SesMo ™ Pro Seismic Sensor

INSTALLATION INSTRUCTIONS

Item: 4772PRO (short forum version)

Description

SesMo Pro is a combined high end seismic detector used to protect bank and media safes, strong rooms, Automatic Ticket Machines (ATM), vending machines, telephones post, cash dispensers & documents cabinets.
The SesMo Pro reacts to most types of known attack tools: Oxygen lances, steel and diamond bit drills, hydraulic pressing tools and explosives. The SesMo Pro integrates three technologies for most efficient detection: Seismic (Bimorph sensor), light and heat, each with relay output. The seismic sensor covers approximately to 4-7 meters/square (depends on the protected surface). The SesMo Pro is suitable for approved installation, housed in Aluminum enclosure. The SesMo Pro complies with EN-50131 Grade 4. Operates on 12V DC, 24V optional.
The SesMo PRO contains integrated two or three simulators for remote test and detector status verification. For approved installations and further details refer to SesMo full manual.

Ordering:

SesMo Pro – Three detectors with three (seismic, heat and light) alarm simulators.
SesMo Pro_I – Three detectors with two (heat and light) alarm simulators
Optional for remote object heat sensing: HEAT_33 external heat sensor

Installation Instructions

Step One: Location

Open the upper cover by removing the screw. Locate the SesMo PRO in a hard to access location, far from light, humidity, heat and occasional vibration. Use two 2 screws (see fig. 1) to attach the SesMo Pro housing to a solid and flat surface, provides maximum contact to the SesMo housing. Attaching the SesMo Pro to a soft surface or none solid wall may cause false alarms. SesMo Pro Screws template fits to most ATM's provided by NCR manufacture sensor attaching arrangements (few models available).

Step Two: Wiring

1. Supply 12V DC (or 24V if has 24V label) Power to +V and –V terminals, power up after wiring finished.
2. Connect the three relays (N.C. and C) terminals to a zone programmed as 24H or Day zone.
3. Wire the Tampers (the two Tamper protects the box against opening and removing) from 'TMP' terminals to a Tamper zone in the control panel.

