

## Contamination Monitoring System – Dosimetry Gateway

Radiation Monitoring Systems of the PI-MSKA series are devices based on dosimetry gates. It is designed to detect very low-level emissions of gamma radiation and neutrons.

The system is based on the guidelines of EN 62022 for the permanently installed monitors for the control and detection of gamma-ray gamma emitters contained in recyclable and non-recyclable materials transported in vehicles, as well as based on the standards of ANSI N42.35 - American National Standard for Evaluation and Performance monitors for the detection of radiation generated by materials transported by rail, road and other modes of transport.

The system avoids costly radioactive contamination of areas: landfills, scrap metal, rubbish, equipment, workplaces - smelters, products and personnel by continuously monitoring selected areas e.g. vehicle gates, railway gates, pedestrian and vehicular traffic crossings. The system itself is safe, generating no ionising radiation. Highly sensitive sensors in combination with a computer-based CCU controller make it possible to classify the computer technology makes it possible to classify PI-MSKA systems as first-class.

**We can provide you with expert and free advice on choosing the correct system configuration.**

### The system includes:

- A detection unit containing under 1 to 8 detectors;
- CPU control unit with touch panel;
- Vehicle presence sensor in the monitored zone.

### Functions:

- Innovative design with different 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;
- Alarm criteria based on PN-EN 62022 i ANSI N42.35

### Additional programme elements::

- Video recording of vehicles;
- Automatic recognition of registration plates;
- Geometric quantitative vehicle surveys;
- Radio communication in unlicensed band

Typical applications for industries:



PI-MSKA system with an upper detector and two detectors positioned opposite each other



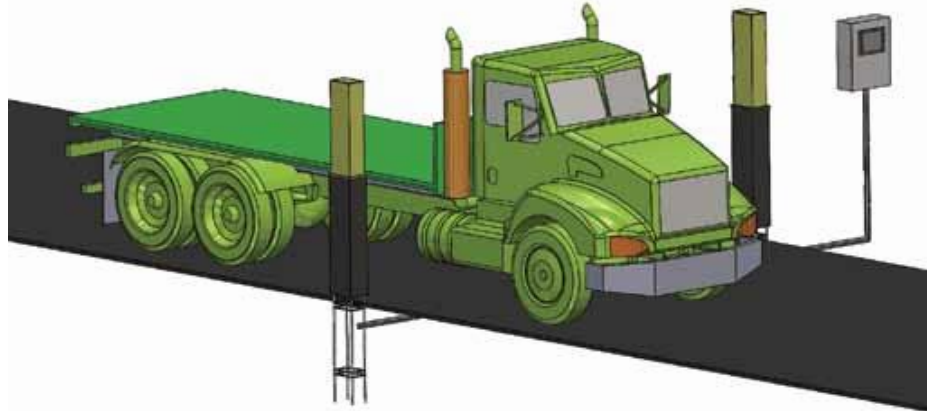
PI-MSKA system with two detectors placed opposite to each other



PI-MSKA rail system with an overhead detector and two detectors arranged opposite each other

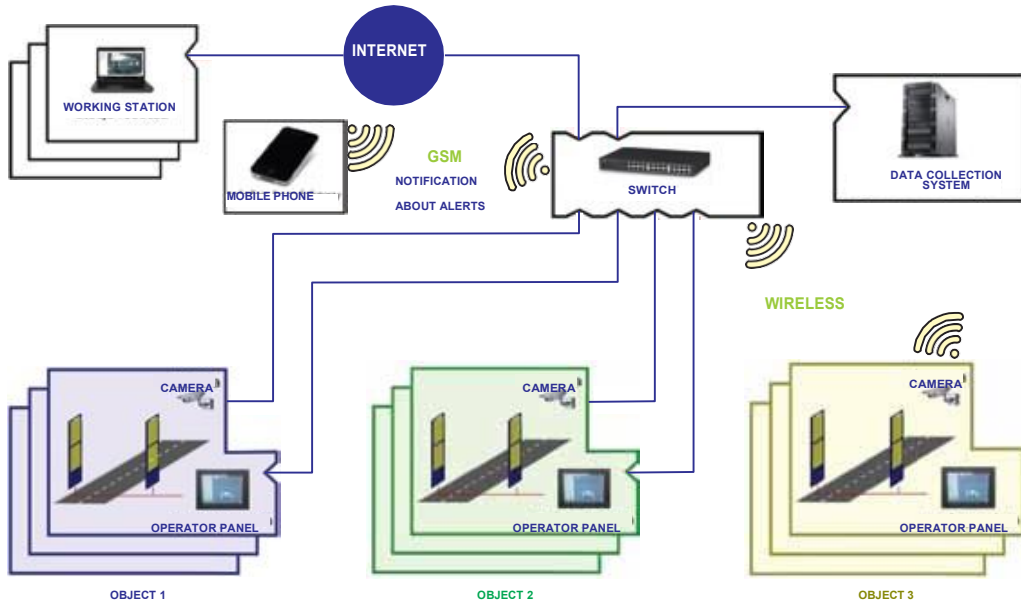
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**Visualisation of the passage of the vehicle through the monitoring system**

**Remote system for supervising the work of Stationary Radiation Monitors installed on one or more sites**



**PI-MSKA system mounted above belt conveyors**

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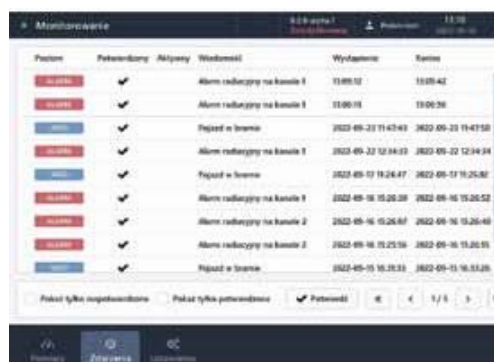


## Benefits of the system:

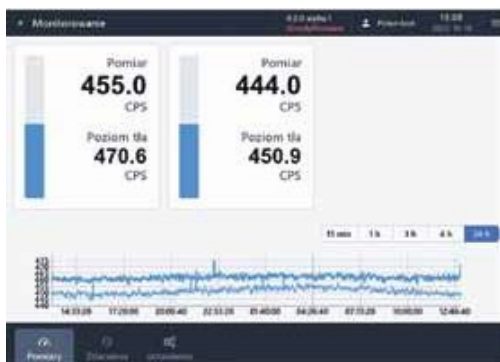
- convenient installation,
- modular design,
- Can operate in extreme temperatures (-35 °C to + 50 °C ),
- detection of trace amounts (well below natural background) of gamma and/or neutron radiation,
- on-line graphical and digital chart for each detector including conversion to:
  - $\mu\text{Gy} / \text{h}$  for gamma radiation (optional),
  - $\text{n} / \text{s} / \text{cm}^2$  for neutron radiation (optional),
- event archiving,
- bidirectional remote communication via radio or cable.



Monitoring with triggered alarm on one column



Monitoring of events-history



Natural background monitoring



Password-protected user profiles

**POLON-IZOT** is a Polish manufacturer of measuring equipment for laboratories and industry. We are a continuation of the activities of the world-famous world-renowned company POLON Zjednoczone Zakłady Urządzeń Jądrowych, founded in 1956 and operating as the Office for Nuclear Technology Equipment. We can therefore boast therefore boast over 60 years of technical achievements.

**Our mission is to create our own advanced solutions technical solutions for both online and at-line measurement equipment or typical laboratory products.**

**We are prepared to manufacture measuring and control equipment to individual orders.**

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