DATASHEET

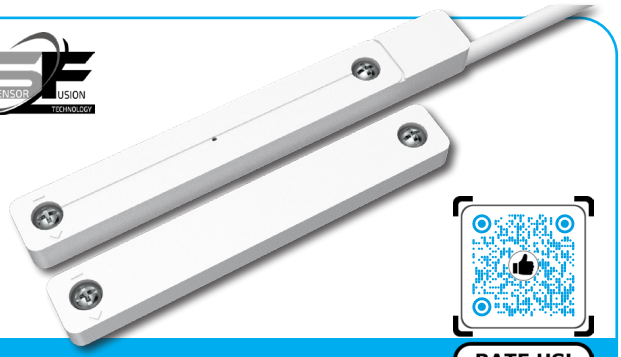
SN-SPCP-FRCM

SECURITY®

RECESSED SHOCK DETECTOR FOR WINDOW WITH MAGNETIC SENSOR

SPC PRO

INDOOR SHOCK AND SEISMIC (DUAL-TECH) DETECTORS



P/N SN-SPCP-FRCM

RATE US!

DESCRIPTION

DEA **S**ensor **F**usion (DSF) Standalone recessed detector for the protection of all types of **window and door** frames against **low impacts**, **gross impacts**, **break-ins**, **continuous vibrations** and **opening** events. It combines the robustness and reliability of a piezoelectric transducer with the precision of MEMS technology and integrated electronics that ensure accurate detection and detector calibration. Calibration is simplified through the use of DIP switches.

PACKAGE CONTENTS

In addition to this technical datasheet, the package contains:

- No 1 SN-SPC-FRCM detector
- No 1 detector shim
- No 2 round-head screws 2.9 x 9.5 mm (sensor fixing on PVC or aluminum)
- No 2 round-head screws 2.9 x 13 mm (sensor fixing on wood)
- No 1 magnet
- No 1 magnet shim
- No 2 round-head screws 2.9 x 6.5 mm (sensor fixing on PVC or aluminum)
- No 2 round-head screws 2.9 x 9,5 mm (sensor fixing on wood)

COVERAGE AREA

The detector is able to cover an entire window frame, including any glass surfaces, up to an extension of 4 m². However, this value may be reduced due to the conditions and characteristics of the window frame.

COMPLIANCE

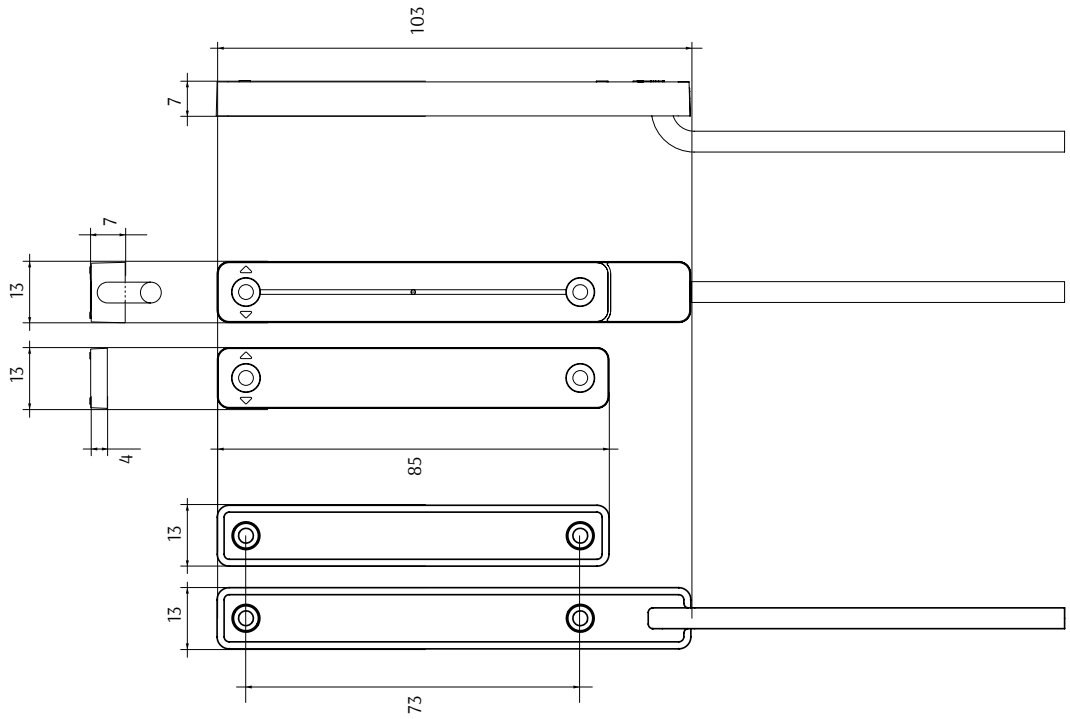
- **DIRECTIVE 2014/30/EU (EMC)**
  - EN 50130-4:2011+A1:2014
  - EN 61000-6-3:2021
- **DIRECTIVE 2011/65/EU (ROHS)**
  - EN 50581:2012
- **STANDARD EN 50131-1:2006+A1:2009+A2:2017+A3:2020**
  - EN-50131-2-6:2008
  - EN-50131-2-8:2016

