

## The gamma and neutron radiation contamination monitoring system

The Radiation Monitoring Systems of the PI-MSKA series are devices based on dosimetric gates. It was designed to detect a very low gamma and neutron emissions. The device meets the PN-EN standard 62022 for permanently installed inspection and detection monitors of gamma radiation of emitters contained in suitable materials or non-recyclables, transported by vehicles. It also complies with ANSI N42.35 - American National Standard for Evaluation and Performance of monitors for detecting radiation generated by materials transported by railroads, cars and other means of transportation.

The system eliminates a need for costly neutralization of consequences of radioactive contamination of areas, e.g. landfills, scrap, rubbish, equipment, workplaces - steel mills, products and personnel by continuous monitoring of selected areas, e.g. car gates, railway gates, and pedestrian crossings.

The system itself is safe and does not generate ionizing radiation.

Highly sensitive sensors in conjunction with a technology-based CCU control unit computer allow to classify the PI-MSKA systems as the highest class in this equipment group.

**We provide you with a free professional advice when choosing the right configuration of the system for your needs.**

### The system includes:

- Detection unit with 1 to 8 detectors;
- CCU control unit with the touch panel;
- Vehicle presence sensor in the monitored zone.

### Functions:

- Innovative design with various detectors;
- Statistical analysis of alarms and background measurement;
- Real-time measurement;
- On-line and off-line monitoring;
- Archiving of measurements and alarms;
- Alarm notifications via Internet and GSM;
- Easy to install and easy to use;
- Emergency power supply;
- The system complies with the PN-EN 62022 and ANSI N42.35 standards.

### Additional program elements:

- video recording of vehicles;
- automatic recognition of license plates;
- geometric quantitative measurements of vehicles;
- unlicensed radio communication.



PI-MSKA system with a top detector and two detectors placed opposite each other



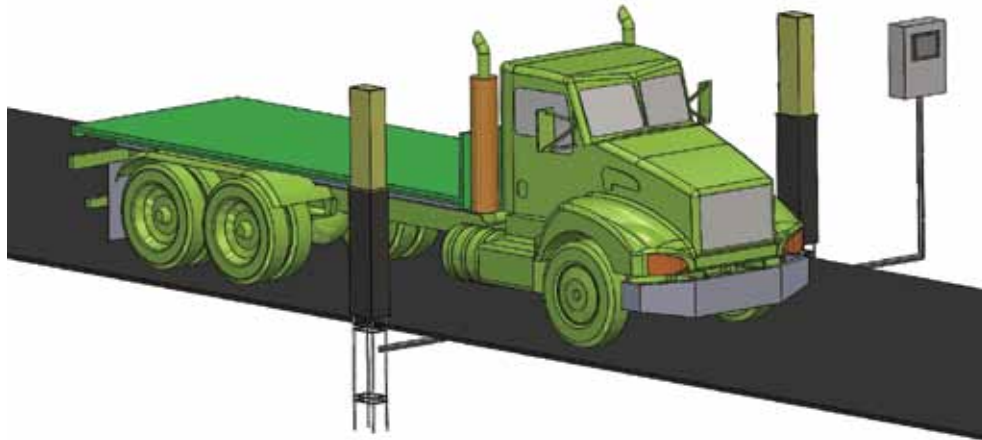
PI-MSKA system with two detectors placed opposite each other



