

# GECKO BIKE

## AUTONOMOUS TRAFFIC DATA ACQUISITION FOR BICYCLE DETECTION

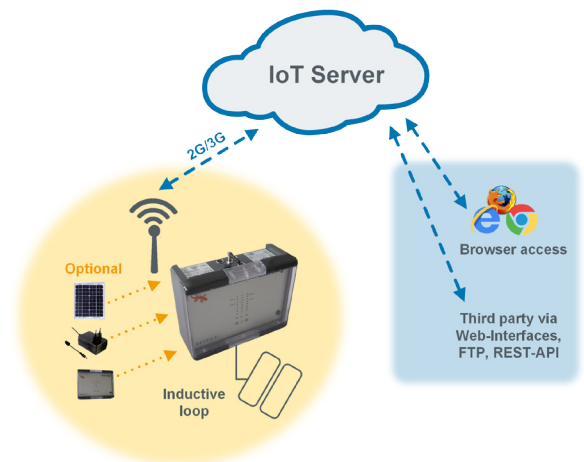
SWARCO TRAFFIC SYSTEMS GmbH is a member of the internationally active SWARCO group, the one-stop shop for road markings, signage, signalisation and traffic management – your reliable partner for traffic solutions.

The Gecko system was especially developed for the autonomous traffic data acquisition with battery supply and data transmission via mobile communication network. Here, Gecko Bike is specialized in bicycle detection on bicycle paths or in flowing traffic, on one lane up to 3 m (Gecko1 Bike) as well as on a double lane up to 6 m (Gecko2 Bike).

Supplemented by the cloud-based SWARCO-WEB-platform and WEB-interfaces, the Gecko system is already part of the IoT (Internet of Things). Share your counting data with the public and raise e.g. the awareness for cycling or document the progress by showing your bicycle projects.

### BENEFITS

- Speed measurement
- Simple, economic installation
- Inductive loops optimized for bicycle detection
- Low running costs for mobile communication network and provision of data
- Very low power consumption, self-sustaining for up to 12 months with battery operation
- Alternative: Operation with mains voltage or photovoltaic installation, autonomous operation for 2 weeks (integrated battery)
- Stable and reliable data acquisition, absolutely insensitive to weather and disturbances
- Vandalism-proof due to various installation options such as stand-alone, pole-mount or typically placed in the ground
- Verification of the data acquisition on location using vehicle readout at the service interface
- Web-based data provision: The data is available everywhere



### ACCESSORIES

Power supply unit for 230 V mains supply

Solar panel Set for autonomous voltage supply

Accu Pack Lithium Ion with operating period of up to 12 months



**GECKO - AUTONOMOUS TRAFFIC DATA ACQUISITION**

**FUNCTION**

Gecko now provides the functions and excellent features of the SWARCO TRAFFIC SYSTEMS inductive loop detectors in an autonomous system for bicycle detection. The core are the DIN-rail mount detectors, which were extended to include data transmission via mobile communication network.

Due to the considerable reduction of power consumption it is now possible to implement an autonomous data acquisition for up to 12 months using an easy-to-install detection system. The alternative connection to mains voltage or the optionally available photovoltaic installation allows permanent operation with an autonomy of two weeks when power supply fails (integrated battery).

Traffic data are transmitted in aggregated form, the interval periods for data acquisition and transmission can be adjusted. Measurement and diagnosis data (e.g. ID of measurement location, state of battery, intensity of mobile communication network, loop failure, measurement frequency) can be accessed at any time via SWARCO-WEB-plattform.

**COMMUNICATION AND EVALUATION**

- Automatic wireless data transmission via GSM modem to the SWARCO-WEB-plattform (SWARCO cloud)
- WEB-based system for visualization, evaluation, documentation and export of counting values
- Data aggregation: Interval data separated by driving direction for number of bicycles and average speed

**TECHNICAL FEATURES**

Power supply	Autonomous battery operation: autonomous time 12 / 6 months (Gecko1 / Gecko2) with mains or solar power supply autonomous time 2 weeks
Interval periods	Data acquisition: 3 / 5 / 15 / 30 min, 1 h - 12 h Data transmission 1 h - 24 h
Interfaces	Service interface GSM modem for data transmission within mobile communication network
Operating temperature	-15°C to +65°C
Protection	IP67
Connections	Supply voltage (with external mains or solar supply) 4 (Gecko1) or 8 (Gecko2) inductive loops Service interface External GSM antenna

**INSTALLATION**



Standard installation  
e.g. for existing cabinets



Pole installation



Ground installation  
(typical for Gecko Bike)



**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.