

TRAFFIC DETECTORS TDC1 SERIES

LOW-POWER NON INTRUSIVE PIR TRAFFIC DETECTORS FOR SINGLE LANE TRAFFIC DATA ACQUISITION

SWARCO TRAFFIC SYSTEMS GmbH is a member of the internationally active SWARCO group, the one-stop shop for road markings, signage, signalisation and traffic management – your reliable partner for traffic solutions.

The TDC1 Series are advanced traffic detectors using Passive Infrared technology. Comprehensive traffic data including individual vehicle class, speed, length, occupancy time and time gap are provided via RS 485 databus

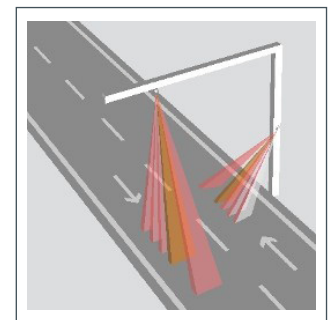
TYPICAL APPLICATIONS:

TDC1 Series detectors are specifically designed for a variety of **Traffic Data Collection** and traffic control applications where low power consumption is required:

- Vehicle counting (volume)
- Individual vehicle speed
- Vehicle classification
- Presence detection

WORKING PRINCIPLE:

TDC1 traffic detectors employ multiple PIR detection zones. A combination of static and dynamic detection channels form a total of five detection zones. The thermal radiation contrast of a vehicle moving into or through the detection zones against the background radiation of the road surface correlates to the passage or presence of a vehicle. The sophisticated signal processing transforms the sensors analog data into digital information for each event without the need for external computing equipment.

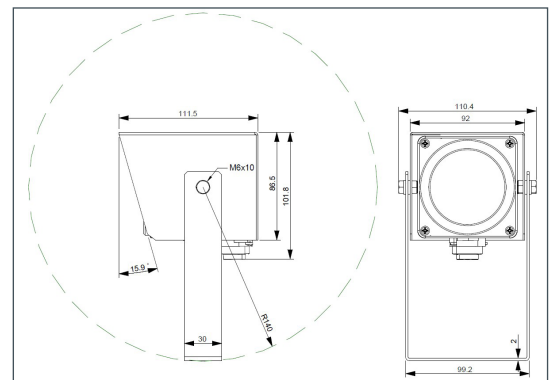


Field of view

MOUNTING:

Recommended mounting points are gantries, over-passes or bridges or alternatively on a pole at the roadside. Clearly superior performance and reliability are a result of:

- Multi channel PIR detection
- Full temperature compensation across entire temperature range
- Sophisticated algorithms eliminating impact of environmental changes



Dimensions



Quality with a promise.
We have been certified
pursuant to
DIN EN ISO 9001

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HIGH QUALITY PRODUCT WITH MULTIPLE FEATURES:

- Ultra low power consumption: ≤ 60 mW, ideal for solar powered installations
- Multi channel PIR detection: Total of five detection zones
- Vehicle classification by length: 3 standard classes
Up to 5 vehicle classes possible (depending on customer length threshold setting)
- Auto calibration: Via according installation software using mounting height and distance to the centre of the observed lane
- Wide mounting height range: Mounting height between 5.5 m and 18 m (max. offset 45° from detector’s mounting location to the centre of the observed lane). Application-dependent limitations apply
- Detection of standing vehicles
- Detection of wrong-way drivers
- Wide operating temperature range (–40 to +70°C): Optimum performance in all weather and climate conditions
- Remote configuration and setup: With according installation software

TECHNICAL SPECIFICATIONS

Supply Voltage	5.5 ... 30 V DC
Power Consumption	typ.10 mA @ 6 V DC
Output (Data Transfer)	RS 485 (other options on request)
Turn-on Time	typ. 20 s from power on
Dimensions	See illustration
Case Material	Polycarbonate, dark grey
Weather Protection Enclosure	stainless steel V4A
Weight	app. 960 g incl. bracket
PIR Sensors	5 channel PIR
PIR Spectral Response	6.5 ... 14 µm
Accuracy counting	typ. ± 3%
Accuracy speed	typ. ± 5% (> 100 km/h); typ. ± 5km/h (≤ 100 km/h)
Accuracy classification	3 standard classes, each 95% The specifications refer to free traffic flow, detector operated in recommended setup
Operating Temperature	–40°C to +70°C
Humidity	95 % RH max.
Sealing	IP 64 splash proof

ACCESSORIES:

Interface RS 485 & Software:

For the communication between detectors and a PC during commissioning and maintenance an interface module in combination with the dedicated software is necessary. The interface module and software have to be ordered separately.

Mounting Accessories

A bracket for mounting the detector on a round pole is available as separate accessory (not included in standard delivery).

Alignment Tool

A mechanical alignment tool for quick and accurate installation is available. The tool can be easily put on top of the device and allows the installer to align the detector using the integrated level and sight.

MODEL OVERVIEW:

- RD_TDC1-PIR



SWARCO TRAFFIC SYSTEMS GMBH

SWARCO TRAFFIC SYSTEMS GMBH is one of the leading suppliers of intelligent traffic systems in Germany. Building on many decades of experience, it offers a wide range of innovative solutions for urban and interurban traffic management, including parking and traffic detection. Its nationwide service and maintenance network guarantees highest possible system availability and improved road safety. With economical, sustainable, and environmentally friendly technologies we help ensure smooth and safe traffic flows.