



SN-SPCP-FDR2M

SECURITY. DETECTOR FOR DOORS/WINDOWS WITH MAGNETIC CONTACT



P/N SN-SPCP-FDR2M

DESCRIPTION

Stand-alone detector with **DSF (DEA Sensor Fusion)** technology for the protection of **doors and windows** against **light impacts, strong impacts, breakthrough** events, **continuous vibrations** and **opening events**. It couples the robustness and reliability of the piezoelectric transducer, the accuracy of the MEMS technology with an integrated electronics which ensures Point identification and calibration of the sensor. It is equipped with an anti-removal device and calibration is eased by means of dip-switches.

PACKAGE CONTENTS

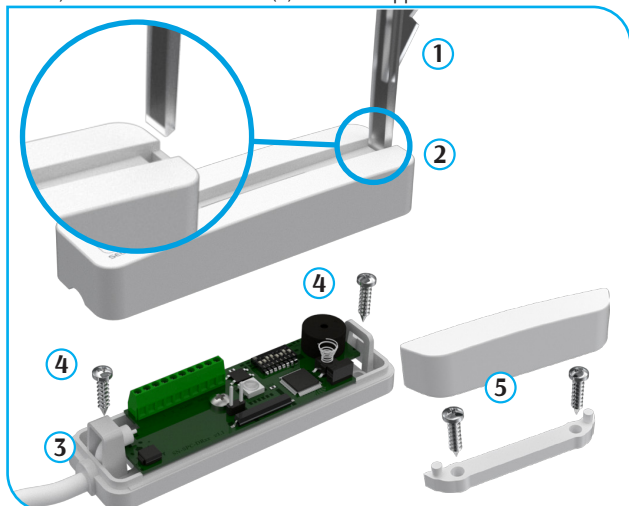
- In addition to the datasheet herein, the pack contains:
- 1 no SN-SPCP-FDR2M detector
 - 2 no round head self-tapping screws 2,9 x 13 mm (for fixing the sensor to the structure)
 - 2 no round head self-tapping screws 2,9 x 16 mm (for fixing the sensor with base)
 - 1 no magnet
 - 1 no retractable base magnet
 - 2 no round head self-tapping screws 2,9 x 9,5 mm (for magnet fixing)
 - 1 no mini screwdriver

COVERAGE AREA

SN-SPCP-FDR2M detector protects the whole structure, including glazed surface (if any), up to 4 sqm (see Application example). However, such value can decrease depending on the conditions and the features of the window/door.

INSTALLATION

To open the detector, put off the light guide present on the cover (1), raise it from its right side (opposite to DEA Security brand); insert the screwdriver in the side hole (2) and prising the unlocking support. Make the cable (3) pass through the desired hole (on the base or on the sensor side) and fix to the structure (4) with the supplied screws.



The magnet (5) must be placed in mid-position in relation to the sensor, by fixing its base with the screws supplied and closing it with its cover.

COMPLIANCE

- **DIRECTIVE 2014/30/EU**
 - EN 50130-4:2011
 - EN 61000-6-3:2021



- **DIRECTIVE 2011/65/EU**
 - EN 50581:2012

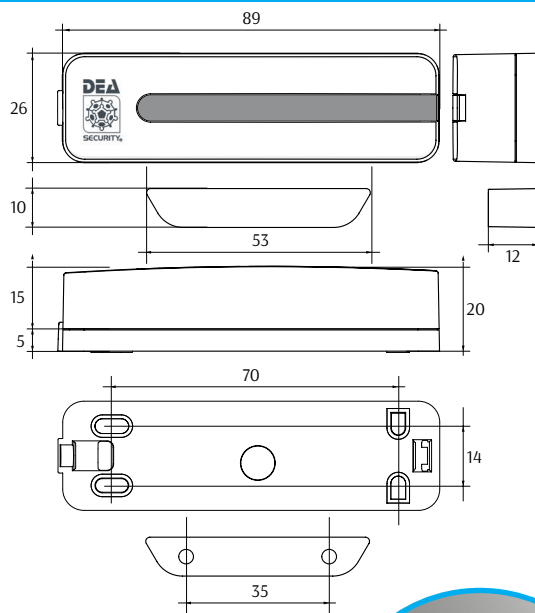
- **STANDARD EN-50131-1/A2:2017**
 - EN-50131-2-6:2008
 - EN-50131-2-8:2016



TECHNICAL FEATURES

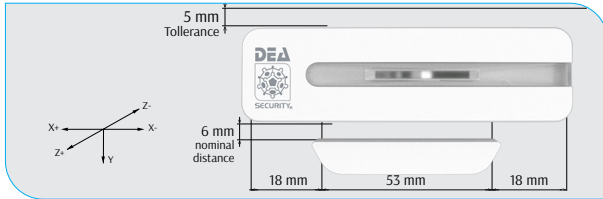
- **SECURITY GRADING:** Grade 2 certified (EN 50131-2-6)
Grade 3 certified (EN 50131-2-8)
- **ENVIRONMENTAL CLASS:** Class II certified
- **DIMENSIONS:** sensor 89 x 26 x 20 mm (L x H x D)
magnet 53 x 10 x 12 mm (L x H x D)
- **PACKAGING DIMENSIONS:** 110 x 75 x 35 mm (L x H x D)
- **GROSS WEIGHT:** 76 g
- **NET WEIGHT:** 57 g
- **CASE MATERIAL:** ABS
- **COLOUR:** white
- **POWER SUPPLY:** 12 V_{cc} ±25% (nominal)
8 V (low supply voltage)
- **CURRENT:** 20 mA
- **OPERATING TEMPERATURE:** -20 °C ÷ +70 °C
- **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), magnetic contact opening and power fail
 - tamper line
- **AVERAGE COVERAGE AREA:** 4 m²

DIMENSIONAL SCHEME



APPLICATION EXAMPLE





Magnetic contact distance / approach table.

