SN-SPCP-FWL1

DETECTOR FOR WALLS

SPC PRO
INDOOR DUAL-TECH SHOCK SENSORS

DSF
DEA SENSOR FUSION TECHNOLOGY

8 033123 122702

P/N	SN-SPCP-FWL1

DESCRIPTION

DEA Sensor Fusion (DSF) addressed shock detector for the protection of any type of wall against **low attacks**, **gross attacks**, **heavy attacks** and **continuous impacts**. DSF technology combines the robustness and reliability of the piezoelectric transducer and the MEMS accelerometer with an integrated electronics which guarantees timely detection and sensor adjustment.

Configuration and calibration are performed by a Wi-fi dongle (DG-DEA-WF2) to connect to the detector and a **mobile APP** (iOS/Android).

PACKAGE CONTENTS

In addition to the datasheet herein, the package contains:
- 1 no sensor
- 4 no round head self-tapping screws 2,5 x 95 mm and plugs
- 2 no cable glands and 2 no cable-housing grommet
- 1 no unlocking tool
- 1 no mini screwdriver

COVERAGE AREA

The detector varies its performance depending on the material of the protected structure. Under custom mode, the coverage area results to be:

STRUCTURE	SENSOR MAXIMUM DISTANCE	COVERAGE AREA
ARMOURED CONCRETE WALL (45 CM MIN. THICKNESS)	6 m	46 m²
ARMOURED CONCRETE WALL (20 CM MIN. THICKNESS)	5 m	31 m²
DOUBLE UNI WALL (30 CM MIN. THICKNESS)	4 m	20 m²
TUFF WALL (30 CM MIN. THICKNESS)	3 m	11 m²

COVERAGE AREA

sensor distance
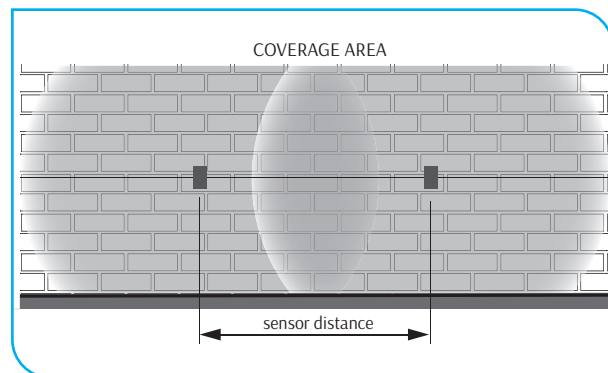
COMPLIANCE

- **DIRECTIVE 2014/30/UE (EMC)**
  - EN 50130-4:2011+A1:2014
  - EN 61000-6-3:2007+A1:2011
- **DIRECTIVE 2011/65/UE (ROHS)**
  - EN 50581:2012

CE Pb lead-free RoHS ✓

TECHNICAL FEATRURES

SECURITY GRADING:	Grade 3 (in accordance with EN 50131-2-8)	
ENVIRONMENTAL CLASS:	Class II (in accordance with EN 50131)	
DIMENSIONS:	89 x 89 x 20 mm (L x H x D)	
PACK DIMENSIONS:	90 x 130 x 35 mm (L x H x D)	
GROSS WEIGHT:	72 g	
NET WEIGHT:	53 g	
CASE MATERIAL:	ABS	
COLOUR:	white	
POWER SUPPLY:	12 Vdc (±25%) (nominal)	
	8V (low supply voltage)	
CURRENT:	25 mA	
	37 mA max (during calibration)	
OPERATING TEMPERATURE:	-20 °C ÷ +70 °C (not certified)	
RELATIVE HUMIDITY:	<95% non condensing	
IP RATING:	IP40	
FUNCTIONS AND DEVICES:	anti-removal and anti-opening tamper	
INPUTS:	Reset and ARM (for alarm memory)	
OUTPUTS (NC):		
	‣ alarm line (continuous impacts, low attacks, gross attacks and heavy attacks)	
	‣ power fail	
	‣ tamper line	
COMMUNICATION:	connector for Wi-Fi dongle	
AVERAGE COVERAGE AREA:	4 m² (custom mode)	
CONFIGURATION VIA SPC PRO APP		
MOBILE APP LICENCE (IOS/ANDROID) INCLUDED		

(*) Can vary depending on the dimension, material and type of structure.

