

DESCRIPTION

GD 335 is a passive glass break detector glued on the glass surface. The detector is designed in the form of two-terminal component. It has to be connected to Control and Indication Equipment (CIE) or another specialized interface unit like IU 300, in alarm loop configured as EOL/NO (End-Of-Line – Normally Open).

EOL resistor has to be placed at the end of the alarm loop providing continuous analogue communication with CIE drawing fixed value of current.

The detector has high resistance in normal state and does not draw any current from EOL loop. It has a latching circuit lowering rapidly its internal resistance during alarm. Increase of current consumption from EOL loop is signalling intrusion to CIE.

It is specifically designed for surveillance of:

- shop-windows
- glass sliding doors
- single-glazed windows
- other vulnerable glass surfaces in public offices and private homes.

GD 335 complies with:

- EN 50131-2-7-2:2012, security grade 2
- EN 50130-5:2011, environmental class IIIA

FEATURES

- Detects glass break of float glass
- Large coverage area
- Very resistant to disturbances on the glass
- No sensitivity adjustment
- Ideal for 24-hour loop perimeter protection
- Leads are polarity independent
- Low current consumption
- Completely sealed plastic casing

OPERATING PRINCIPLE

GD 335 is equipped with a piezoelectric sensor that detects mechanical waves propagating in the glass pane. During glass breakage, a very short vibration pulse with high amplitude and very high frequency contents is generated and propagates with high speed in the glass. This pulse triggers the detector, changing its voltage/current characteristics.

- Detector has high resistance in normal state and practically does not draw current from EOL loop
- Detector draws maximum of 7.5 mA in alarm state from EOL loop signalling intrusion to CIE

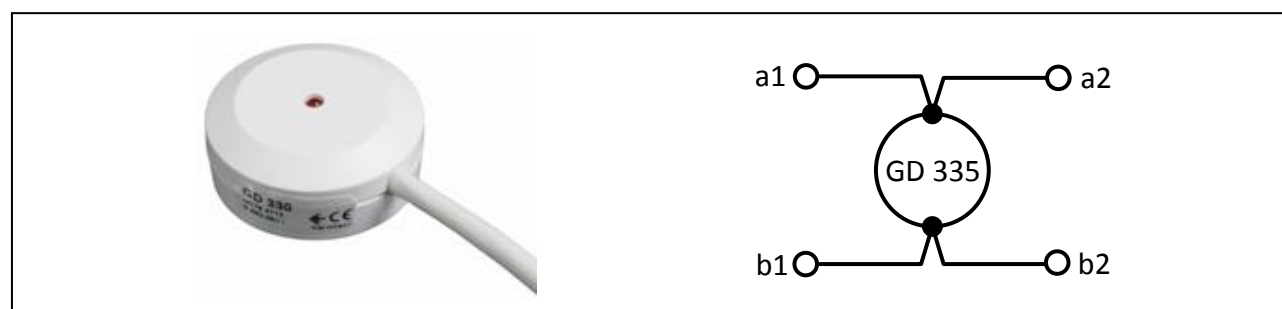
WIRING

#	Signal	Wire colour code	Function	Description
1	a1	White	Terminal a: (-) or (+)	Terminal a (a1, a2 - shorted)
2	a2	White	Terminal a: (-) or (+)	
3	b1	White	Terminal b: (+) or (-)	Terminal b (b1, b2 - shorted)
4	b2	White	Terminal b: (+) or (-)	

Wire identification hints:

- Shorted wires are marked with an additional small label
- Shorted lines be also easily identified with the help of ohm-meter, as both pairs consist of 2 wires shorted inside detector

CIRCUIT DIAGRAM



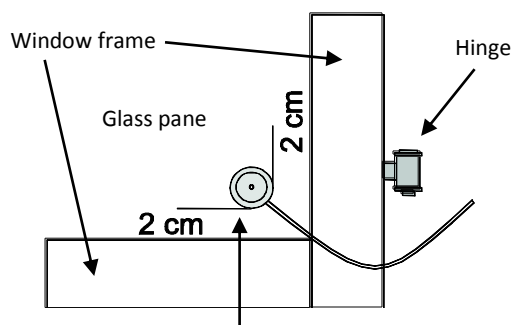
INSTALLATION

Warning #1: correct gluing of the detector is vital for its function. Follow the installation instructions carefully.

