## **ROAD TELEMATICS**

## **HIGHLIGHTING OF LEVEL CROSSINGS**

- Traffic signs with the reflex foil
- LED lamps installed in the road area
- Information on the direction of the arriving train and track at multitrack line
- High durability of the technology
- Improvement of level crossing safety

## **General Description**

Highlighting the level crossings is an important factor in road safety in places of level crossing of roads with railway lines.

Reflective and light elements alert the driver at a sufficient distance in front of the level crossing that he is approaching the road dangerous place. When a train approaches a level crossing the driver is warned not only by the LX warning board red lights, but also by road flashing LED lights. An integral part of a safer level crossing is the indicator of approaching trains. Displaying the arrows showing the occupancy

> of a specific track can prevent an early crossing of the track by undisciplined and impatient drivers in a time between passages of a next train on the other track.

The indicator of approaching trains can be used also on level crossings with barriers to improve the awareness of waiting drivers. The situation when, after passage of the train, the barrier beams are opened for a brief moment can be avoided. This moment can be exactly critical.

## **Basic Technical Description**

The current traffic sign A29 – "Level crossing with barrier" or A30 – "Level crossing without barrier" and signal area panels A31, in the distance 240, 160 and 80 m in front of the level crossing are equipped by the back-











ground reflective foil. In the road surface just before the level crossing there are installed red LEDs with high luminous intensity. Thanks to such perpendicular line of lights across the road the level crossing can be visible even from a distance of several hundred meters.

At a time when the train approaches the level crossing the road LEDs start flashing in the same frequency as the red lights on the warning board. Besides this warning the driver is informed about the direction and the track of an arriving train by lighting of red arrows on the approach indicator installed on the back side of the opposite LX warning board.

For situations where the level crossing is safeguarded only by the warning cross the yellow road LEDs can be used. They can work, depending on specific requirements, as an individual units fed by solar power or as interconnected system of lights connected an external energy source. Basically even such level crossing can be hardly overlooked.

Lighting modes can be set up in different ways. There is an option for full-time continuous lighting or the operation in a poor visibility only. Using motion detectors the lighting modes can warn the drivers of approaching vehicle (for instance by flashing).