PI-MSKA Railroad system with top detector and two detectors facing each other

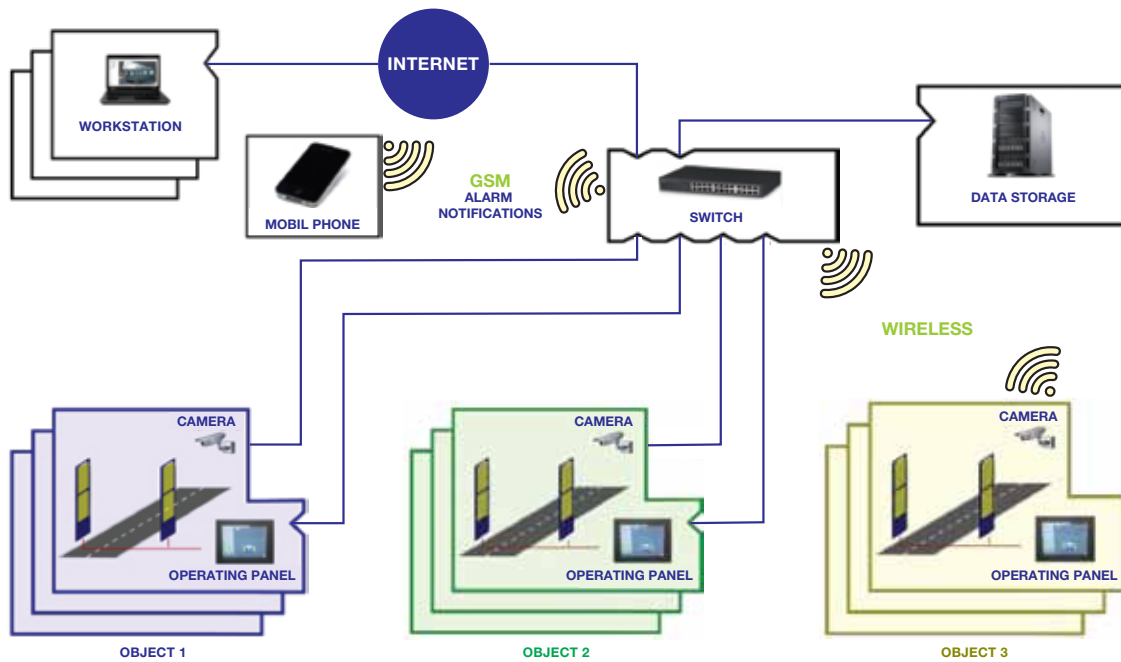
#### Typical application:





Visualization of the vehicle's passage through the monitoring system

**The remote system installed on one or multiple objects**

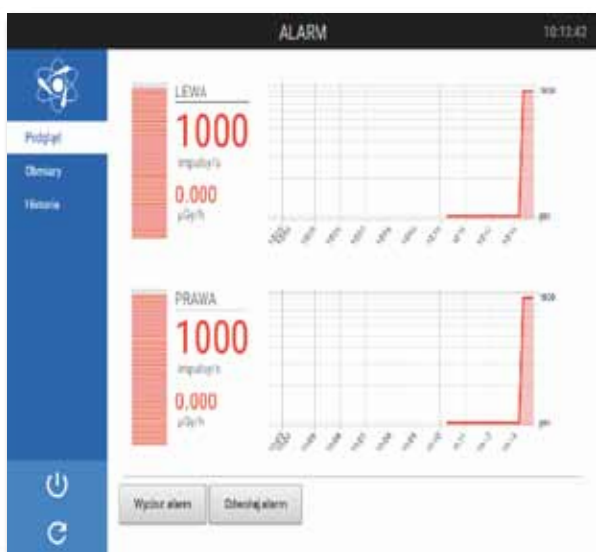


The PI-MSKA system installed above the conveyor belts



## System benefits

- convenient installation
- capability to work in extreme temperatures (-35 ° C to + 50 ° C)
- radiation detection:
  - some Ci for Cs137;
  - 10,000 n / s for Cf 252;
- value and graphical diagram for each detector radiation dose:
  - $\mu\text{Gy} / \text{h}$  for gamma irradiation;
  - n / s /  $\text{cm}^2$  for neutron radiation;
- data transmission via radio or cable.



Alarm mode



Measure Mode



**POLON - IZOT sp. z o.o.** continues business activities of world-known company POLON United Nuclear Devices Works, established in 1956 which functioned as Office of Nuclear Technology Devices.

We closely co-operate with Central Radiological Safety Laboratory (Warsaw), Radiochemistry and Nuclear Technology Institute (Warsaw), Atomic Energy Institute (Swierk) and Institute of Physics at Warsaw University. Our long experience in narrow specialization allows us to reduce production costs, what gives our products very competitive price.

The company holds Permits of the Ionization Radiation Application Supervision Department of the National Atomic Agency of Poland for the manufacture of isotopic equipment and XRF spectrometers.

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