DIMENSIONAL SCHEME

89 · 89 · 20 · 65 · 65
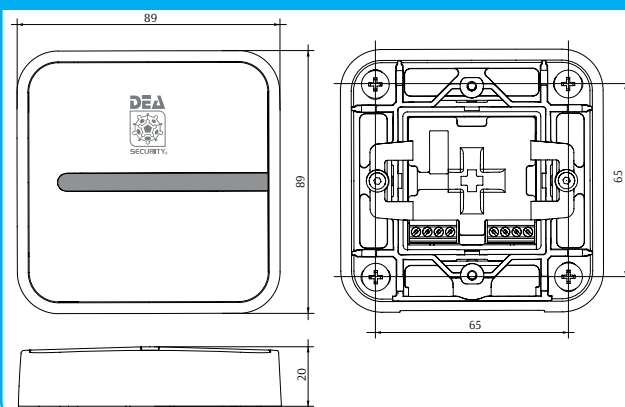
APPLICATION EXAMPLE

SPCPRO APP (Android version) must be downloaded on *www.deasecurity.com/shorturl/1a1he* or scanning QRCODE.
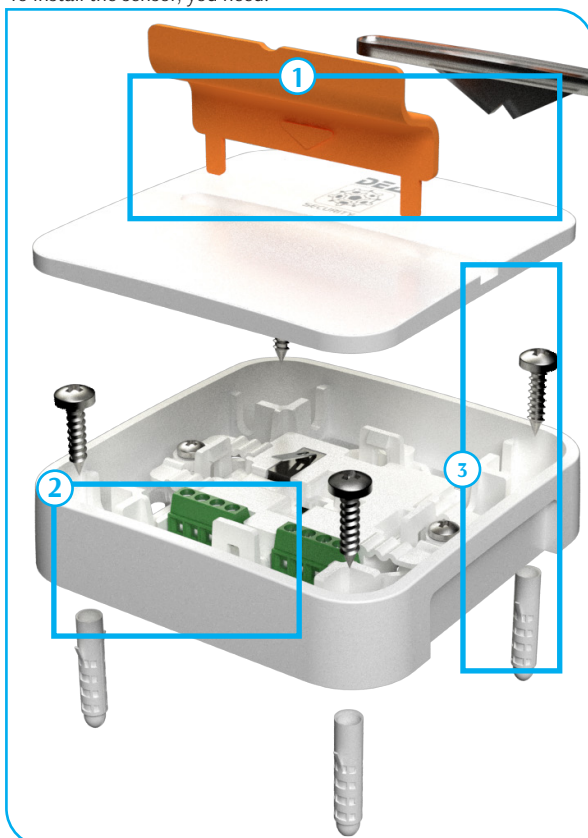
DOWNLOAD APP

INSTALLATION

To install the sensor, you need:

1. To open the detector, put off the light guide on the cover (1), insert the unlocking tool in the two holes and raise the cover;
2. make the connection cable pass through the holes present on the base of the sensor or on the side with the hollow, opening the pierced sections. In this case:
   ‣ insert the cable in the cable gland supplied, with the body towards the inside of the sensor, slotting it in the pierced section of the sensor;
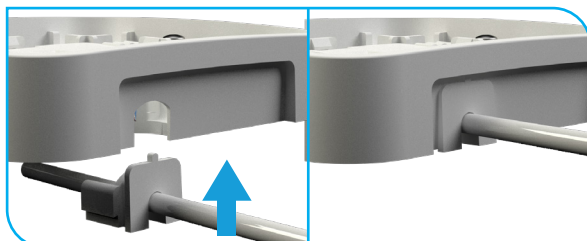
   ‣ if flexible metal tube is used, turn the body of the cable gland outwards, insert the cable in the cable gland slotting it in the pierced section of the sensor. Insert the special cover on the external side, using the joint of the cable gland;
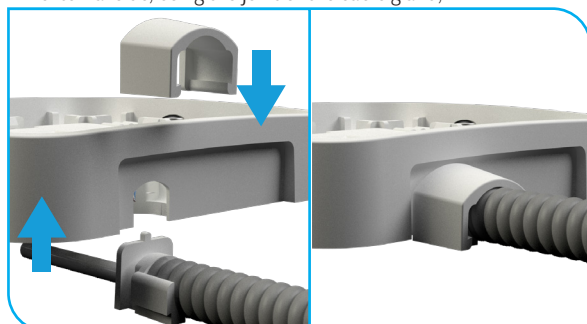

3. fix the sensor to the wall with the screws and the plugs supplied;
4. wire the terminal board;
5. if the surface of the structure to protect is irregular, use FP-FWL metal plate to be wall mounted with a single central screw. If the sensor is installed on reinforced metal structures, the plate shall be welded in the 4 dedicated eyelets.

