

About SHERLOG

For 27 years SHERLOG has specialized in security, search and monitoring of static and moving objects. The company uses its own radio frequencies for radar systems managed by its parent company SHERLOG Technology, a.s.

SHERLOG has a global presence, but it is a purely Czech company with Czech capital and its own development. We offer comprehensive product solutions for our customers. On the domestic market, SHERLOG is a leader in its field and one of the top companies in Europe. SHERLOG's services are actively used by approximately 7,500 companies, not only in the Czech Republic and Europe, but also in South America and the Middle East.

SHERLOG NG

In 2021, SHERLOG NG (New Generation) was spun off from the parent company SHERLOG TECHNOLOGY. The company is dedicated to special projects that can be tailored to the customer's needs or to develop complete customized system solutions. It uses SHERLOG Security's unique radio network and its own application monitoring solution for its projects.

Problems of regional rail transport

In the last two years there have been several accidents in the Czech Republic with loss of life and major material damage. If further accidents are to be prevented, solutions must be put in place to substantially improve the safety of rail transport.

SHERLOG NG solutions - SHG D3R mobile radio units

Mobile radio units (SHG D3R) are a new element to increase safety on railway lines. Their task is to monitor traffic, detect potential collisions between trains and warn the driver of danger in good time. They also allow the driver to send a distress signal in the event of an emergency. They function as a number box and provide train position information with an accuracy of up to 40 cm.

One advantage is that SHG D3R units are completely independent of third-party infrastructure, so they work reliably in tunnels, for example, even in places without GSM coverage.

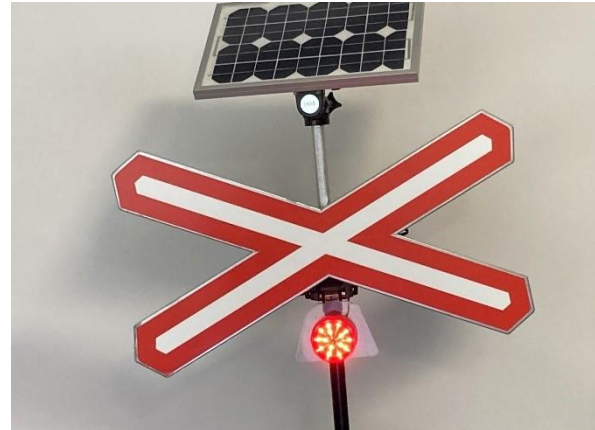
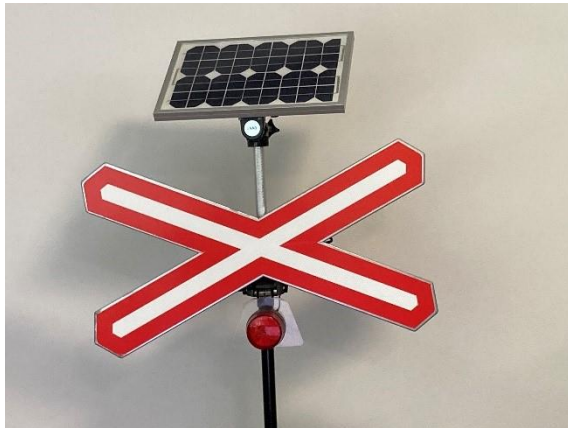
The deployment of SHG D3R on railway lines can make a significant contribution to collision prevention and the protection of passengers, personnel and property.



Extended functions of SHG D3R - signalling at unprotected level crossings (pedestrians)

Signalling, warning at unprotected level crossings:

The SHG D3R-cross radio unit placed on the marking of an unprotected level crossing monitors trains in the vicinity and tracks their relative position, speed and direction. If a train with a SHG D3R unit approaches within a specified distance from the level crossing, the SHG D3R-cross unit triggers a warning signal (both audible and light) to inform road users of the approaching train. After the train has crossed an unprotected level crossing, the warning signal is automatically switched off.



Technical features SHG D3R - crosses

1. Technology.

2. Communication frequency: the SHG D3R units communicate in the 146.50 MHz band, allowing reliable and highly available communication between the units. Communication is encrypted and unbreakable. It is functional even in areas without GSM/GPRS signal.

3. Peer-to-peer communication. Communication is highly available, trains can see each other in difficult, rugged terrain and tunnels, even in places where phones and data don't work.

4. Each SHG D3R unit is equipped with a **precision GPS chip** that allows continuous positioning of the train with an accuracy of 40 cm.

5. Safety function: the SHG D3R units monitor a set of defined parameters, including the braking distance between trains.

6. Autonomous solution - SHR D3R-cross units are an autonomous solution that does not require external power supply or any third party communication infrastructure (GSM/GPRS).



<https://www.youtube.com/watch?v=9YUg3mKKQYA>