

Shard

Glass Break Detection With True Noise Rejection



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The SHARD combines Dual Glass Break Detector technology with excellent detection performance, employing the newly developed microcontroller-based Noise Averaging process. It took one of the world's foremost manufacturers of detectors to come up with a superior Glass Break in both design and electronics. The Electronics Line Noise Averaging technique removes those unwanted background noises that may diminish the effectiveness of other glass break detectors, such as noisy air conditioners, aircraft, fans, bells, etc.

The SHARD utilizes highly evolved filtering algorithms to perform the complex task of determining the specific frequencies to analyze while ignoring similar sounds. This combination of proven technology and innovative techniques make the new SHARD the Glass Break Detector of choice.

Features

- Dual technology
- Microcontroller-based
- Noise Averaging
- 25 foot (8 meter) radius coverage
- Automatic ranging
- Electronic failure trouble indicator
- Communicator output on trouble
- Circuit supervision
- Automatic test termination
- Flush mount option
- Power up test
- Alarm memory LED

All these features provide for an outstanding combination of false alarm immunity and greater catch detection.

Electronic Circuit Test:

While in normal operation, if the SHARD Glass Break detector does not register any sound within a period of 17 hours, then it indicates that there may be a microphone or electronic circuit failure. This visual trouble indication is by means of a selectable flashing red LED.

Audible Circuit Test:

This feature is only available on the SHARD - XF25. If the SHARD has not detected any sounds for 17 hours, then the detector creates its own electronic tone by the use of an on-board piezo. If this tone is detected then no trouble indication will appear; however, if the tone is not registered the detector will provide a visual indication by means of a selectable flashing red LED. If the fault restores then this will automatically reset the unit and the 17-hour timer.

Communicator Trouble Output:

On the XF25 version, the trouble LED indication is accompanied by an output terminal which may be connected to a communicating device for remote monitoring of the detector's microphone and electronic circuitry.

Automatic Test Termination:

If the SHARD Glass Break detector is left in the test mode, then after 5 minutes the detector will automatically return to its normal operation mode, even with the test jumper connector still in place.

Power Up Test:

The SHARD incorporates this facility to fully test the device on applying 12 volts, which provides easier on-site testing. This option to select the test mode for 5 minutes is enabled by ensuring that the test jumper is in place before powering up the detector.

Low Voltage Indication:

In the event that the voltage to the detector drops below 9 VDC, the green LED will extinguish and the relay will change its state.

Memory Latch:

In the Memory mode of operation, if an alarm condition occurs then the red LED will remain on until power is interrupted, upon which the detector will reset.

Types of Glass Protected:

Omni-directional detection of Normal, Plated, Tempered, Laminated, Wired and Textured Glass.

Installation:

The SHARD may be wall (ideally adjacent or opposite the glass to be protected) or ceiling mounted, with a radius coverage of 25 feet (8 meters). Because the unit is already encased in its primary housing, no range loss is experienced when attaching the top cover. Where possible, try to keep a direct acoustic path between the detector and the glass.

Three LED's:

Red: Alarm Activation, Memory, Trouble
Green: Power
Amber: Test

SHARD SERIES	SHARD-SF25	SHARD-XF25
Range	25 ft. (8 m.)	25 ft. (8 m.)
Microcontroller-based	●	●
10-16 VDC	●	●
Current consumption (standby, +12Vdc)	26 mA	44 mA
Relay	N/C Form A	N/C & N/O Form C
Relay rating	10VA	
Operating temperature in C (F)	0-55° (32-131°)	60VA
Tamper switch (50mA/12Vdc)	●	0-55° (32-131°)
Alarm duration	3 seconds	●
Low voltage detection	9 volts	3 seconds
Memory latch	●	9 volts
Visual trouble indicator + circuit supervision	●	●
Communicator output on trouble - open collector transistor with 100ohm/0.25W series protection resistor Vce 0.3v max @ 50mA	●	●
17-hour periodic test	●	●
Fully enclosed PCB	●	●
Omni-directional detection	●	●
Detection of Normal, Plated, Tempered, Laminated, Wired and Textured glass	●	●
Noise averaging	●	●
Reverse polarity protection	●	●
Automatic test termination	●	●
5 year warranty	●	●
Size: H:10.5, L: 2.7, W: 5.7 (centimeters)	●	●
Size: H:4 1/8, L 1 1/16, W: 2 1/4 (inches)	●	●



www.electronics-line.com

International Sales:

Electronics Line 3000 Ltd.
2 Granit St.
Kiryat Arie Industrial Zone
POB 3253
Petah Tikva 49130 Israel
Tel: (+972-3) 918-1333
Fax: (+972-3) 922-0831
E-mail: sales@electronics-line.com

Sales in the USA:

1640 Range St.
Boulder, CO 80301
Tel: (800) 683-6835
Fax: (303) 938-8062
E-mail: sales@el-usa.com

Sales in the UK:

Unit 7, Levis Trading Estate
Station Road, Stechford
Birmingham B33 9AE
Tel: (+44-121) 789-8111
Fax: (+44-121) 789-8055
E-mail: info@elitesecurityproducts.com

Sales in France:

Zi 61 Rue Du Marche Rollay
94500 Champigny Sur Marne
Tel: (+33-1) 45.16.19.20
Fax: (+33-1) 45.16.19.29
E-mail: sectec@wanadoo.fr



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