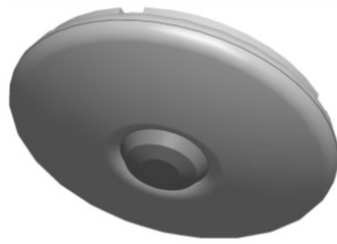


DTSPOT360 - volume sensor for indoor installation with dual technology, designed for installing ceiling



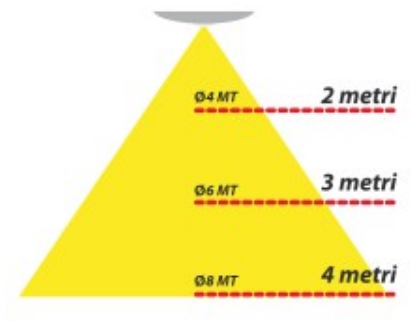
MAIN CHARACTERISTICS:

- Cover area on 360 degrees, diameter = 2 times the height of the installation of the sensor
- Mounting high – to 4 m
- AntiMask function
- Microwave synchronization
- Selectable working method BLIND/AND
- Memory for the type of the alarm
- Self upon initial start
- Turning off the LED indicators
- WALK TEST setting
- Protection from vibration (from fluorescent lamps)
- Fourfold PIR element
- Fresnel lens with 30 zones and 4 levels
- 16 terminal resistors for balancing the line

In DtSPOT is offered the advantage of two different technologies for the detection, with two different sensitivity levels. The aim is to select the most appropriate mode for the particular site, achieving maximum sensitivity for a minimal probability of false alarms. The sensor has a 360 ° viewing angle. It is installed on the ceiling in the center of the protected area. The diameter of the coating is equal to 2 times the height of its placement. For example, when the sensor is installed on three meters height, the sensor will cover a diameter of 6 meters or 36 m2.

CHART OF COVERAGE :

Site view:



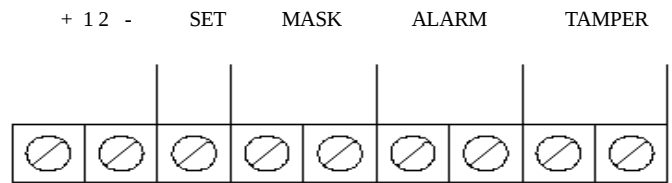
INSTALLATION GUIDE:

The lid of the sensor is opening by turning clockwise. For protection from interference we must use a shielded cable. Shield of the cable connects to the "land" only at the plant. When we give power to the



sensor it enters a self-test for 60 seconds. During this time we must leave the area of its scope.

DESCRIPTION TERMINAL:



+/- 12 – Power for the sensor

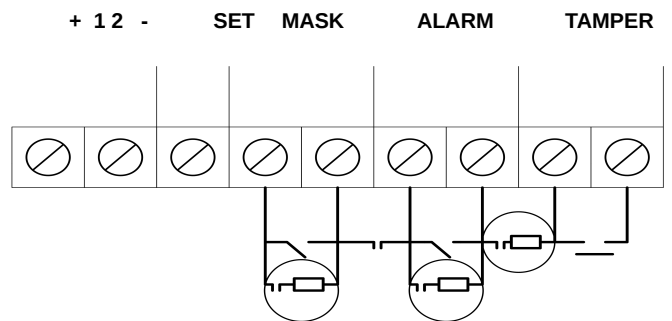
SET – Entrance where the alarm station supplied +12V when it is included

MASK – Output content for ANTIMASK function. Normally closed

ALARM – Output contact for alarm. WEhne

TAMPER - Normally closed contact. When we are removing the lid of the sensor it is opening

BALANCING THE LINES:



Balancing DEOL (double balance) - in this type of balancing in parallel to the alarm the output is set to resistor or jumper on the terminal block with the corresponding resistor. From the alarm output to the tamper output is placed consistent resistor or jumper on the terminal, which correspond to each resistor. If the control panel does not support TEOL (triple balance) for using the function AntiMask, it must be connected in series with the already balanced line. In this connection, when the MASK is activated, the plant will show that the tamper is triggered, and the sensor will start to flashes with three different lights.

