



smartflow®



becker

LASEC TECHNOLOGY SYSTEMS



ST4RT THE CHANGE

INTRODUCTION

The new version of **Vehicle Tag V3.0**, which normally provides real-time vehicle location from **Smartflow®** servers over Wi-Fi, is now also a Bluetooth-based collision prevention system. The new **Vehicle Tag 3.0** now has the ability to identify and notify the operator of the presence of pedestrians and other vehicles in their surroundings, in order to prevent collisions in underground and surface mining environments.

The system has triple functionality:

- 1) Real-time location of the vehicle to the **Smartflow®** servers via Wi-Fi.
- 2) Collision Prevention System: Providing the vehicle operator with notifications of approaches and detections of pedestrians, vehicles and risk areas identified via Bluetooth.
- 3) Bluetooth communication gateway: Extends the coverage range of the **SmartLamps** to the Wi-Fi Access Points through the Bluetooth coverage emitted by the **Vehicle Tag**.

BENEFITS

- Multifunctional system with high practicality characteristics.
- Indicator screen for counting and target detection (pedestrians and/or vehicles).
- Visual and auditory indicator for alert notification of proximity of targets.
- Visual indicator to detect entry to risk areas.
- Transceiver functionality for location and tracking.
- Approach function for exclusion of lamps inside the vehicle.
- Boarding function to exclude vehicles for interaction without notice.
- Updates and configurations through Over The Air (OTA).
- Electronic detection of Smart Beacons.
- Compatibility with other **Smartflow®** products.
- Server connection indicator.
- BLE Gateway function.
- Availability of 4 GPIOs for telemetry recording in real time and outside of coverage.
- Recording of geolocation events through the use of beacons in real time and out of range.
- Traceability of geolocation inside the mine without coverage. 1*
- Ability to save historics for up to a month.



1* This Feature requires a **Smartflow®** viewer update

VEHICLE TAG 3.0 SPECIFICATIONS

OPERATING VOLTAGE	10 V to 40 V
POWER CONSUMPTION	500 mA
USED TECHNOLOGY	BLUETOOTH 5.0 & WI-FI 5
SOUND PRESSURE LEVEL	50 dB to 106 dB
PROTECTION DEGREE FOR OUTDOORS	IP67
DIMENSIONS L x W x H	119.4MM X 66 MM X 40.65
WEIGHT	500 GR
WARRANTY	1 YEAR
BLUETOOTH POWER (dB)	4 dB
WI-FI POWER (dB)	10 dB
INDUSTRIAL GRADE ELECTRONICS	Class 3
STORAGE	16GB
REAL TIME SYSTEM	RTC (REAL TIME CLOCK)

TECHNICAL CHARACTERISTICS OF FUNCTION

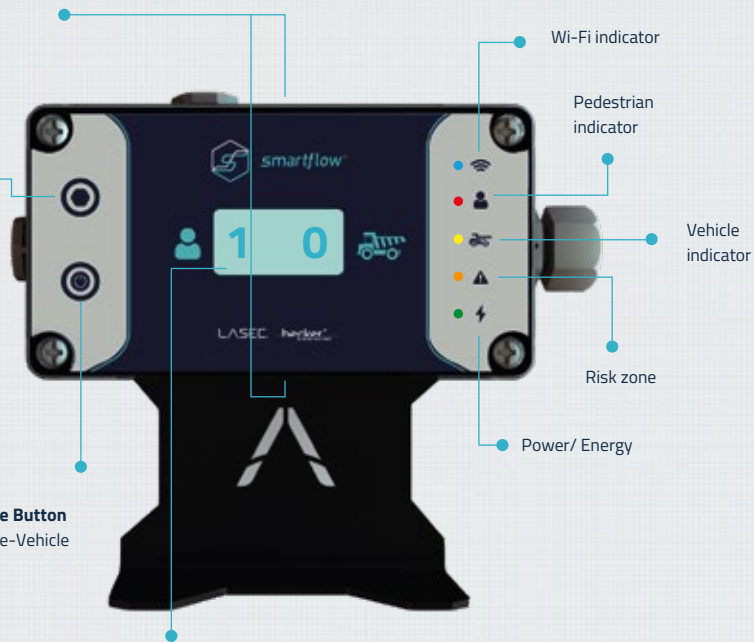
- Stand Alone operation capacity.
- Target notification and counting
- Proximity alert notification.
- Recognition between people and vehicles.
- Safe boarding of personnel.
- BLE Gateway function.
- Great detection range distance.
- Real-time notifications.
- Detection range of 80 to 100 meters.
- External vehicle power supply 12v to 24v.
- Control and/or sampling of telemetry data that can be viewed within the Smartflow system in real time.
- Static or Dynamic IP Assignment (DHCP)
- Internal Bluetooth antenna

Perimeter Leds:

- Blue = Boarding mode.
- Yellow = Request to board by another vehicle.
- Red = Target Proximity Alert.

Boarding Button
of passengers and/or vehicles

Approach Acceptance Button
Vehicle-Vehicle

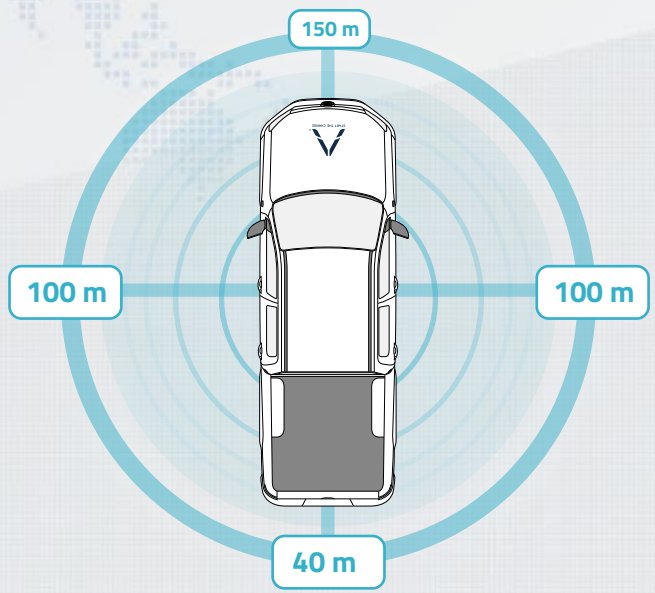


Notifier screen:

- Pedestrian counting
- Vehicle count
- Textual notification of entry to risk areas

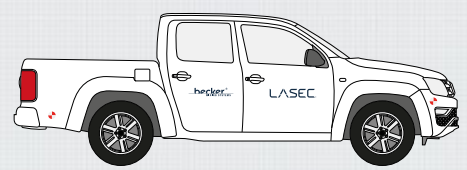
COVERAGE RADIUS

- Average coverage radius: 40 m to 150 m. (Static Vehicle)



COVERAGE DISTANCE

- Average coverage distance: 100m
- Moving Vehicle 20-30km/hr**



Detection distance: 100m

Proximity alert distance: 20-30m



PART NUMBERS

Part Number	Description
SF-PAS-ST-3.0	Tag Vehículo 3.0 Prevención de Colisión con Real Time/Históricos/4GPIIO

INSTALLATION OVERVIEW



Board

Sucker Cup



ST4RT THE CHANGE

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