

Technical Data Sheet TOF Counter















1. Main features

- The cutting edge Time-of-Flight technology is used in Parksol TOF proximity sensor for vehicles detection. TOF technology enables to detect vehicles at very wide view angle, fast and reliably.
- Configurable on-board two semiconductor relays enables additional control capability for activating/deactivating barriers, gates, alarms and traffic signs.
 - Standard MODBUS protocol via RS485 interface is used for communication with sensor.
- Most of configurations can also be done using Command Line Interface via micro-USB connection.
 - Integrated temperature and relative humidity sensor.
 - Adjustable timer with alarm indication for individual car parking slot.
 - FreeRTOS real time operating system.

2. Description

Double sided counter can detect the direction of passing through vehicles, hence the counter value can be increased and decreased depending on direction detected. TOF Sensor AB version must be used only for this mode to operate. Horizontal mount is recommended, though any mounting position may be realised. Relay A will generate 100 ms pulse if A to B direction is detected and Relay B will generate 100 ms pulse if direction B to A is detected.

ENTRY/EXIT COUNTER Side B Side A ENTRY EXIT

Fig. 1. Double Sided Barrier Counter horizontal mount.

3. Technical characteristics

3.1 Electrical characteristics

Power supply voltage 16 ... 48 V DC

Power supply current 30 mA RMS, 200 mA peak

Average power consumption 1.5 W at 48 V Pulse power consumption 9.6 W at 48 V Maximum pulse duration 2 x 230 ms

Relay output current 400 mA at 60 V max

3.2 Sensors typical characteristics

Detection method 10MHz modulated 810nm IR light

Field of view 1.2° full angle

Detection range up to 5.5m (at 70 000 lx sunlight)

3.3 Interfaces

RS485 MODBUS protocol, XMODEM

USB 2.0 CLI terminal

3.3V logic UART CLI terminal, debug monitor

3.4 Environment

Work temperature $-30^{\circ}\text{C} \dots +60^{\circ}\text{C}$ Storage temperature $-40^{\circ}\text{C} \dots +85^{\circ}\text{C}$

Humidity up to 95% not condensing

3.5 Other

Housing type IP66

Mounting method Wall / channel mount with screws

Dimension (mm) 136 x 123 x 200

Weight 345 g

Housing colour Grey / transparent