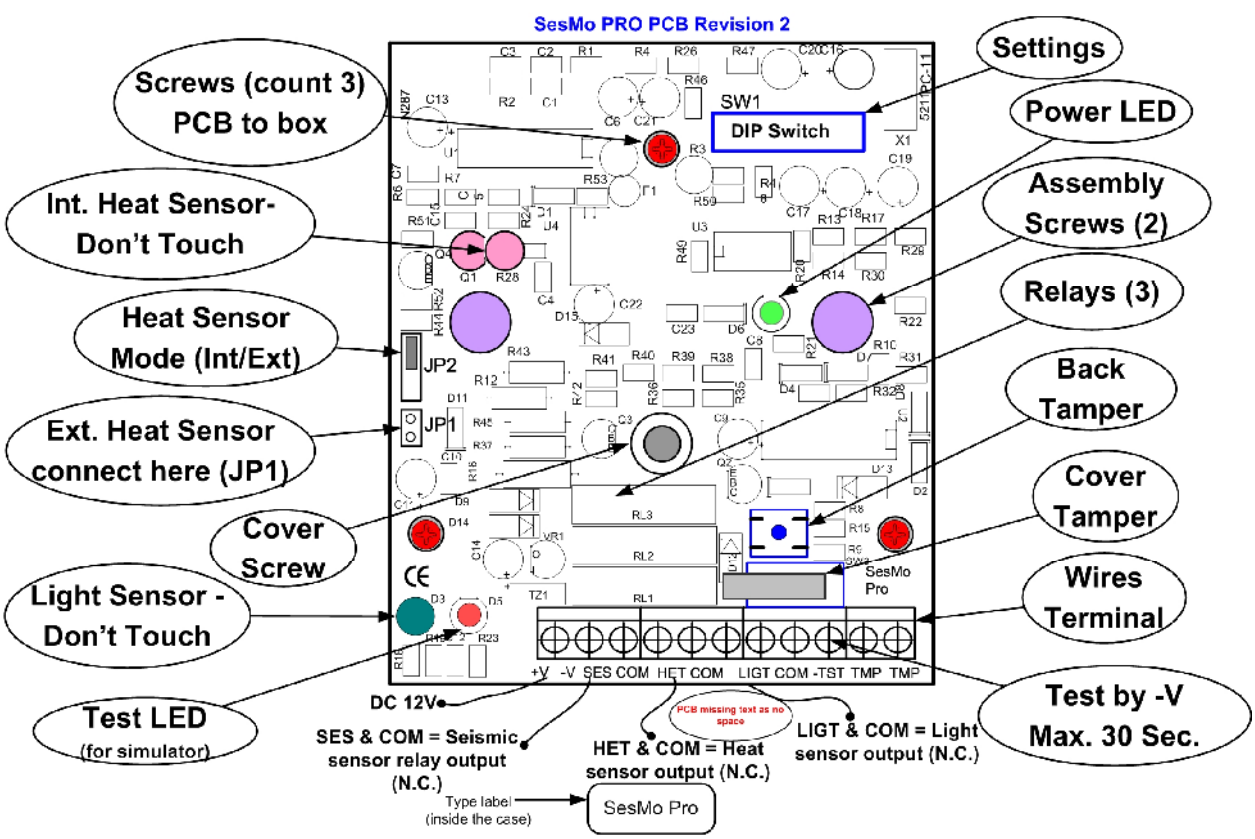

Figure 1: SesMo Pro wiring diagram and indicators

Step Three: Adjusting and setting

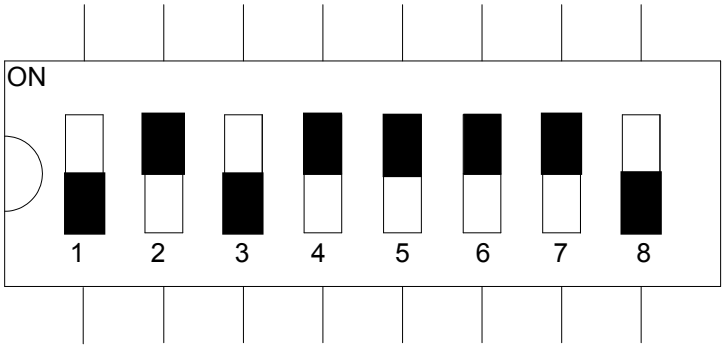

Figure 2: Switches array shown at factory default settings

The SesMo Pro contains an internal heat sensor, with option to connect HEAT_33 as external heat sensor, to select one of them use JP2 jumper, at JP1 connect the external heat sensor, refer to figure 1. Lowest seismic sensitivity: Sw'1 and 2 = OFF, Sw' 7 = ON.
The switches array contains the SesMo PRO sensitivity and function setting as detailed below.

The description refers to the switch at **ON** state:

SW 1 – **High sens. Seismic detection**	SW 5 – **Light Sensor - Count 3 Pulse**
SW 2 – **Medium sens. Seismic detection**	SW 6 **– Reserved**
SW 3 – **Heat sensor high sensitivity**	SW 7 – **Seismic Sensor - Count 3 Pulse**
SW 4 – **Heat Sensor – Count 3 Pulse**	SW 8 – **Reserved**

Note1: If SW1 is ON, SW2 is not effective. **If remote test is used set SW4 to Off.**

Step Four: Testing

Caution! Apply Test command for max. of 30 seconds

Attach the sensor box firmly to the protected area. Power up; verify the power LED is on Choose the test way you prefer.

For self-test apply –V to TST terminal, the SesMo Pro will simulate seismic, heat and light to the internal sensors. Long self-test may damage the internal simulators! Keep maximum 30 sec's.
Manual test: Cover the light sensor and don't touch the SesMo PRO box and surface mounted onto. Power-up, wait for 60 seconds.

Generate alarm condition for each sensing criteria: Seismic, Light and Heat. Cover the light sensor for total dark. Keep it covered. For the seismic sensor test use a 200-grams hammer, knock once on the protected area, if alarmed consider reducing sensitivity (pulse count and sensitivity). For heat source use a 500W heat gun or fan during 60 seconds (max), directed on the SesMo PRO box from approximately 0.5 meter far – verify that the Heat alarm is on. Light: Expose to day light/handy flash light for 2 seconds and verify alarm. Each alarm relay is activated separately. There are no LEDs indications at alarm. Alarm is triggered **if one** of the three sensors has been activated.

SesMo PRO Specifications	
Operating Temp: -25 to +70 C°	Relays: N.C. Mode, 50 mA @ 12-28V
Humidity: 80%. MTBF=100,000 Hours	Tampers: 500 mA @ 12-28V
DC Input: 11 to 14V DC. Option: 24V (18-26V)	Seismic: Bimorph sensor
Current: Standby 50 mA, at Alarm 39mA	Heat sensor: Semiconductor (min. 65°C)
Detection: Seismic, heat, light	Light sensor: Opto Cell (min. 20 Lux)
RFI Protection: 30V/m @ 10–1000 MHz	Indications: Power LED, Test LED
EMI Protection: 50KV @ 1 mS lightning or surge	Size: W=110, L=82, H=29 mm

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