Warning #2: GDK 100 adhesive kit must be used for safe installation.

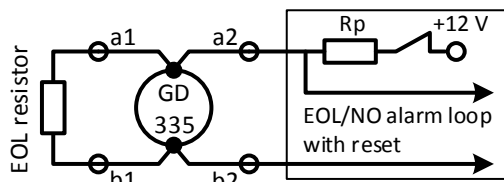
Procedure:

1. Before installation, test the detector using GVT-500 or GVT-5000 tester. Use the 12 V output of the GVT-5000 tester to test the detector.
2. Select the spot on the window pane if possible at about 5 cm distances from the frame. Distance between the detector and the frame must not be lower than 20 mm.

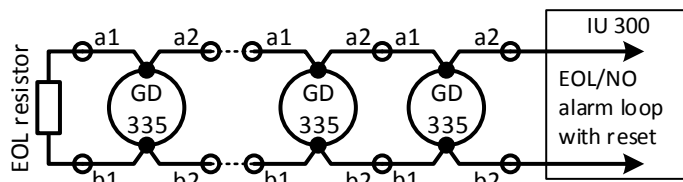


Minimum distances between detector and window

3. Clean the glass surface with the cleaning solvent (bottle no. 1). Let the surface dry.
4. Apply the enclosed sticker template for precise installation.
5. Clean the detector's bottom surface with the brown graining pad to remove any grease.



Connection to CIE input



Connection to Interface Unit

6. Apply activator (bottle no. 2) on the bottom surface of the detector and on the installation spot. The sticker template (if used) will prevent staining the glass outside the installation area. Let the surfaces dry for 1-2 minutes.
7. Place a small drop of glue (bottle no. 3) in the centre of the detector's bottom surface and spread it evenly in a thin layer with enclosed triangular spatula. A thin layer is very important for a good and fast bond.
8. Press and hold the detector against the glass surface on the selected spot until you feel it adheres. (10 sec).
9. Let the glue harden for another 5 minutes before you start working with the cables.
10. Remove the surplus glue from the side of the detector using the triangular spatula. Remove the sticker template (if used).

CONNECTION TO CONTROL AND INDICATION EQUIPMENT

Warning #3: the alarm loop with GD 335 detector(s) has to be terminated with an EOL resistor. Only EOL configuration enables transmission of all events from GD 335 detector to Control and Indication Equipment required by EN50131-2-7-2:2012 Grade 2.

GD 335 can be connected to CIE input directly – one detector to one input. Alarm loop has to be configured as EOL/NO and terminated with proper EOL resistor. Alarm loop should be able to reset.

GD335 can be also connected to CIE with the help of IU 300 interface unit. IU 300 provides EOL/NO configuration and up to 10 GD 335 detectors on the loop can be connected to one IU 300 unit.

TECHNICAL DATA

Type of protected glass	float
Standard glass thickness	4 mm
Detection radius	2 m
Voltage range across detector in EOL loop	4 – 15 VDC
Max. voltage ripple	2 Vpp at 12 V
Current consumption quiescent	Max. 5 µA
Current consumption in alarm state	Max. 7.5 mA
Alarm output	Current flowing through detector
Alarm indication	LED
Alarm hold time	Latching
Alarm reset	EOL loop voltage across detector below 2 V
Cable	3 m, ϕ 3,2 mm, 4x0,14 mm ²
Environmental class (EN50130-5:2011)	IIIA
Operating temperature range	-40°C to +55°C
Operating humidity	max. 95% RH
Housing material	plastic ABS
Dimensions:	Φ 27x11 mm
Security grade (EN50131-2-7-2:2012)	2
Approvals	SBSC, VdS, INCERT and others