The CA-550 tilt detector

installation, operation manual

The CA-550 tilt detector detects movement of the car in two axes (x and y). No mechanical parts are used in the detector. Detection is achieved through electronic acceleration metering. The digital analysis used in this detector ensures high resistance against the false alarms. When the alarm is armed (power supply connected) the reference position of the detector is stored in the memory after which the position of the detector is continuously checked, compared and updated. If the tilt of the car is changed by more than 1°, the detector will be triggered.

Specification:

Power	*9 - 16V (DC)*
Power consumption	*typ.1 mA*
Operating temperature	*-40 °C to +85 °C*
Maximum sensitivity (for both axes)	*1° (built-in digital filter)*
Angle of operation with max. sensitivity preservation	*± 45° from reference (horizontal) position*
Installation position of the detector	*± 15° from horizontal (both axes)*
Output	*negative pulse with a duration of 0.5 s*
Maximal output load	*80 mA*

CE

The CA-550 complies with the essential requirements of: 95/56/EC Directive relating to devices to prevent the unauthorized use of motor vehicles and 89/336/EC EMC Directive - Protection concerning electromagnetic compatibility when is used for its intended purpose

Wiring:

Red **Power supply + 12V**. It can be connected either permanently to +12V, or to the switching output of the alarm (where +12V is present when the alarm is armed).

Black ***GND*** – connect to the original grounding of the car.

White **Output** - if the detector is triggered the output will be connected to GND for 0.5 sec. It is short-circuit protected. The output should be connected to the external detector input of the car alarm.

Installation:

The CA-550 tilt detector should be installed on the floor in the interior of the car where there is no danger of mechanical damage or high humidity (the lowest part of the floor). Fix it using a double sided Velcro sticker or by screws. The detector must be installed in a horizontal position with a maximal deviation of ± 15° in both axis (x and y). If the detector is fixed by a screw, only one bigger hole in the middle of the detector should be used. The smaller holes in the corners of the detector are not designed for this purpose. The screw should be tightened carefully so as not to damage the housing of the detector.

Function:

When the alarm is armed (power supply connected) the reference position of the detector will be stored in the memory (max 30 seconds). The position of the detector is continuously checked, compared and updated. If the tilt changes by more then 1°, the output will be switched to ground for 0.5 sec. Default parameters are re-set after detector activation. It can take up to 30 seconds (depends on the amount of detected tilt). If the maximum output load of 80 mA is exceeded, the electronic fuse will temporarily switch off the output. A built-in digital filter ensures that the detector will not be triggered by a short tilt of the car, caused, for example, by sudden burst of wind after which the car will return to its original position.

Maintenance

The device does not require any special maintenance. To check correct functioning, we recommend triggering an intentional alarm from time to time.

Note: Although this product does not contain any harmful materials we suggest you to return the product to the dealer or directly to the producer after usage.