

# PATROL – 401PET «QUAD PIR»

DIGITAL PASSIVE  
INFRARED DETECTOR  
WITH PET IMMUNITY  
UP TO 35 KG

INSTALLATION  
INSTRUCTIONS



www.gsncompany.com



## SPECIAL FEATURES.

- QUAD (four element) PIR sensor
- Bipolar pulses counter
- Digital mathematical algorithm of signal processing
- High RFI & EMI immunity
- High light immunity – no less than 10000 Lux
- Self diagnostics – the microcontroller controls the detector's basic circuits.
- Optoelectronic switch relay
- Hermetically sealed pyrosensor
- Low operating temperature
- Automatic temperature compensation

## DESCRIPTION.

The PATROL-401PET is a digital passive infrared detector, immune to pets up to 35kg and 1m height.

A combination of a unique, cutting-edge technology of bipolar detection and the QUAD element pyroelectric sensor makes the PATROL-401PET the most stable detector, flawlessly immune to pets up to 35kg and capable of providing reliable detection in large commercial and industrial areas.

The principle of bipolar detection has led to the detector with high interference immunity, which ignores disturbances, such as light exposure, sudden temperature changes, radio frequency interference (RFI) and electromagnetic interference (EMI).

The PATROL-401PET, which is based on bipolar pulse detection, detects successfully a person's movement in spite of the various interferences found in large premises

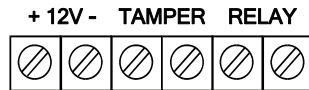
## SELECTING MOUNTING LOCATION.

The recommended installation height to gain maximum protection zone is 2.1-2.3 meters.

## MOUNTING THE DETECTOR.

1. To remove the front cover, push the base of the detector with the flat screwdriver.
2. To remove the PCB, unscrew the locking screw.
3. Detector can be placed vertically or at an angle of 10-15°.
  - Use the knockouts on the base of the detector for vertical mounting.
  - Use a bracket for mounting the detector at an angle (up to 10-15°).
4. Mount and fix the detector base on the wall or onto the bracket.

5. Connect the wires according to the scheme.



6. Place the PCB back and fix it with the screw in the desired position.

- For vertical mounting the detector place the PCB in the "A" position.
- For bracket mounting the detector place the PCB in the "B" position.

7. Close the detector's cover.

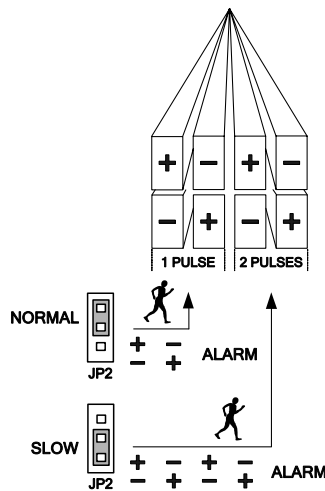
## THE BIPOLAR PULSE COUNTER. OPERATING MODE SELECTION.

Select the "NORMAL" operating mode for premises with stable environment.

Select the "SLOW" operating mode for premises with complex operational conditions, such as: draughts, sudden temperature changes, vibrations, etc.



## BIPOLAR PULSES COUNTER.



## LED INDICATION ON ALARM.



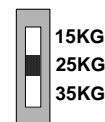
Jumper JP1 will enable/disable the alarm LED.

