EN

e-Detector Noiseless

Instruction Sheet

Motion sensor with transistor output for ceiling mounting

Product reference: DP.801110-010

e-Detector Noiseless is a motion sensor for ceiling mounting, used to detect motion through the detection of heat changes coming from bodies in motion in the covering area. The device is including an infrared sensor that detects with high precision any movement in a room or zone in a building.

The product includes an optocoupled transistor output that avoids any noise of the traditional mechanical relays, and has been designed to be connected at a voltage digital input of a system to monitor the motion detected.

Product description

e-Detector Noiseless is a motion sensor for celing mounting used to detect people or bodies in motion in a building. The device has an infrared motion sensor that detects any movement with a very high precision and a transistor output type is used to connect the device to a voltage digital input, that activates every time a valid movement is detected. The output becomes active during 5 seconds after a valid detection. The device has a potentiometer to adjust the sensitivity of the motion sensor providing a very flexible device installable in any environment.

A red LED indicator in the front cover of the device blinks shortly when the device is detecting motion. The pushbutton is used to disable the LED indictor function, avoiding lighting it when a movement is detected. To do this, press the front pushbutton between 2 to 5 seconds to enable/disable this function.

Mounting instructions

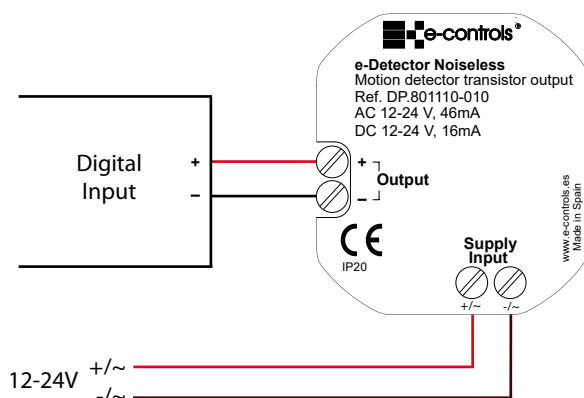The device has an enclosure for flush mounting on roof ceilings.

Mounting instructions:

1. Drill a 65mm diameter hole on the ceiling.
2. Connect wires on the correct terminals:

   - Connect the power supply to the +/ ~ y -/ ~ terminals.
   - Connect the transistor output + and - to the digital input terminals, respecting the polarity.

3. Adjust sensibility detection potentiometer on the side of the device, to the desired value.
4. Clip the springs and insert the product into the hole, releasing the springs when placed in the hole.
5. Power up the supply voltage and check the red LED indicator is switched on during some seconds (warm up time).
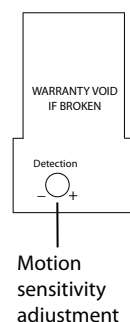
Caution:

- The device can't be installed over shelves, behind curtains, near heat/cool air handling units and avoid direct sun radiation over the device.

- Disconnect the device from the power supply before mounting or moving the sensor.

- Do not leave cables peeled or turned around the device.

- Do not connect the device with the hands wet.

- Do not open or drill the device

- Keep the device and cables away from humidity and dust.

- Clean the front cover with a water moisture soft cloth.

Wiring diagram and mechanical description

INS1215507000-1

Digital Input

Output

e-Detector Noiseless
Motion detector transistor output
Ref. DP.801110-010
AC 12-24 V, 46mA
DC 12-24 V, 16mA

www.e-controls.es
Made in Spain

CE

IP20

Supply Input
+/~   -/~

12-24V   +/~
         -/~

Lateral view

WARRANTY VOID IF BROKEN

Detection
– +

Motion sensitivity adjustment

Front view

Motion sensor

Pushbutton

Motion indicator
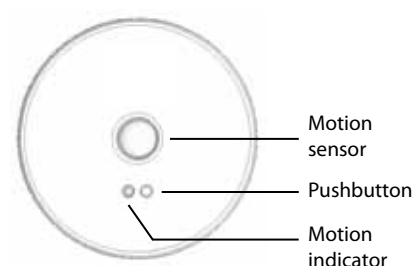
Motion sensor

Detection diagram

Plan view (installed at 2,5 mts high)

