SWARCO
GECKO-IR
TEMPORARY OR PERMANENT STATIONARY TRAFFIC COUNTING

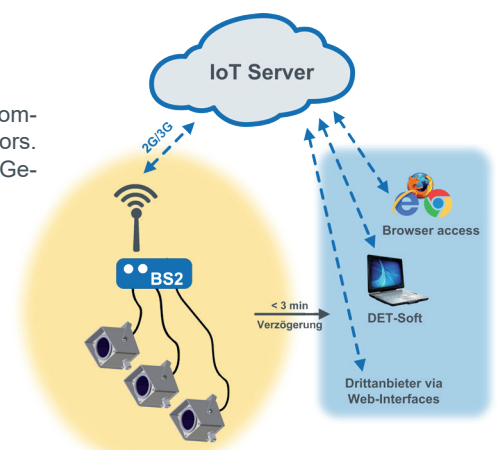## SOLAR-POWERED TRAFFIC COUNTING WITH IOT-INTEGRATION

Traffic models are often not suitable for predicting the effects of changes in road infrastructure. Not because the traffic models are inadequate, but because too many assumptions and no accurate traffic data are available. Temporary or permanent counting stations provide valuable data for optimized analysis.

GECKO-IR

The Gecko IR system was developed especially for solar-powered traffic counting. It comprises the battery-powered BS2-TS counting station and up to four PIR traffic detectors. Supplemented by the cloud-based SWARCO WEB platform and WEB interfaces, the Gecko system is already part of the IoT (Internet of Things).

TYPICAL APPLICATIONS

- Temporary, mobile or permanent stationary traffic counting
- Traffic counting at locations without electricity
- Counting data for the evaluation of road construction projects
- Temporary traffic counting at construction sites, major events, etc.
- Recording of vehicle volumes, speeds and vehicle classes
- Data for updating traffic models
- Assessment of environmental and noise pollution based on traffic volumes
- Full integration in SWARCO MyCity

SWARCO MYCITY

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GECKO-IR WITH IOT-INTEGRATION

INTERNET-ACCESSIBLE TRAFFIC DATA

The BS2-TS is a battery powered, solar equipped counting station. It is equipped with up to four TDC1-PIR traffic detectors. The traffic data is forwarded to the IoT server via mobile radio.

TDC1-PIR impress with their high data quality and flexible mounting range (distance detector to detecting lane from 5.5 m to 18 m). The detectors can be mounted overhead or on the road side, e.g. on gantries, signposts or overpasses, or on street lighting poles.

On the IoT server, traffic data is accessible via browser, additionally it can be retrieved directly from any software a via JSON/REST web interface.

## SELF-SUFFICIENT DATA ACQUISITION

BS2 IoT interface

- Designed for commissioning and operation via the IoT Server
  additional data transfer to customer and third party systems possible
- Equipped with solar panel / battery operated
- Operation of four detectors up to five days without direct sunlight
- Integrated charge controller with the possibility of supply from periodic sources such as street lights
- Integrated 4G modem
- Software update via 4G mobile phone (over-the-air, OtA)
- Small size, low weight, low wind load

TDC1-PIR traffic detector

- 5-channel PIR sensor array with thermal channel
- For monitoring one lane
- Vehicle classification in three length classes
- Large installation tolerance from 5.5 m to 18 m from the lane
- Can be mounted overhead or on the street side
- Detection of stationary vehicles (traffic jam detection)
- Detection of wrong-way drivers
- Maximum data quality in all weather conditions
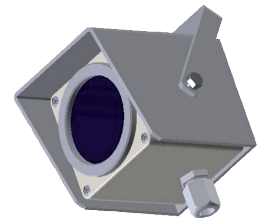
TECHNICAL SPECIFICATIONS

	BS2-TS (incl. battery and solar panel)	TDC1-PIR traffic detector
Supply voltage		5.5 V DC up to 30 V DC
Dimensions (HxWxD)	555 mm x 345 mm x 90 mm	102 mm x 111 mm x 112 mm
Weight	appr. 5.2 kg	appr. 960 g incl. bracket
Operating temperature	-20°C to +55°C	-40°C to +70°C
Humidity	95 % max.	95 % max.
Protection	IP 64 splash-proof	IP 64 splash-proof
Mounting height		5.5 m to 18 m

For further information see the product data sheet and the user manual.

DMSZ zertifiziert nach **ISO 9001** QM 01178

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