

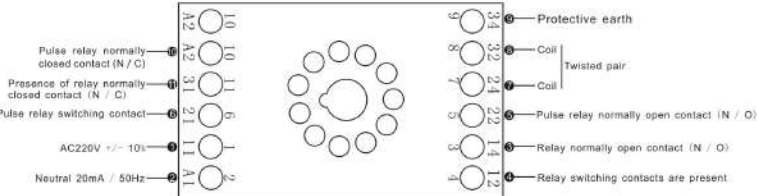
Pd132one-way car detector manual

1. Technical parameters

Working power supply	AC220V / 50Hz, 4.5W
Sensitivity	four levels adjustable
working frequency	20KHz ~ 170KHz
Response time	10ms
Working temperature	-20 °C ~ + 65 °C
Relative humidity	≤90% without condensation
Existence time	infinite existence / limited existence 10 minutes
Maximum coil output method	8 meters X 1 meters
Detection lead	Relay best within 10 meters



2. Wiring diagram

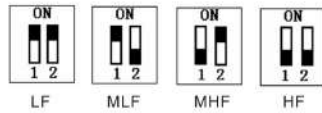


3. Work status indication

When the power is turned on, the detector will automatically calibrate. The calibration process takes about 1 second. While calibration is in progress, the two LEDs on the panel are always on. No car should be parked on the coil during calibration. When the calibration is successful, the "Detection" indicator on the panel goes out. When a car passes on the coil, the "Detection" indicator on the panel lights up, and relay d2 (pins 3 and 4) is turned on. If no coil is detected during the calibration process, the corresponding indicator on the panel will flash continuously.

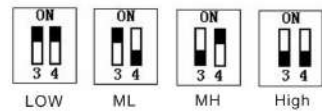
4. Work efficiency adjustment

The user can change the operating frequency of the coil to avoid interference from adjacent coils or ambient frequencies. This product provides four frequency options, which can be set by the DIP switches DIP1 and DIP2 on the panel with reference to the figure on the right.



5. Sensitivity adjustment

The sensitivity adjustment uses the DIP3 and DIP4 switches on the panel. There are four levels. See the table below for specific settings. During trial operation, first set the sensitivity to a lower level. After the actual test, if the vehicle detects no output, the sensitivity should be increased by one level, and so on until the vehicle detector works normally and stably.



6. Automatic sensitivity increase

When the vehicle detector detects the vehicle, it will automatically increase the sensitivity to the highest level. When the vehicle leaves the coil, it will return to the previously set sensitivity. This function is disabled when DIP5 on the panel is set to OFF.

7. Filter mode adjustment

When the environmental electromagnetic disturbance is large, which causes frequent malfunction of the detector, the DIP6 can be pulled to the 0N end to increase the filter coefficient to remove the disturbance. However, it should be noted that using this function when the environment is normal will reduce the sensitivity of the vehicle detector and increase the response time. Normally, DIP6 is pulled to OFF to disable this function. [Caution]: If the vehicle detector is abnormal, you should first check the coil parameters, whether the laying is reasonable, and whether the lead wires are twisted or damaged. Then adjust the operating frequency and sensitivity level, and finally use the enhanced filtering mode.

8. Relay output mode

When DIP7 is pulled to OFF, when the vehicle is detected to enter the coil, d1 (pin 5.6) and relay d2 (pin 3.4) are both turned on until they are disconnected when the vehicle is detected to leave the coil. When DIP7 is pulled ON, the relay d2 (pins 3 and 4) is turned on when it detects that the vehicle has entered the coil, and the relay d2 (pins 3 and 4) is turned off when it detects that the vehicle has left the coil, with a delay of 500. After milliseconds, relay d1 (5.6 pin) is turned on for 500 milliseconds and then turned off.

9. There is an output time setting

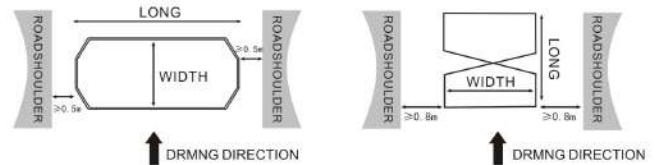
When DIP8 is pulled to ON, it is a permanent existence output (that is, there is always an output when the vehicle is pressed on the coil). When DIP8 is pulled to OFF, it is a limited existence output, and the limited time is 10 minutes (that is, when the vehicle pressure The detector will reset automatically when it is on the coil for more than 10 minutes and re-initialized to none Car status). It is recommended that under normal conditions, water is used for long-term output.

10. Detector reset

When the detector of the east car is powered on, the detector will reset when the reset button on the panel is pressed and the existence time is exceeded in the limited presence mode. After reset, the detector will be initialized to a car-free state.

11. Coil embedding

The coil is generally cut into a rectangular groove, and the high temperature resistant Teflon wire is used to bury multiple turns. After testing, it is filled with asphalt. When there is reinforcing steel under the ground, add 1-2 turns to compensate, and the coil inductance will remain between 80 ~ 500uH. The coil lead must be double-tight to prevent interference.



The length of the coil depends on the lane (Not less than 0.5 meters from the shoulders on both sides)

Car: 1.0 meter wide, 5-7 turns

Minivan: 1.2 meters wide, 5 to 7 turns

Medium truck: 1.5 meters wide, 4 to 6 turns

The length of the coil depends on the lane (Not less than 0.8 meters from the shoulders on both sides)

Large trucks or trailers: 1.8 meters wide, 4-6 turns

12. Key points for coil construction

1. Groove shape: generally rectangular (the corners are beveled)
2. Coil width: about twice the detection height
3. Grooves on the ground: about 4 mm wide and 30-50 mm deep
4. Winding method: cut, clean and dry before winding the coil
5. Wire material: Teflon high temperature resistant multi-strand tinned copper wire
6. Cut section: more than 0.5 square millimeter
7. Coil lead: no connector, must be twisted ≥20 times per meter
8. Adjacent coils: the number of turns should not be the same
9. Adjacent distance: Coil-to-coil distance ≥1 meter
10. Encapsulation material: Encapsulated with asphalt after normal testing

13. Coil material

Taking into account the mechanical strength, high and low temperature aging resistance, acid and alkali corrosion resistance of the actual project, it is recommended to use a Teflon high temperature flexible wire with a square millimeter or more, with a total resistance less than 10 ohms. For projects with harsh environmental conditions and long lead wires, consider 2.5 square millimeters of nylon sheathed wire. Coil inductance: 100uH to 300uH recommended; Coil specifications: No less than 1 * 2 meters; Coil connection wires: No more than 5 Meters, twisted at least 20 times per meter