CONNECTIONS

The detector is equipped with a 8-way terminal block: 12 VDC power supply (1 and 2), optional RESET and ARM inputs (3 and 4), alarm output (5 and 6) and tamper output (7 and 8).

POWER SUPPLY
12 V$_{DC}$ (+/-25%)
ARM memory
RESET input

TAMPER output
ALARM output and POWER fail
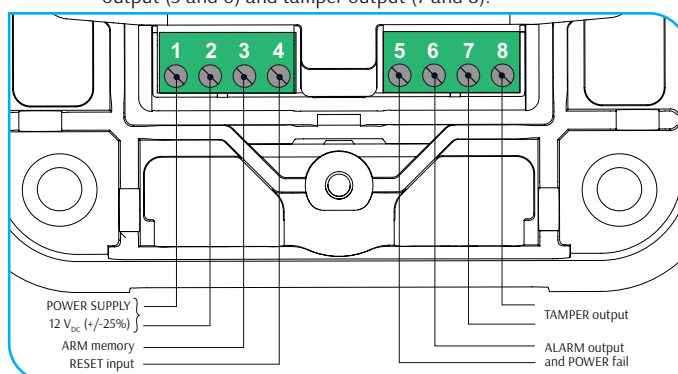
⚠️ *CONNECTIONS BETWEEN OUTPUTS AND CONTROL PANEL MUST BE PERFORMED USING A SHIELDED CABLE*

⚠️ *AFTER POWERING THE SENSOR, WAIT FOR THE INITIALIZATION FUNCTIONAL CHECKS. AT THIS STAGE THE SENSOR MUST BE FIXED. ONCE INITIALIZATION IS COMPLETE, THE LED SIGNALS CORRECT OPERATION (BLUE FLASHES) OR MALFUNCTIONS (MAGENTA FLASHES).*

CALIBRATION

Calibration and configuration of the system occurs by means of SPC PRO app for iOS/Android devices and the Wi-Fi dongle connected to the detector (please see DG-DEA-WF2 technical datasheet).
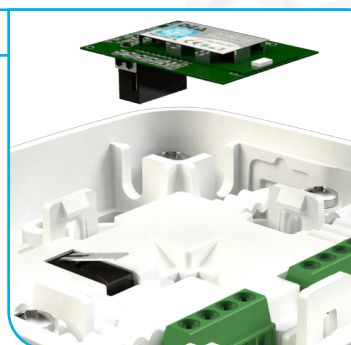
■ **WI-FI CONNECTION**

To establish communication between device (smartphone, tablet) and detector, you need to follow the following steps:
‣ iinsert DG-DEA-WF2 dongle in the detector;
‣ activate a Wi-Fi communication on the device used;
‣ connect to **DEA SECURITY Wi-Fi network**;
‣ execute **SPCPRO** application;
‣ connect to the detector by clicking on Connection;
‣ insert password "**123456**".

■ **HOME APP**

In home you can check the information about the detector status (1, 2, 3 and 5) and/or start calibration actions (4):
1. firmware and parameter version;
2. save configuration;
3. monitor power supply;
4. modify configuration and various options;
5. sensor status icons.

By clicking on the icon **Settings**, it is possible to enter configuration and calibration sections.

■ **CALIBRATION TO EN 50131-2-8**

It is possible choose three presets corresponding to three **settings EN50131-2-8** compliant:
‣ window (general structure with glass, default set);
‣ wood (wooden plate);
‣ concrete (concrete plate).

