

ES470

Shock and Vibration sensor



Overview:

The ES470 is an EN Grade 3 combined shock and vibration sensor with three in-dependent channels for detection – integration, counting and gross attack. The ES470 provides reliable monitoring against attacks with electric and/or mechanical tools. The ES470 monitors the protected surface using a piezo with a special broad spectrum of signals and amplitude to reliably detect an attack profile. The ES470 is equipped with DIP switches to adjust the sensitivity to optimise the detection capabilities of the sensor.

The ES470 can be used on numerous surfaces, which include wood, glass, plywood, brick, plater, steel and concrete. The MP 550 mounting plate must be used when installing the ES470 on brick, concrete or plaster. The ES470 can be tested using the EST400 Test Tool.

Features & Benefits:

- ✓ Independent relays for alarm & tamper
- ✓ Polarity independent for ease of connection
- ✓ 3 independent detection channels
- ✓ Detection radius up to 3m
- ✓ Sensitivity adjustment
- ✓ Suitable for 24-hour monitoring
- ✓ Day/Night LED control



VANDERBILT

DOC ID: I-200430

Edition date: 25-03-2021



ES470

Shock and Vibration sensor

Approvals:

The ES470 has the following approvals as a Grade 3 as a shock & vibration sensor.:

- ✓ EN50131-2-8:2016 G3
- ✓ SSF1014:2016-03 VdS
- ✓ Class B - pending



Detection Radius:

(Notes)

1. Use the MP 550 for brick & concrete applications.
2. Final detection radius must be confirmed by practical tests.
3. The smoother and cleaner the detection surface, the better the detection radius.

Material Type	Wood/Glass/Plywood	Brick	Steel/Concrete
Detection Radius	2m	1m	3m

Settings:

Sensitivity Settings (1 – lowest – 8 = highest setting)								
DIP	1	2	3	4	5	6	7	8
1	OFF	Off	OFF	OFF	ON	ON	ON	OM
2	OFF	OFF	ON	ON	OFF	OFF	ON	ON
3	OFF	ON	OFF	ON	OFF	ON	OFF	ON

DIP	Counting Channel (number of impacts)		DIP	Saw Integration Channel		DIP	Auto-reset of Alarm	
4	3	6	5	Channel Off	Channel On	6	Off	On
	OFF	ON		OFF	ON		Alarm latches	Alarm resets after 4 seconds



ES470

Shock and Vibration sensor

Technical Data

Input voltage	8-15 vdc (day Mode) (night mode 6 vdc)
Quiescent current @ 12vdc	8.0 mA
Alarm Current @ 12vdc	7.1 mA
Alarm & tamper output	Normally closed relays rated at 50 vdc / 120 mA
Indication	Red LED for alarm (Day/night controlled)
Alarm latch	Yes or 4s with auto-reset
Alarm reset	<1 vdc
Tamper protection	Lid removal
Low voltage	Flashing red LED when <5 vdc
Environmental Class	II
Operating temperature	-40° C to +55 ° C



Ordering Information:

Art. No.	Description
V54543-Z109-A100	ES470 Shock and vibration sensor
N54534-Z110-A100	MP 550 mounting plate for ES470
NBPZ:4726120001	EST400 Test Tool for ES400/ES470

VANDERBILT

DOC ID: I-200430
Edition date: 25-03-2021