Glass Break Sensor
SPGS

SPGS

VSM 7089.93
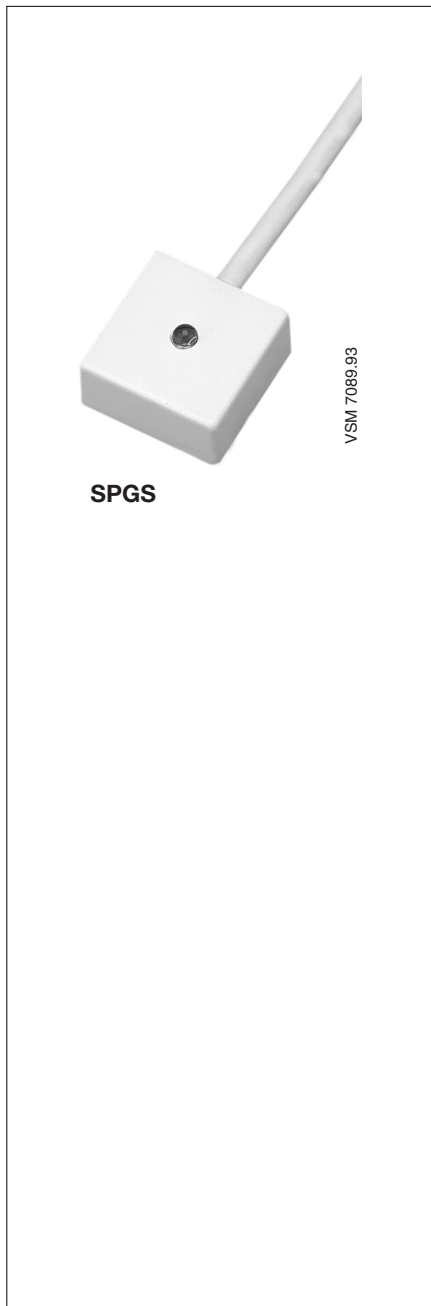
Application
The electronic glass break sensor is used to monitor the glass surfaces of windows and doors. The passive glass break sensor must be mounted on double glazing windows out of reach.

Function
The piezoelectric microphone registers the typical vibrations that are caused by forcible damage to a pane of glass.

Design
The monitoring sensor and the electronic evaluation unit are encased in a plastic housing together with the connection cable and sealed with moulding resin for protection against climatic influences. Since the 4 cores of the connection cable are identical in colour, the detector is tamper-proof.

The detector contains an alarm indicator.

Installation
The glass break sensor is attached to the pane at a minimum distance of 2 cm away from the frame. It must be mounted so that it can be easily seen if the sensor becomes detached from the pane, i.e., it is not permitted to route the cable from above. The sensor must be secured with Loctite adhesive LKS (VdS). The adhesive surfaces on the sensor and the pane must be carefully cleaned and degreased. The ceramic disc of the detector must not be put under stress through rubbing, scratching or mechanical shocks. The adhesive surface on the pane of glass is moistened with a wetting agent and the air must be extracted. The adhesive is applied thinly to the glass break sensor and the detector is then pressed onto the pane for 30 seconds. Detailed instructions on using the adhesive are supplied with the product.

Glass structures, glass with a covering, for example, of protective film, safety glass (security glass) and glass with a wire insert are not suitable for monitoring with the SPGS.

The cable should be led in a straight line for approx. 2 cm at the output of the detector. A kink in the cable in the direct vicinity of the detector should be avoided.

Effective radius
The maximum effective radius for the SPGS is 2 m for a pane of glass that is 2 … 15 mm thick. The electronic glass-breakage test device GP1 can be used for functional testing of the installed device, whereby the transmitter is pressed onto the pane in the immediate vicinity of the GP1.

CAUTION: When the device is connected directly to 12 V for testing, it should only be operated with a series resistor of 2.7 kΩ as otherwise the sensor may be damaged.

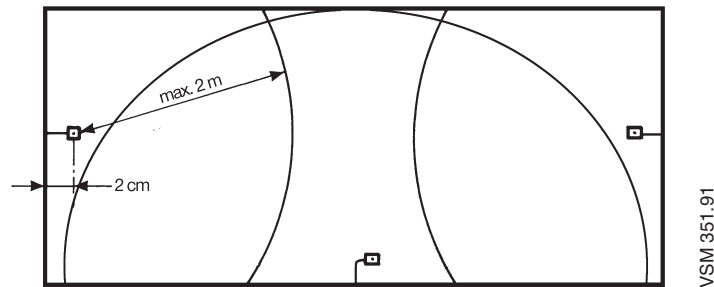**ABB**

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Wiring diagram

2 adjacent cores are routed to the alarm panel zone or circuit and the two remaining core are led to the next detector. A maximum of 10 glass break sensors can be installed in an intrusion circuit.

The EOL resistor is soldered behind the last sensor.

| Alarm panel | First sensor | Final sensor | End of line resistor 2.7 kΩ |

VSM 350.91
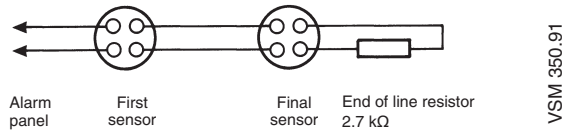
Installation example

Monitoring a pane of glass from a display window measuring 4.5 x 2 m

max. 2 m

2 cm

VSM 351.91

Technical data

Operational voltage on connection to a zone input	4 … 15 V
Power consumption	Standby max. 1 µA Alarm max. 5 mA
Dimensions (H x W x D)	18 x 18 x 9 mm
Cable length	5 m
Effective radius	max. 2 m for a pane of glass measuring 2 …. 15 mm thick
Ambient temperature	-20°C to +50°C
Environmental class	II

Ordering information

Description	Short code	Product code EAN	bbn 4013232	Weight 1 Pc. (kg)	Pack. (Pc.)
Glass Break white Sensor brown **VdS no. G 194524**	**SPGS/W** **SPGS/B**	GH V922 0004 V0009 GH V922 0004 V0010	**61420 0** **61430 9**	0.08 0.08	1 1
Loctite adhesive	**LKS**	GH Q400 1906 R0001	**39280 1**	0.3	1
Electronic glass-breakage test device	**GP1**	GH V922 0004 V0003	**66680 3**	0.2	1

ABB

The information contained in this publication is subject to change without further notice.