After selecting the desired preset with the right arrow (see picture), you go to **Other options**.
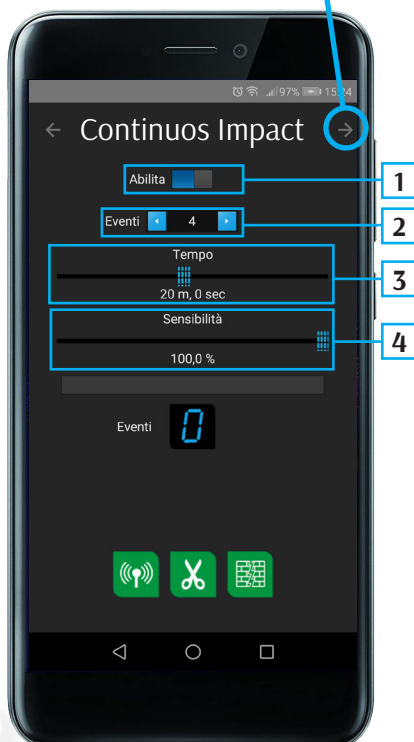
▪ **CUSTOM CALIBRATION**
Custom mode enables you to customize the calibration depending on the different intrusion techniques and to better fit the structure to protect. After selecting Custom setting with the right arrow (see picture), you go to calibration.

▪ **CONTINUOUS IMPACTS**
Custom mode enables you to customize the calibration depending on the different intrusion techniques and to better fit the structure to protect.

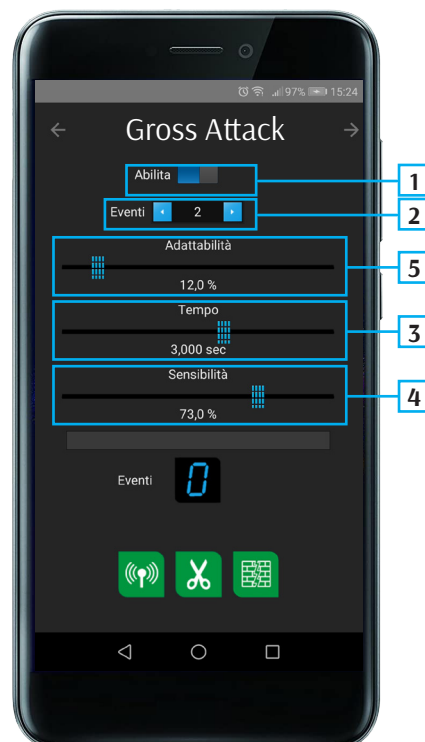After selecting Custom setting with the right arrow (see picture), you go to calibration.

1. enable detection CONTINUOUS IMPACTS;
2. set the event number desired (series of continuous impacts) to trigger the alarm;
3. set the memory time of the event counting;
4. the default sensitivity is suitable for most of the structures. If needed, it can be adjusted from minimum (0) to maximum (100).

Continuos Impact

Abilita	**1**
Eventi ◄ 4 ►	**2**
Tempo / 20 m, 0 sec	**3**
Sensibilità / 100,0 %	**4**
Eventi **0**	

▪ **GROSS ATTACKS**
Significant intensity event but which does not compromise the integrity of the structure.

1. enable the detection of GROSS ATTACKS;
2. set the event number desired to trigger the alarm;
3. set the memory time of the event counting;
4. set the desired sensitivity, then check it on the structure by generating gross attacks on the latter until the programmed event number progresses in the counter.
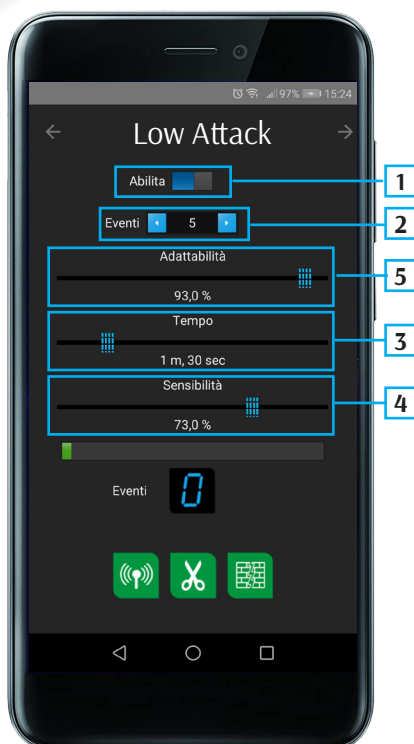
Gross Attack

Abilita	**1**
Eventi ◄ 2 ►	**2**
Adattabilità / 12,0 %	**5**
Tempo / 3,000 sec	**3**
Sensibilità / 73,0 %	**4**
Eventi **0**	

⚠ *IF THE SENSITIVITY LEVELS DO NOT MEET THE CALIBRATION NEEDS, MODIFY THE ADAPTABILITY PARAMETER (5).*

▪ **LOW ATTACKS**
Contact between the protected structure and a rigid body but which does not compromise the integrity of the structure itself.

