SmartPK ProW

SmartPK ProW is fixed equipment with or without auxiliary display capable of monitoring vehicle traffic through intrusive (inductive loop) or non-intrusive (Doppler) sensing. It records metrological and/or non-metrological violations using narrow- and wide-view cameras. It also contains specific sensors for performing weigh-in-motion with statistical purpose.

Applications

Recommended for automatic monitoring and recording of violations on highways, expressways, arterial highways and local roads. Possibility of preselecting vehicles and directing only those with the potential of being over the allowed weight limit for the road to the checkpoint. Data collection, such as category, weight, number of axles, among others.

Features

- identification and registration number:
  - travelling over the speed limit;
  - running red light;
  - stopped over the pedestrian crosswalk;
  - improper turns where prohibited by traffic signals;
  - U-turns where prohibited by traffic signals;
  - driving on the shoulder;
  - driving in the wrong direction;
  - in places and times not permitted by regulation;
  - in a lane designated exclusively for a given type of vehicle.

  Vehicle classification into categories;
- Front and rear vehicle license plate capture;
- statistical survey of traffic on site;
- Display of the speed measured to the driver;
- Automatic license plate recognition (OCR).
- Statistical and violation records, including data such as:
  - speed;
  - weighing measurements;
  - direction, lane and location;
  - date and time;
  - vehicle category;
  - image of the narrow rear and/or front capture;
  - image of the wide-view capture;
  - equipment identification;
  - vehicle license plate identified;

  violation specific data (when not metrological).

Display

Number of digits:
- 2 digits – speeds up to 99 km/h
- 2 ½ digits – up to 199 km/h
- 3 digits - up to 999 km/h

Luminous intensity:
- > 400 cd*

Active elements:
- > 300

Visibility:
- Over 100 m**

** Display the digit 8;*
*** In moderate fog and rain conditions*

Camera

Color management:
- Day/night

Technology:
- IP

Resolution (pixels):
- Varied from 1 to 5 MP

Capture form

Capture type:
- Front and/or rear

Lighting system

Lighting:
- Infrared illuminator

Monitoring system

Telemetry:
(The Telemetry System allows parameterizable actions to be configured for the secure shutdown based on monitored items)
- Door open;
- Equipment status;
- panel temperature;
- Detection of lack of electricity;
- sensor operation;
- display operation;
- camera operation;
- data link operation;

Self-diagnosis:
- Performed at equipment boot and, when manually triggered, it is possible to check all systems monitored by telemetry.

Communications

Standard data outputs:
- Ethernet and USB

Communication devices:
- TCP-IP standard modem

Supported Channels:
- Fiber optics
- Radio loop
- Satellite Link
- XDSL
- 3G/4G

Technical specifications

Sensors

Intrusive:
- Inductive loop (installed in the lane)

Number of samples: 1000 samples/second

Non-intrusive
- Doppler sensor

Equipment features

Supply voltage:
- CA (127 V or 220 V (-15% to +10%) – 50 Hz / 60 Hz)

Average power:
- 110 W to 131 W

Maximum power:
- 150 W to 255 W

Energy consumption:
- 78 to 98 kWh/month

Electrical features of the Signaling Panel

Supply voltage:
- 127 or 220 VAC

Average power:
- 7 W to 28 W

Maximum power:
- 14 W to 56 W

Energy consumption:
- 6 to 24 kWh/month

Note: Values per lane; variations according to vehicle flow and configurations.

Dimensions

Width:
- 0,9 m

Height (post-installed):
- 5 m

Depth:
- 0,5 m

Mass:
- 70 kg*

**Average value due to the presence of optional items*

Operating environmental conditions

Temperature:
- -10°C to +55°C
-

Degree of Protection: IP54

Regulation

INMETRO ordinances:
- 1086/2013; 283/2013; 014/2014; 033/2014; 072/2014; 164/2014; 544/2014

Standards met

Structural project:
- NBR8800; NBR6123; NBR14762; NBR6355; NBR8855; NBR9971; NBR5871; NBR10062; NBR8851; NBR10065

Electrical Project:
- IEC 61000-4-3; IEC 61000-4-4; IEC 60068-2-30; IEC 60068-2-1; IEC 60068-2-2; NR 10; NR 18; NBR 5410; NBR 5419

Example of structure

Application with intrusive technology