TECHNICAL FEATURES

SECURITY GRADE:	Grade 3 certified (EN-50131-2-8:2016) Grade 3 certified (EN 50131-2-6:2008)
ENVIRONMENTAL CLASS:	Class II certified
DIMENSIONS:	detector: 103 x 7 x 13 mm (L x H x D) magnet: 85 x 4 x 13 mm (L x H x D)
PACKAGE DIMENSIONS:	75 x 35 x 200 mm (L x H x D)
GROSS WEIGHT:	101 g (gross) - 57 g (net)
MATERIAL:	ABS
COLOUR:	white
POWER SUPPLY:	12 V_{DC} (±25%) (nominal) 5 V_{DC} (low supply voltage)* 15,5 V_{DC} (high supply voltage)*
CURRENT:	17 mA
OPERATING TEMPERATURE:	-20 °C ÷ +70 °C (not certified) -10 °C ÷ +40 °C (75 % HR) - certified
RELATIVE HUMIDITY:	<95% non condensing
IP RATING:	IP40
FUNCTIONS AND DEVICES:	▪ anti-removal tamper ▪ magnetic anti-masking ▪ Power supply anomalies reporting* ▪ remote control LED signals
OUTPUTS (NC):	▪ alarm (continuous impacts, low attacks, gross attacks and heavy attacks) and power fail* ▪ magnetic sensor opening ▪ tampers
COVERAGE AREA:	4 m²