Ref. axis	Event	Distance		Signal
		in air	ferromagnetic	
Z+	Moving away	22 mm	13 mm	Intrusion
	Moving close	21 mm	12 mm	Stand-by
Z-	Moving away	31 mm	15 mm	Intrusion
	Moving close	30 mm	14 mm	Stand-by
Y	Moving away	22 mm	14 mm	Intrusion
	Moving close	21 mm	13 mm	Stand-by
X+	Moving away	16 mm	8 mm	Intrusion
	Moving close	15 mm	7 mm	Stand-by
X-	Moving away	18 mm	10 mm	Intrusion
	Moving close	17 mm	9 mm	Stand-by

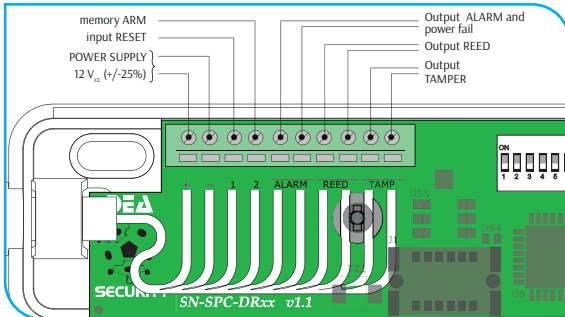


THE NOMINAL DISTANCE BETWEEN THE MAGNET AND THE SENSOR MUST BE 6 MM.



CONNECTIONS

The detector is equipped with a 10-way terminal block: 12 V_{DC} power supply (+ e -), RESET input (1), ARM alarm memory (2), alarm output (ALARM), power fail signal, magnetic contact output (REED) tamper output (TAMP).



The RESET and ARM inputs are optional. In case of use, they must be referred to the negative power supply.

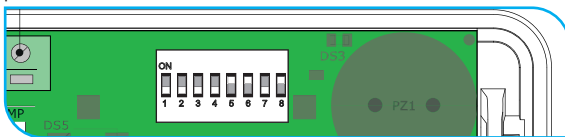


AFTER POWERED THE SENSOR, WAIT FOR THE INITIALIZATION FUNCTIONAL CHECKS. AT THIS STAGE THE SENSOR MUST BE FIXED. ONCE INITIALIZATION IS COMPLETE, THE LED SIGNALS CORRECT OPERATION (BLUE FLASHES) OR MALFUNCTIONS (MAGENTA FLASHES).



CALIBRATION

Calibration and configuration of the detector are performed via dip-switches.



CALIBRATION ACCORDING TO EN 50131-2-8

In accordance with standard EN 50131-2-8, the detector calibration must be the following, depending on the protected structures:

	DIP SWITCH
WINDOW - default (Generic window with glass)	ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]
WOOD (wooden plate)	ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]
CONCRETE (concrete plate)	ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]



FOR THE SELECTION OF THE PRESETS COMPLIANT TO STANDARD EN 50131-2-8, YOU NEED TO OPERATE DIP-SWITCHES 1,2,3 ONLY. IN THIS CONFIGURATION THE REMAINING DIP-SWITCHES DO NOT MODIFY ANOTHER PARAMETERS.

DIP-SWITCH FUNCTIONS AND CUSTOM CALIBRATION

DIP SWITCH	FUNZIONE
1 - 2 - 3	Sensitivity and programming levels
4 - 5	Low attack counting
6	Enable (ON) or disable (OFF) continuous vibrations
7	Memory time for low attack counting (OFF = 45" - ON = 1'30")
8	Enable (ON) or disable (OFF) led.

The detector can be custom calibrated via dip-switches, as shown below:

- sensitivity and programming levels

Levels	DIP SWITCHES
1 (MINIMUM)	ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]
2	ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]
3	ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]
4	ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]
5 (MAXIMUM)	ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]

N.B.

THE SENSITIVITY CAN BE INCREASED CONSIDERING LEVEL 1 AS MINIMUM SENSITIVITY AND LEVEL 2 AS MAXIMUM SENSITIVITY.

- Event number counting (low attacks)

Event No counting	DIP SWITCHES	Event No counting	DIP SWITCHES
2	[1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]	4	[1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]
3	[1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]	5	[1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] ON: [1: ON, 2: ON, 3: ON, 4: ON, 5: ON, 6: ON, 7: ON, 8: ON] OFF: [1: OFF, 2: OFF, 3: OFF, 4: OFF, 5: OFF, 6: OFF, 7: OFF, 8: OFF]

N.B.

THE DETECTION OF THE CONTINUOUS VIBRATIONS (ATTACKS PERFORMED WITH ELECTRIC TOOLS, SUCH AS CIRCULAR SAWS) DOES NOT NEED ANY CALIBRATION.

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