RADIATION MONITORING SYSTEM
PM520

All-in-one easy customized solution for the effective detection of gamma and neutron sources to ensure radiation security on the Customer facility.

PM520 system has flexible configuration and consists of main Processing Unit and up to 8 wall-mounted Gamma and Neutron Detectors of different sensitivities and measurement ranges (BDG2, BDG3, BDN from PM1403 series).

The detectors are connected to the main unit via the RS-485 lines up to 1000 m, and they are installed at the entrances, checkpoints of buildings and areas.

This configuration allows to scale the range of controlled area and transfer measurement data to the single coordination center.

The Processing Unit can have up to 4 (PM520-04) or up to 8 (PM520-08) connected probes.

PM520 Processing Unit has two independent alarm thresholds (ATTENTION and DANGER) and one search threshold. It processes dose rate measurements from distributed radiation detectors over the area and alerts users if thresholds are above the average background by visual and sound alarms.

PM520 can be supplied with PC control unit with the installed Configuration Software for the adjusting settings, sensitivity and alarming thresholds of particular detectors.

Additionally PM520 can be equipped with external alarming devices and has possibility for integration into Customer security system.

Features
- Various radiation detectors (GM tube, CsI, He-3) for different tasks of radiation safety
- Radiation monitoring of large areas and remote separate locations
- PC connection for control of settings
- Detectors environmental protection IP 65
- Operating temperature range -20 to +50 °C

Benefits
- Suitable for use by untrained personnel
- All-in-one solution for detection of gamma and neutron radiation source in secured areas
- Up to 8 external gamma and neutron detectors
- Easy configurable and flexible design for convenient installation
- Indoor and outdoor use
- Cost effective alternative for Pedestrian Portal Monitor
- Convenient deployment and installation
- Up to 1000 m distance between detectors and main unit

Application
- Nuclear Facilities
- Waste Management
- Areas and Buildings with limited access
- VIP buildings

**Specifications**

**Processing Unit**

- **Connection**
  - PM520-04 – up to 4 detectors
  - PM520-08 – up to 8 detectors
- **Connection Type**
  - RS-485 for detectors; USB for PC
- **Operation range** up to 1000 m
- **Alarm**
  - Internal audible and light (LED); external audible module can be connected
- **Output**
  - 8 (PM520-04) / 16 (PM520-08) safety relays for integration into the security system (60 V, 320 mA)
  - 2 additional relays. One for external alarm unit, second for faults (60 V, 320 mA)
- **Configuration**
  - Wall Mounted
- **Protection**
  - IP65
- **Power**
  - External Power Unit 220/110 V or USB
- **Operation temperature** -20 – +50 °C

**Detectors**

- **BDG2-PM1403**
  - Gamma Radiation Detector
  - GM tube
  - Energy range: 0.03 - 3.0 MeV
  - DER Measurement range: 0.1 µSv/h - 10 Sv/h

- **BDG3-PM1403**
  - Gamma Radiation Detector
  - CsI(Tl)
  - Energy range: 0.05 - 3.0 MeV
  - DER Measurement range: 0.1 - 40 µSv/h

- **BDN-PM1403**
  - Neutron Radiation Detector
  - He-3
  - Energy range: 0.025.10^5 - 14.0 MeV
  - DER Measurement range: 1 - 5000 µSv/h

Design and specifications of the device can be changed without further notice.