(*) Functions not subject to EN 50131-2-8 certification

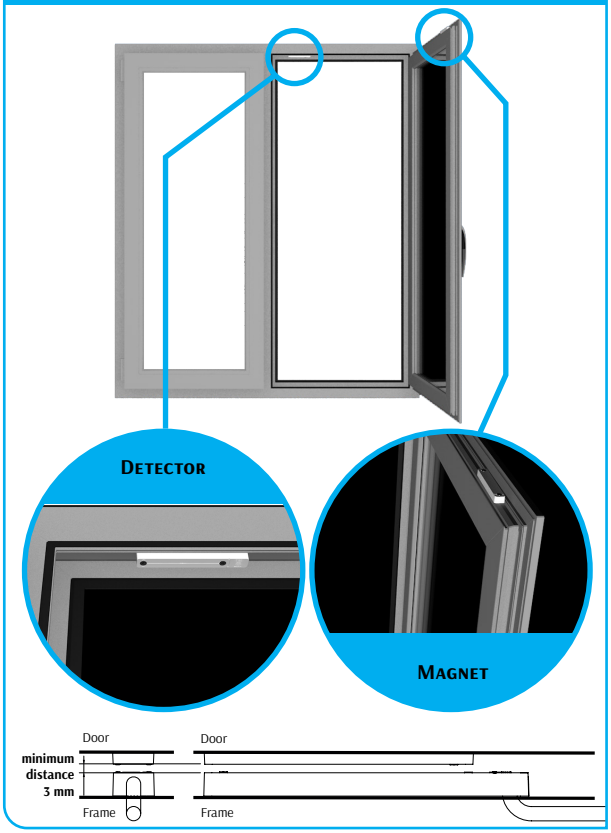
DIMENSIONAL SCHEME



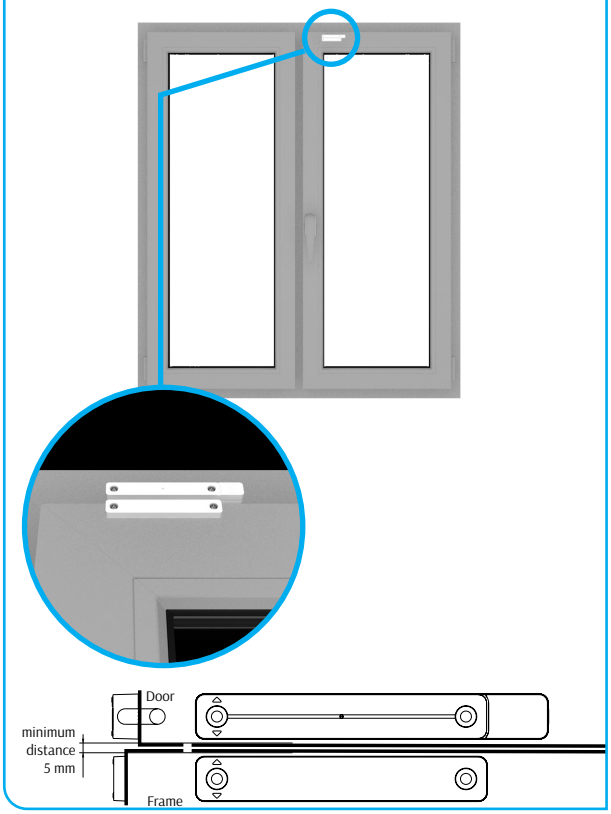
INSTALLATION

Drill the frame of the window or door using the detector shim as a drilling template. Use a drill bit slightly smaller than the provided screws to facilitate the tightening of the self-tapping screws. Subsequently, secure the detector with the supplied screws. The same procedure should be applied when installing the magnet.

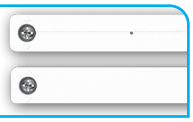
APPLICATION EXAMPLE - RECESSED MOUNTING



APPLICATION EXAMPLE - ON THE FRAME



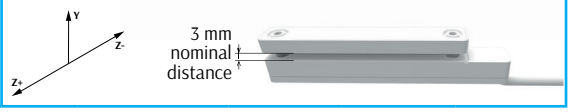
N.B. ***THE MAGNET CAN BE PLACED ON EITHER SIDE OF THE DETECTOR AND MUST BE ALIGNED WITH IT USING THE DESIGNATED MARKERS.***



Magnetic sensor approach/removal distance tables.

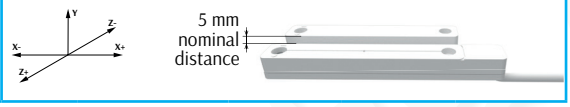
Recessed mounting

Ref. Axes	Event	Distanza		Signal
		in ari	ferro-magnetic	
Y	Distance	7 mm	21 mm	Intrusion
	Avvicinamento	6 mm	20 mm	Stand-by
Z+	Distance	9 mm	9 mm	Intrusion
	Avvicinamento	8 mm	8 mm	Stand-by
Z-	Distance	3 mm	6 mm	Intrusion
	Avvicinamento	2 mm	5 mm	Stand-by



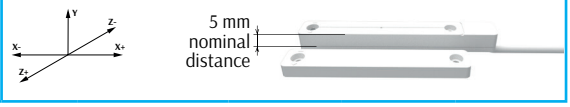
Mounting on the frame - side 1

Ref. Axes	Event	Distanza		Signal
		in ari	ferro-magnetic	
Y	Distance	3 mm	3 mm	Intrusion
	Avvicinamento	2 mm	2 mm	Stand-by
X+	Distance	6 mm	5 mm	Intrusion
	Avvicinamento	5 mm	4 mm	Stand-by
X-	Distance	36 mm	34 mm	Intrusion
	Avvicinamento	35 mm	33 mm	Stand-by
Z+	Distance	3 mm	2 mm	Intrusion
	Avvicinamento	2 mm	1 mm	Stand-by
Z-	Distance	3 mm	2 mm	Intrusion
	Avvicinamento	2 mm	1 mm	Stand-by