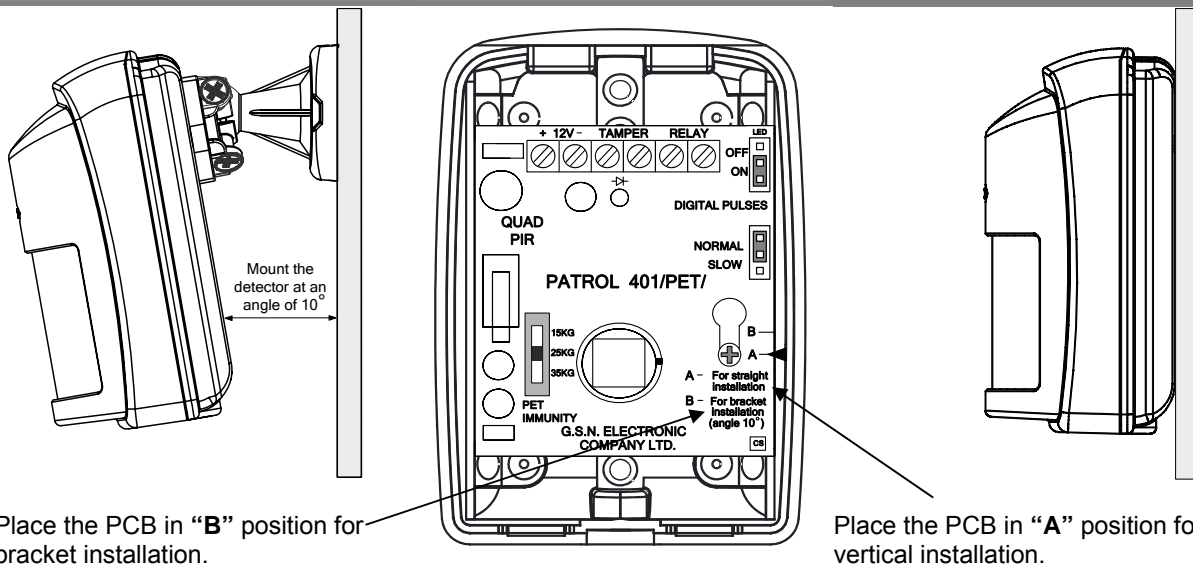
If JP1 is **ON** – LED will operate on alarm.

If JP1 **OFF** – LED will not operate on alarm.

## ANIMAL WEIGHT REGULATOR.

The regulator adjusts the detection sensitivity to the animal weight.

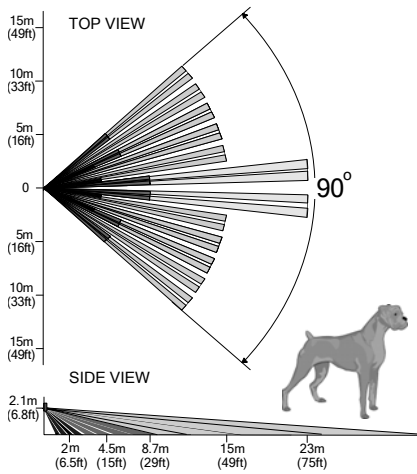




Place the PCB in "B" position for bracket installation.

Place the PCB in "A" position for vertical installation.

**WIDE ANGLE LENS.**



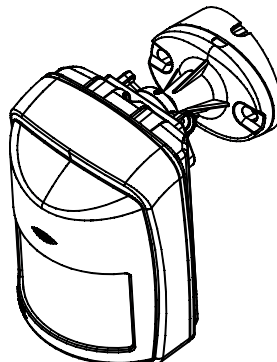
**TECHNICAL SPECIFICATION.**

Detection speed range:.....0.3 - 3.0m/sec  
 Power input:.....8.5 - 16VDC  
 Current consumption:  
 In stand by mode:.....12.7mA  
 In alarm mode with LED on:.....9.7mA  
 In alarm mode with LED off:.....6.8mA  
 Bipolar pulses count:.....1, 2  
 Alarm period:.....3sec  
 Coverage range:.....15meters  
 Relay output:.....60V; 120mA; 16Ω

Warm up period:.....40sec  
 Reset time:.....5 ± 1sec  
 Light immunity:.....no less than 10000Lux  
 Operating temperature range:.....- 30°C + 50°C  
 Storage temperature range:.....- 40°C + 80°C  
 RFI immunity:.....30 V/m at a frequency range 10MHz-1000MHz  
 EMI immunity:.....50 000V  
 Dimensions:.....93x66x46mm  
 Weight:.....93gr.

**WARRANTY.**

GSN Electronic Company Ltd. warrants the product to be free from defects in materials and workmanship under condition of observance of service regulations and to be repaired or replaced under absence of mechanical damages for a limited period of five years from the date of sale.



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