BOSCH
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DS1525 and DS1535 Surface Mount Seismic Detectors

- **Three detection systems**
- **Solid state relay output**
- **Adjustable sensitivity**
- **Multi-point tamper protection**
- **Internal and remote test capability**
- **Surface or recess mountable**

The seismic detector series uses three distinct detection systems to detect attack from heavy objects, drilling, or explosion.

The DS1525 Detector is designed for use with vaults and safes. The DS1535 Detector is designed for use with ATM machines or other reinforced areas such as night deposit boxes, data storage cabinets, and filing cabinets.

Certifications and Approvals

Region	Certification	
USA	UL	DS1525 and DS1535: ANSR: Intrusion Detection Units (UL639), ANSR7: Intrusion Detection Units Certified for Canada (cULus)

Functions

Signal Processing

- A threshold detector responds to high-amplitude signals with short duration (explosions).
- A window counter measures the duration, quantity and amplitude of intermittent knock signals (a hammer and chisel).
- A frequency analysis circuit responds to low-amplitude long-duration signals (drilling or thermic lance).
- Sensitivity is field adjustable. Installers can customize the protection for each application.

Installation/Configuration Notes

- This coverage radius information is based on the type of material protected, the sensitivity setting, and the method of attack.
- A single detector may be used to protect a safe or ATM if:
  - a) no one wall of the safe or ATM is longer or taller than 1.2 m (4 ft);
  - b) the detection radius listed here provides sufficient coverage of the entire unit to be protected.
- The table shows the maximum protection radius for torch, drilling, and mechanical attack methods at the various mounting locations on the unit to be protected. The ranges shown are guidelines only. Test and verify the operation of the detectors immediately following installation. Coverage radius listed in meters (feet).

Material	Sensitivity Setting	Cutting Torch	Diamond Disk	Drilling
Concrete	1	4 (13)	14 (46)	14 (46)
Steel	1	8 (26)	14 (46)	14 (46)
Brick	1	3 (10)	8 (26)	8 (26)
Concrete	2	3 (10)	9 (29)	9 (29)
Steel	2	4 (13)	9 (29)	9 (29)
Brick	2	3 (10)	6 (19)	6 (19)
Concrete	3	2 (6)	6 (19)	6 (19)
Steel	3	2 (6)	4 (13)	4 (13)
Brick	3	--	4 (13)	4 (13)
Concrete	4	1.3 (4)	3 (10)	5 (16)
Steel	4	1.3 (4)	3 (10)	5 (16)
Brick	4	1.3 (4)	--	3 (10)
Concrete	5	--	4 (13)	4 (13)
Steel	5	--	4 (13)	4 (13)
Brick	5	--	2 (6)	2 (6)

Note Concrete is type K-350 (or equivalent). The vault, safe, and ATM ratings apply to the following minimum material thickness: Concrete 25.4 cm (10 in.); Steel: 0.635 cm (0.25 in.); Brick: 20.3 cm (8 in.)

Technical Specifications

Enclosure Design

Dimensions:	10 cm x 8 cm x 3.3 cm (3.9 in. x 3.2 in. x 1.3 in.)
Material:	Low profile, high impact cast aluminum enclosure.

Environmental Considerations

Operating Temperature:	-40°C to +49°C (-40°F to +120°F) *For UL Certificated installations, 0°C to +49° (+32°F to +120°F C)*
Radio Frequency Interference (RFI) Immunity:	No alarm or setup on critical frequencies in the range from 26 MHz to 950 MHz at 50 V/m.

Mounting

Location:	Surface mount

Outputs

Alarm:	Form C solid state alarm relay. Rated at 100 mA at 28 VDC.
Tamper:	Normally-closed tamper contacts. Contacts rated at 28 VDC, 100 mA maximum. Multipoint tamper sensing system detects removal of cover, removal of the unit from the mounting surface, and attempts to burn the detector.
Trouble:	Solid state output, shorts to ground (-) when the detector is in a supervision trouble condition. Maximum current load is 25 mA Vsat at 10 mA = 0.5 VDC.

Power Requirements

Current:	10 mA maximum at 12 VDC
Ripple:	2 V p-p maximum
Voltage:	9 VDC or 15 VDC

Ordering Information

DS1525 Detector Designed for use with vaults and safes.	**DS1525**
DS1535 Detector Designed for use with ATM machines, night deposit boxes, data storage cabinets, filing cabinets, or other reinforced areas.	**DS1535**
Accessories	
TT1500 Test Transmitter Test transmitter for DS1525 and DS1535 Surface Mount Seismic Detectors.	**TT1500**
MP1500 Mounting Plate Mounting plate designed for use on concrete walls.	**MP1500**

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