Mounting on the frame - side 2

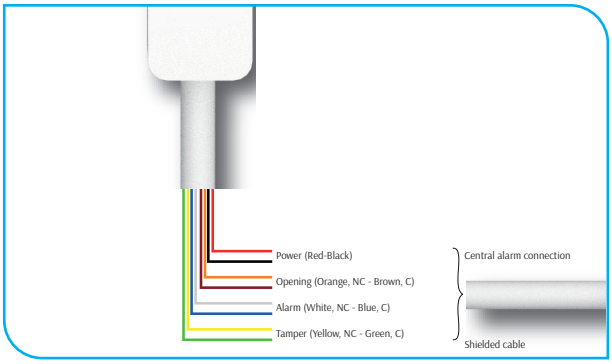
Ref. Axes	Event	Distanza		Signal
		in ari	ferro-magnetic	
Y	Distance	3 mm	3 mm	Intrusion
	Avvicinamento	2 mm	2 mm	Stand-by
X+	Distance	5 mm	8 mm	Intrusion
	Avvicinamento	4 mm	7 mm	Stand-by
X-	Distance	31 mm	41 mm	Intrusion
	Avvicinamento	30 mm	40 mm	Stand-by
Z+	Distance	3 mm	6 mm	Intrusion
	Avvicinamento	2 mm	5 mm	Stand-by
Z-	Distance	3 mm	6 mm	Intrusion
	Avvicinamento	2 mm	5 mm	Stand-by



THE NOMINAL DISTANCE BETWEEN THE MAGNET AND THE DETECTOR IS 3 MM FOR RECESSED INSTALLATION, OR 5 MM FOR ON THE FRAME INSTALLATION.

CONNECTIONS

The detector is supplied with an 8-conductor (non-shielded) cable approximately 1.5 meters in length. It includes 12 V_{DC} power supply (positive and negative), alarm output/ power fail, tamper detection and opening.

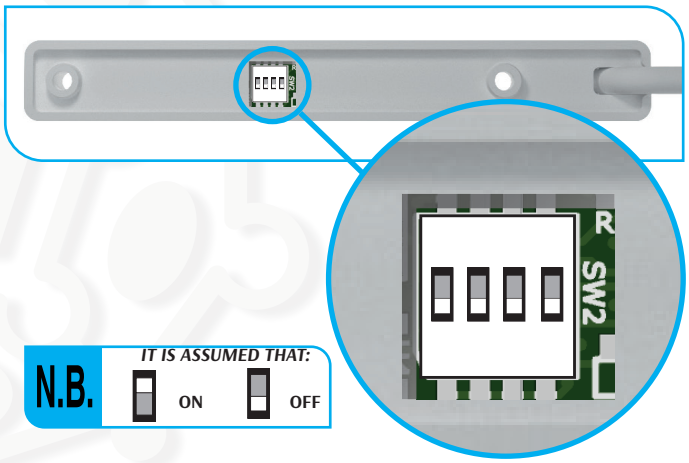


TO CONNECT THE DETECTOR UNIT TO THE ALARM CONTROL PANEL, USE ONLY A SHIELDED CABLE.

FIX THE DETECTOR TO THE STRUCTURE BEFORE POWERING IT. THE FIRST TIME IT IS TURNED ON, THE MAGNETIC SENSOR CALIBRATION ROUTINE WILL START.

CALIBRATIONS

- **Detection parameters**. The adjustment of detection parameters is performed via DIP switches, which allow selection between presets compliant with the EN 50131-2-8 standard and custom settings.



N.B. *IT IS ASSUMED THAT:* ON OFF

- **EN 50131-2-8 presets**. The table shows the configuration of the DIP switches, according to the type of protected structure, compliant with the EN 50131-2-8 standard.

