

GB-5000 Series

Glass Break Detectors

VANDERBILT



The new EN 50131-2-7-2 approved glass break detectors series GB-5000 offers a wide variety of products with the following features:

- Large coverage area
- Low current consumption
- Visual alarm indication
- Versions with either current or relay outputs
- Version for laminated glass

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Functionalities

Application

The passive electronic glass break detectors of the GB-5000 series serve for reliable monitoring of glass panes such as windows, shop windows, glass doors, etc. for breakage.

Function

Any breaking of glass panes produces vibrations which propagate in the glass as mechanical oscillations. These oscillations are received and are converted into electric signals by the piezo ceramic sensor of the detector. The frequencies typical of breaking glass are amplified by the detector electronics in which the signals thus conditioned are evaluated for alarm triggering. The detectors of the GB-5300 and GB-5700 series can be connected to any intruder alarm control panels whose monitored detection line will respond to a change in current. The detectors are then supplied via the detection line. Those intruder alarm control units whose detection lines will not respond to a change in current allow either connection of the GB-5300 and GB-5700 series detectors via the GB-5000-IN relay interface unit, or else direct connection of the GB-5100 series detectors with relay output. The relay interface unit monitors the glass break detector line for any changes in current, and in case of an alarm uses a relay contact to interrupt the detection line of the control unit. The glass break detectors of the GB-5000 series are insensitive to any environmental interferences.

Installation

The glass break-detector must be glued at the pane of glass with glueset from LOCTITE (see accessories). The bottom of the glass break-detector and the joint-area must be cleaned and degreased (with spirit or methylalcohol).

Functional check

The function of the glass break-detector can be tested after the installation with the glass break testing unit GB-5000-TE.

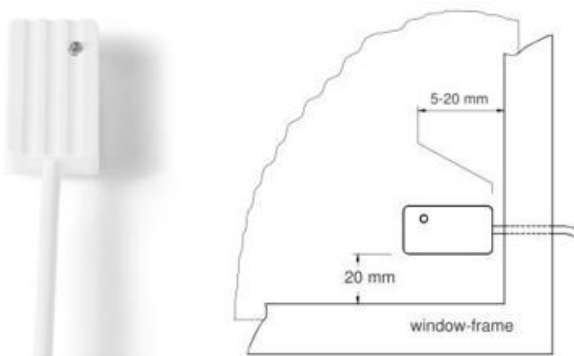
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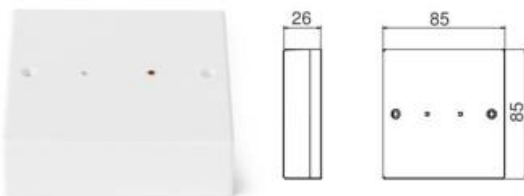
GB-5100, GB-5300, GB-5700



GB-5000-TE



GB-5000-IN



GB-5000-AD



GB-5000-AD-LAM



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| Technical Data | GB-5100 | GB-5300 | GB5700 | GB-5000-IN |
|------------------------------|-----------------|----------------------|----------------------|---------------|
| Voltage | 8 – 18 V DC | 3 – 16 V DC | 3 – 16 V DC | 10 – 15 V DC |
| Closed-circuit Current | 0.6 mA | <1 μ A (~ 20 nA) | <1 μ A (~ 20 nA) | 5 mA |
| Operating current released | 5 mA (12 V) | 4 mA (6 V) | 3.5 mA (6 V) | 13.5 mA |
| Reset Timer | Max. 2 V | Max. 1 V | Max. 1 V | |
| Operating range | Radius 2 m | Radius 2 m | Radius 2 m | |
| Housing dimension | 37 x 19 x 12 mm | 37 x 19 x 12 mm | 37 x 19 x 12 mm | |
| Switching voltage | Max. 24 V DC | | | Max. 24 V DC |
| Switching current | Max. 200 mA | | | Max. 200 mA |
| Switching power | Max. 300 mW | | | Max. 300 mW |
| Housing material | S-B | S-B | S-B | S-B, A-B-S |
| Temperature range | -25°C to 70°C | -25°C to 70°C | -25°C to 70°C | -30°C to 60°C |
| Housing protection | IP67 | IP67 | IP67 | |
| Environmental class VdS / EN | III | III | III | II |
| Approvals | VdS, SBSC | VdS, SBSC | EN, SBSC | VdS |

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| Ordering Information | | | |
|----------------------|------------------|--|----------|
| Type | Order No. | Description | Weight |
| GB-5100-2 | V54535-F101-A100 | Glass break detector with relay output, 2 m cable | 0.058 kg |
| GB-5100-6 | V54535-F101-A200 | Glass break detector with relay output, 6 m cable | 0.145 kg |
| GB-5300-2 | V54535-F102-A100 | Glass break detector, 2 m cable | 0.047 kg |
| GB-5300-6 | V54535-F102-A200 | Glass break detector, 6 m cable | 0.107 kg |
| GB-5300-10 | V54535-F102-A300 | Glass break detector, 10 m cable | 0.167 kg |
| GB-5700-2 | V54535-F103-A100 | Glass break detector for laminated glass, 2 m cable | 0.047 kg |
| GB-5700-6 | V54535-F103-A200 | Glass break detector for laminated glass, 6 m cable | 0.107 kg |
| GB-5700-10 | V54535-F103-A300 | Glass break detector for laminated glass, 10 m cable | 0.167 kg |
| GB-5000-AD | N54535-N102-A100 | Cleaning- / Adhesive set for GB-5100 and GB-5300 | 0.136 kg |
| GB-5000-AD-LAM | V54535-N103-A100 | Cleaning-/ Adhesive set for GB-5700 | 0.082 kg |
| GB-5000-TE | N54535-N101-A100 | Testing unit for glass break detectors | 0.300 kg |
| GB-5000-IN | V54550-F112-A100 | Relay interfaces for GB-5300 and GB5700 | 0.08 kg |

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