

ES400

Vibration Detector

VANDERBILT



Key Features include:

- High sensitivity
- Effective on a wide variety of materials
- High immunity to environmental disturbances
- Microprocessor-assisted signal evaluation
- Adjustable sensitivity
- Supply voltage monitoring
- Low current consumption
- Ease of installation

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Application

The vibration detector is used on windows, doors, walls, ceilings and floors for early detection of burglary attempts. For enhanced detection reliability, the vibration detector can be used in combination with glass-break detectors and magnet contacts.

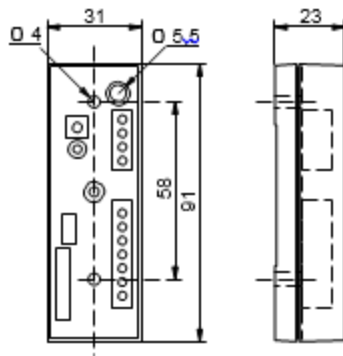
Operation

The vibration detector incorporates a piezoelectric sensor which reacts only to high-frequency structure-borne vibrations or to single, powerful impacts. Any signals detected are reliably and safely analysed by means of a microprocessor triggering an alarm. Sensitivity can be selected on a potentiometer, and the counter channel can be programmed for 1 to 4 impacts. The vibration detector incorporates a first and subsequent alarm memory. The LED/resetting can be remotely controlled via the DAY/NIGHT function. Moreover, there is a choice between automatic reset and reset by interruption of the operating voltage. The detector features supply voltage monitoring which will trigger an alarm at $<7V$. The tamper contact provides protection against opening the cover. The alarm relay is protected against external magnetic fields.

Installation

The vibration detector is screws onto the surface to be monitored, for example, on window frames, brick or concrete walls, or metal doors. The coverage area varies with the type of material. For performance and installation checks, use the EST400 test tool.

Dimensions



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■ Technical Data

Supply voltage (nom. 12V) - Max. ripple (0...1MHz)	8...15VDC 2Vss
Current consumption - At 12VDC / quiescent - At alarm	6mA 10mA
Frequency range	1...7kHz
Alarm output - Electronic relay - Contact rating - Alarm hold time - Alarm memory/Test indicator	33Ω in series 25VDC / 100mA 2s LED
Tamper monitoring - Cover contact	Microswitch 25VDC /100mA
Control inputs - For testing - For unset/set input	LOW <3V/HIGH >6V LOW <3V/HIGH >6V
Coverage area (approximate values) - Steel/Wood/Plywood - Brick/Paving stone - Concrete	Radius 3m Radius 2m Radius 1m
Sensitivity	Adjustable on potentiometer
Pulse counter	1...4 impacts selectable
Ambient conditions - Storage temperature - Operating temperature - Humidity of the air, DIN 40040 - IEC 529 housing protection - Immunity to HF interference fields - (0.1MHz...1GHz)	-20°...+50°C -20°...+50°C Class F (max. 95% rel.) IP31 <15V/m

■ Accessories

Type	Art No	Description	Weight
EST400	NBPZ:4726120001	Test tool for ES400	0.080Kg
ESC400	N54534-Z107-A100	Metal cover for ESC400	0.108Kg
ESM400	N54534-Z106-A100	Mounting plate for steel/Concrete for ES400	0.066Kg
ESK400	N54534-Z108-A100	Outdoor housing for ES400	0.103Kg

■ Details for ordering

Type	Art No	Description	Weight
ES400	NBPZ:5370490001	Vibration detector, white	0.045kg