	DIP SWICTH
WINDOW - set by default (generic framed class windows)	1 2 3 4 ON OFF
WOOD (wood plate)	1 2 3 4 ON OFF
CONCRETE (concrete plate)	1 2 3 4 ON OFF

- **Custom settings**. The sensitivity of the detector can be configured by adjusting it with the DIP switches, as shown in the table.

DIP SWICTH	FUNCTION
1 - 2 - 3	Structure Type / Sensibily
4	Enable (ON) or disable (OFF) detector LED

- **Preset**

SENSIBILITY	DIP SWICTH	RECOMMENDED STRUCTURES
Low	1 2 3 4 ON OFF	PVC/Wooden Frame
Medium-low	1 2 3 4 ON OFF	PVC/Wooden Frame
Medium-high	1 2 3 4 ON OFF	Aluminum/Metal Frame
High	1 2 3 4 ON OFF	Armored Door

N.B. ***THE FIXTURES LISTED IN THE "RECOMMENDED STRUCTURES" COLUMN ARE TO BE CONSIDERED PURELY INDICATIVE; IF NECESSARY, IT IS POSSIBLE TO INCREASE OR DECREASE THE SENSITIVITY BY CONSULTING THE "SENSITIVITY" COLUMN.***

- **Magnetic sensor**

Once the sensor and its corresponding magnet are installed, the magnetic sensor calibration mode is activated upon first power-up. During this phase, a 5-minute time period is available to perform the following operations:

1. Verify that the sensor is in "calibration" mode with the window or door open by checking for the fast blinking of the blue LED;
2. Perform 3 consecutive open/close cycles of the window or door within a maximum time of 40 seconds;

N.B. ***OPENINGS / CLOSINGS MUST LAST AT LEAST 3 SECONDS.***

3. Verify successful calibration by opening the window or door and confirming that the blue LED remains lit for 30 seconds.

N.B. ***IN CASE OF FAILED MAGNETIC CALIBRATION OF THE SENSOR, THE LED WILL LIGHT UP FOR 2 S WITH A BRIEF SWITCH-OFF, IN A PROCEDURE THAT WILL LAST APPROXIMATELY 20 S.***

IF THE FIRST CALIBRATION OF THE MAGNETIC SENSOR IS NOT COMPLETED, THE LED WILL TURN OFF. TO RESTART THE CALIBRATION ROUTINE, DISCONNECT THE SENSOR POWER SUPPLY AND RECONNECT IT.

TO PERFORM A NEW CALIBRATION OF THE MAGNETIC SENSOR, IT IS NECESSARY TO REMOVE THE DETECTOR FROM THE STRUCTURE, SET ALL DIP SWITCHES TO ON, AND VERIFY THE FAST BLINKING OF THE LED. BEFORE REINSTALLING THE DETECTOR ON THE STRUCTURE, CONFIGURE THE DIP SWITCHES ACCORDING TO THE PREVIOUSLY SELECTED PRESETS.

N.B. ***THE DETECTION ALGORITHMS FOR TAMPERING, BREAK-IN, ETC. REMAIN ACTIVE EVEN WITHOUT CALIBRATION OF THE MAGNETIC SENSOR.***

STATUS LED

The detector is equipped with a blue LED that indicates its status through different blinking patterns. The various states are detailed in the following table:

Modalità	Comportamento
Magnetic sensor calibration start	fast flashing
Magnetic sensor calibration done	on for 30 s
Magnetic sensor calibration fail	on for 2s and short off
Pre-alarm	on for 800 ms
Alarm	on for 3 s
Magnetic sensor opening	3 flashes in 1.5 s
Ignition self-test failed (fault)	very fast fixed flashing

The LED can also be disabled remotely by acting on the detector's supply voltage.

Mode	Power supply range
LED on (If DIP 4 in ON)	12 V_{DC} ±25%
LED off	7 V_{DC} ±25%

DEA Security S.r.l.
Via Bolano, snc - 19037 Santo Stefano di Magra (SP) - tel. +39 0187 699233 - fax +39 0187 697615
VAT NO.: IT00291080455
www.deasecurity.com - dea@deasecurity.com

SCAN ME