Settings of DIP SWITCH:

Factory setting:

DIP SWITCH 1: MASK OFF

DIP SWITCH 2: AND

DIP SWITCH 3: SENS HIGH

DIP SWITCH 4: LED ON

Recommended configuration:

DIP SWITCH 1: MASK ON

DIP SWITCH 2: BLIND

DIP SWITCH 3: SENS HIGH

DIP SWITCH 4: LED OFF

It is recommended that the sensor has to be set to the corporate configuration. In MASK ON + BLIND combination, if there is an attempt

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to shade (cover) the sensor, for blocking the IR element, the MW-field will put the alarm on after the sixth motion detection. If the obstacle in front of the sensor is closed the exit of the MASK will be triggered. In LED OFF + SET combination the LED is off so the intruderite can not establish the detection zone of the sensor. Meanwhile, when the alarm station includes (SET), the sensor will flash for 60 seconds. This will ensure that the alarm works.

CALIBRATION OF THE SENSOR:

During the calibration of the sensor, DIP SWITCH 1 is placed in the OFF (antimask OFF), and 4 DIP SWITCH ON (LED enabled). In this mode the ANTIMASK function is off.

Setting MW: the trimmer is adjusted to minimum (range 2-6 m). Began to carry traffic at the end of the observation sensor area. Sensor monitors at what point will begin to detect motion (when traces flashing green LED). In order to increase the flow of the MW field the trimmer must be rotate inclockwise, and the test to be repeated until the condition of the sensor required. The flow of the field should be limited to the minimum necessary. To limit the possibility of false alarms, we should not go beyond the observed area.

IR settings: The setting of the IR sensor is through movement from the end of the coverage area to the sensor. Indication that this movement is detected is the yellow LED. In this test could determine whether there are 'gray' areas observed by the sensor area.

НАСТРОЙКА НА ЧУВСТВИТЕЛНОСТТА:

DIP SWITCH 2 in **OFF** position – the sensor works in position AND. When this mode is turned on the sensor gives alarm signal nearly simultaneously activation of the both sensors. This mode is particularly suitable for aggressive environments where there are movements of the air masses with different temperatures.

DIP SWITCH 2 in **ON** position – the sensor works in position BLIND. This mode works as Logical AND (AND). In addition to it, the sensor gives alarm signals only in 6 notifications of the MW sensor. It is suitable for places where IR sensor is likely to be overshadowed by standing in front of it or have doubts for deliberately closing the sensor in order to sabotage.

DIP Switch 3 in **ON** position - in reducing of the sensitivity. The sensor pass alarm signal when the IR sensor detects motion in two beam lens and MW sensor detects a speed from 0.5 to 0.6 m/s.

ANTIMASK:

Any object placed in front of the sensor at a distance of 40-70 cm, is able to overshadow MW field and cause activation of function MASK. This means that the sensor flashes intensive, the terminal MASK of the terminal will work. This condition lasts till the shading in front of the sensor is removed.

During the setting of the sensor, the inclusion of the mask - DIP SWITCH 1 in position ON - is the last step. After this step the lid must be closed quickly and put aside - not in front of it. The sensor starts self-test for 60 sec. and automatically calibrates the level of the MW field so the AntiMask function could work correctly.

In LED OFF position of the DIP SWITCH 4, the sensor will not show any light indicators, unless the entrance of the SETfunction dropped voltage from the alarm station. Then the sensor will flash for 30 seconds. In that way it could be seen from a distance whether the system is on.

Off AntiMask function - DIP SWITCH 1 in position OFF. In switched off antimask, the LED indicator will be lights and the SET function will turn off completely the MW field. In that way, the presents in the range of the sensor will not be unnecessarily irradiated with electromagnetic waves.

NOTE: When you turn DTSPOT, the sensor enters LED ON for 40 minutes.

Synchronize MW fields:

Synchronization is achieved by connecting the terminal SET to the sync board COMMANDER. This is done by individual wire from each sensor. The controller COMMANDER looks for monitors and prevents collisions with simultaneous operation of two or more microwave sensors in the same observed room.

NORMS, STANDARTS, DECLARATIONS:

The sensor correspond to EN 50131-2 4GRADE 2 CLASS II

De Tech S.R.L. declares that the motion sensor DTSPOT 360 is under the existing requirements and other relevant provisions of the European Directorate R &TTE 1999/5/CE.

TECHNICAL SPECIFICATIONS:

Power supply voltage	12 Volt +/-30%
Maximum consumption	40 mA
Consumption in standby mode	20 mA
Frequency	10.525 GHz
Strength of the feel	RFI 0.1 / 500 MHz 3 V/m
Transmitted signal	Uninterrupted
Relay output	24V/100mA
Tamper switch	30V/100mA
Antimasking output	Yes
Hold of the alarm signal	3 sec
Work temperature	from -10°C to + 55°C
Protection class	IP 5x
Humidity of the working area	95%
MTBF	98803 hours

WARRANTY:

The manufacturer's warranty is 5 years and is valid for manufacturing defects and malfunctions.