6 m

6 m
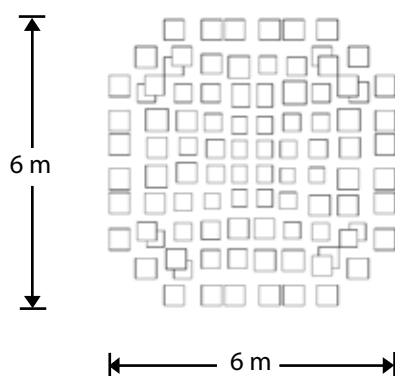
Coverage area table [(*)]

Altura Height (m)	Diámetro Diameter (m)	Area Area (m^2)
2,5	6	28
3,0	6,8	37
5,0	11	104
7,0	16	204
10,0	23	416

(*) At optimal sensitivity conditions

Features

Supply power
Operating voltage . . . . 12-24 Vca/Vcc ±20%
Operating nominal current . . . . 16mA@12Vcc, 39mA@12Vca
16mA@24Vcc, 46mA@24Vca

Motion sensor
Technology . . . . PIR (Infrared)
Number of pyro elements 4
Number of detection zones 88
Detection angle (X, Y) . . . .+/- 50º
Detection range (at 2,5 m from floor) . . . . 6 meters
Maximum detection distance . . . . 10 meters
Detection diagram . . . . See table
Mean time for stabilization . . . . 60 s.
Sensitivity adjustment . . . . Potentiometer
Output signal . . . . Transistor (see Output)

Output
Type . . . . .Optoisolated
Output type . . . . .Open collector
Maximum voltage . . . . + 75 V
Maximum current . . . . + 10 mA
Maximum power allowed . . . .+ 150 mW
Detection pulse time . . . . 1 s ON / 1,5 s OFF
Stand-by state (no detection) . . . . .Open

Front panel LED indicator
Colour . . . . .Red
On/Off . . . . .Motion detected/Stand-by

Pushbutton
Long push . . . . LED blink enable/disable

Mechanical installation
Installation . . . . Flush mounting on ceiling
Fixation . . . . 2 metal springs
Hole diameter . . . . .65 mm
Max ceiling thickness . . . . .19 mm
Internal height on ceiling . . . . .45 mm

Mechanical features
Dimmensions . . . . 80x50mm (ØxH)
Weight . . . . 70 g
Colour (front) . . . . RAL 9016
Enclosure material . . . . .PP
Terminals . . . . Screw type
Wire section . . . . 0,5 mm^2 - 2,5 mm^2 (14 AWG)

Temperature
Operating . . . . 0ºC to +50ºC (32ºF to 104ºF)
Storage . . . . -20ºC to +85ºC (-4ºF to +185ºF)

Humidity (no condensation)
Operating . . . . 10% to 90% RH at 50ºC
Storage . . . . 95% RH at 50ºC

Product Family Standards
Automatic electrical controls for household and similar use.
General requirements . . . . EN 60730-1

CE Conformity
Low Voltage Directive 2006/95/EC
Electromagntic Compatibility Directive 2004/108/EC
Marking . . . . .CE

Safety
Standard . . . . EN 60730-1
IEC Protection Class . . . . Class III
Environmental protection level IP20

EMC
Emissions . . . . .EN 61000-6-3
Immunity . . . . .EN 61000-6-1

NOTES:
1) The device is not intented for use as part of a security system detector.
2) Installer should adjust the sensibility potentiometer to the environment where device will be installed, for an optimal detection of the motion sensor.

Product reference

e-Detector Noiseless, Motion sensor with optoisolated output, ceiling mounting DP.801110-010

Related products

Surface mounting enclosure AC.000001-000

CE