1. enable detection of LOW ATTACKS;
2. set the event number desired to trigger an allarm;
3. set the memory time of the event counting;
4. adjust the sensitivity, then check it on the structure by simulating low attacks with a rigid body (for example with a hammer) until the programmed number of events progresses in the counter.

Low Attack

Abilita	**1**
Eventi ◄ 5 ►	**2**
Adattabilità / 93,0 %	**5**
Tempo / 1 m, 30 sec	**3**
Sensibilità / 73,0 %	**4**
Eventi **0**	

▪ **HEAVY ATTACKS**
Very high intensity attack which compromises the integrity of the structure and which must trigger an immediate alarm.

1. enable the detection of HEAVY ATTACKS;
2. the default sensitivity is suitable for most of the structures. If needed, it can be calibrated from minimum (0) to maximum (100).

Heavy Attack

Abilita	**1**
Sensibilità / 55,0 %	**2**

⚠ *IF THE SENSITIVITY LEVELS DO NOT MEET THE CALIBRATION NEEDS, MODIFY THE ADAPTABILITY PARAMETER (5).*

⚠ *IF THE SENSITIVITY LEVELS DO NOT MEET THE CALIBRATION NEEDS, MODIFY THE ADAPTABILITY PARAMETER (5).*

SPC PRO

INDOOR DUAL-TECH SHOCK SENSORS

- **OTHER OPTIONS**
  - ‣ **View Alarms on LED**
  - ‣ **View prealarms on LED**
  - ‣ **Enable Actibvity LED**
  - ‣ **Enable Tamper**
  - ‣ **Enable Audio**
  - ‣ **Enable Reset**: making the terminal board connection, enable the digital input command 1, inhibiting the sensor alarm output.
  - ‣ **Enable Memory**: making the terminal board connection, enables the digital input command 2, activating the sensor alarm memory.
  - ‣ **Save preset**
  - ‣ **Self-test**
  - ‣ **Password**:change password
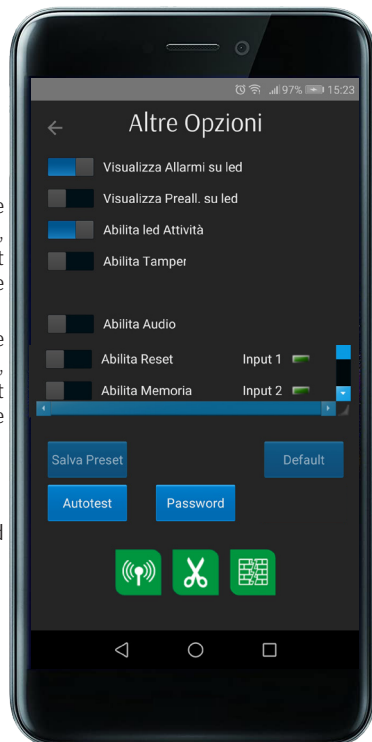
STATUS LED

The sensor is equipped with a multicolor LED, visible from the central lens, for status signalling:

LED COLOUR	SENSOR STATUS
Blue	REGULAR ACTIVITY
Magenta fixed	Tamper
Red	Alarm
White	Prealarm
Purple	INITIALIZATION ERROR

STATUS ICONS

The SPC PRO APP communicates the sensor status in real time, through the status icons, according to the following tables:
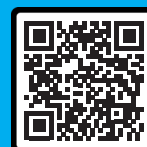
(RED) COMMUNICATION DISABLED
(GREEN) SENSOR ENABLED

(ORANGE) PREALARM
(RED) ALARM LOW ATTACKS
(RED) ALARM GROSS ATTACKS
(RED) ALARM HEAVY ATTACKS
(RED) ALARM CONTINUOUS IMPACTS

(MAGENTA) LOW VOLTAGE
(MAGENTA) SELF-TEST FAILED
(MAGENTA) MEMS SELF-TEST FAILED
(MAGENTA) SENSOR REMOVAL

SCAN ME