines if inputs 10, 11 and 12 are all NO or all NC inputs.

TB1-1 Alarm in #1
TB1-2 Alarm in #1 Return
TB2-1 Alarm in #2
TB2-2 Alarm in #2 Return
TB3-1 Alarm in #3
TB3-2 Alarm in #3 Return
TB4-1 Alarm in #4
TB4-2 Alarm in #4 Return
TB5-1 Alarm in #5
TB5-2 Alarm in #5 Return
TB6-1 Alarm in #6
TB6-2 Alarm in #6 Return
TB7-1 Alarm in #7
TB7-2 Alarm in #7 Return
TB8-1 Alarm in #8
TB8-2 Alarm in #8 Return

TB9-1 Alarm in #9
TB9-2 Alarm in #9 Return
TB10-1 Alarm in #10
TB10-2 Alarm in #10 Return
TB11-1 Alarm in #11
TB11-2 Alarm in #11 Return
TB12-1 Alarm in #12
TB12-2 Alarm in #12 Return

3. Connect the summary alarm relay wires to TB13. N/O, N/C, Common labeling is with relay de-energized.

TB13-1 Summary Alarm N/O
TB13-2 Summary Alarm Common
TB13-3 Summary Alarm N/C

2-2 CONFIGURATION

The RASP12 has two boards on the inside of its door, a top board and a bottom board. Each board has an SW1. SW1 on the top board controls alarms 1 through 6. SW1 on the bottom board controls alarms 7 through 12. SW1 is configured by the manufacturer with preset options. These settings can be adjusted in the field.

Inputs can be configured to stay activated (latched) or only to be active when a leak or fault is present (unlatched). A latched alarm requires a manual reset of the system once a leak or cable problem is no longer present. An unlatched alarm resets itself once the condition that caused the alarm is no longer present.

2-2.1 Top Board Switch Positions

- SW1 Position 1: ON = Inputs 1-6 are unlatching.
- SW1 Position 1: OFF = Inputs 1-6 are latching.
- SW1 Postion 2: ON = Inputs 4, 5 and 6 are all configured for a Normally Closed contact.
- SW1 Postion 2: OFF = Inputs 4, 5 and 6 are all configured for a Normally Open contact.
- SW1 Postion 3: ON = Input 1 is a status input. Visual Alarm only. When input 1 is on the Alarm LED 1 will be on. Input 1 will not activate the alarm horn or the summary alarm output relay.
- SW1 Postion 3: OFF = Input 1 is an alarm input and operates the same as inputs 2-6.
- SW1 Postion 4: MUST BE SET TO ON.

2-2.2 Bottom Board Switch Positions

- SW1 Position 1: ON = Inputs 7-12 are unlatching.
- SW1 Position 1: OFF = Inputs 7-12 are latching.
- SW1 Postion 2: ON = Inputs 10, 11 and 12 are all configured for a Normally Closed contact.
- SW1 Postion 2: OFF = Inputs 10, 11 and 12 are all configured for a Normally Open contact.
- SW1 Postion 3: ON = Input 7 is a status input. Visual Alarm only. When input 7 is on the Alarm LED 1 will be on. Input 1 will not activate the alarm horn or the summary alarm output relay.
- SW1 Postion 3: OFF = Input 7 is an alarm input and operates the same as inputs 8-12.
- SW1 Postion 4: MUST BE SET TO ON.

For all SW1 settings:
Switches moved toward the ON letters on the switch housing are in the ON position. Switches moved toward the numbers on the switch housing are in the OFF position.

These switches
Are all OFF.

These switches are
All ON.

Figure 2-1: RASP12 Switch Positions

CHAPTER 3: GENERAL OPERATION

3-1 OPERATION

The RASP12 reports the closure of any dry contact from any device connected to the alarm input terminal block. When a contact closure is detected, the audible alarm sounds intermittently and the appropriate alarm LED flashes rapidly. The audible alarm is silenced by pressing the Quiet button. Any alarm LEDs that are flashing will then be steadily illuminated. In latching mode (SW1, Pos1 OFF), when the alarm clears and after the silence switch has been depressed, the Alarm LED stays on and slowly flashes. This state indicates a cleared but not reset alarm. In non-latching mode (SW1, Pos1 ON), when the alarm clears and after the silence switch has been depressed, the Alarm LED immediately turns off

3-2 FRONT PANEL SWITCH OPERATION

3-2.1 Test Switch

Momentary press of the test button will:

1. Turn on the audible alarm for 0.1 seconds.
2. Illuminate LEDs 1 and 7 for 0.1 seconds.
3. Illuminate LEDs 2 and 8 for 0.1 seconds.
4. Illuminate LEDs 3 and 9 for 0.1 seconds.
5. Illuminate LEDs 4 and 10 for 0.1 seconds.
6. Illuminate LEDs 5 and 11 for 0.1 seconds.
7. Illuminate LEDs 6 and 12 for 0.1 seconds.
8. Turn on the audible alarm for 0.1 seconds.

Holding the Test button on will:

1. Perform steps 1-8 above.
2. Turn on audible alarm
3. Illuminate all LEDs.
4. Energize the Summary Alarm Relay

3-2.2 Reset Switch

Clears all alarms and de-energizes the Summary Alarm relay. Inputs that are still active will re-alarm and the Summary Alarm relay will re-energize. Latching alarms cannot be reset until the Quiet button has been pressed.

3-2.3 Quiet Switch

A momentary press of the Quiet button silences the audible alarm. All alarms remain in their alarm states, but the audible alarm no longer sounds. The Summary Alarm relay remains energized.

Pressing the Quiet button for 2 seconds will silence the audible alarm and de-energizes the Summary Alarm relay.

The operator should press the quiet button only for a moment if the summary alarm relay is wired to a Falcon Monitoring System, building management systems or other monitoring equipment.

The operator should press the quiet button for 2 or more seconds if the summary alarm relay is wired to a remote alarm horn.

CHAPTER 4: TESTING

4-1 TESTING

The RASP12 can be tested through three different methods:

1. Depress the test switch.

2. Short the dry contact input terminal blocks one pair at a time. If the last three channels are programmed for normally closed contacts, remove one pair of wires to simulate the opening of the contact to produce an alarm.

3. Activate the dry contacts in the units being monitored.

If the audible alarm does not sound and the LEDs do not illuminate, check the power connections and be sure the Power On LED is illuminated. If power is supplied and the alarm LEDs still do not illuminate, contact RLE Technologies for service.

APPENDIX A: TECHNICAL SPECIFICATIONS

Power	85-264VAC 50/60Hz @ 500mA max.
Inputs	
Digital	12 NO/NC Dry Contacts Configurable with Jumpers in 3 Zone Segments (<50mA)
Outputs	
Relay	1 Dry Contact, Form C, 1A @ 24VDC, 0.5A resistive @ 120VAC
Alarm Notification	
Audible Alarm	70DBA @ 2' (0.6m)
Front Panel Interface	
LED Indicators	1 green Power (on/off) & 12 red Alarm
Push Buttons	1 Reset, 1 Quiet & 1 Test
Operating Environment	
Temperature	32º to 122ºF (0º to 50ºC)
Humidity	5% to 95% RH, non-condensing
Altitude	10,000' (3,048m) max.
Storage Environment	-4° to 158°F (-20° to 70°C)
Dimensions	12.0"W x 14.0"H x 4.0"D (305mmW x 356mmH x 101mmD)
Weight	12lbs (5.45kg)

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