

RADIATION MONITORS PM5000P SERIES

RADIATION CONTROL OF PEDESTRIANS, BAGGAGE AND GOODS AT CHECKPOINTS

Purpose

Radiation monitors PM5000P series are a highly sensitive radiation monitors designed to detect radioactive materials providing continuous automatic control of pedestrians and luggage at different check-points.

The Monitors are suitable both for indoor and outdoor installation.

When radioactive materials are detected or when the current background level threshold is exceeded, audible and visual alarms are triggered and alarm information is transferred to a computer.

If there is no mains power supply, the Monitors will be automatically powered from the built-in accumulator battery. The battery power enables at least 8 hours of RPM operation.

Features

- High sensitivity due to the large volume of detector
- Several monitors can be controlled from one PC
- Storage of event history in non-volatile memory
- Communication with a PC via LAN (Ethernet)
- Advanced data processing algorithms
- Video monitoring system (optional)
- Audible and visual (light) alarms
- Indoor and outdoor installations
- Automatic, 24/7 operation

Application

- Customs check points
- Cross border check points
- Check points in banks, offices, etc
- Check points at nuclear power plants
- Advanced data processing algorithms
- Nuclear waste disposal and storage sites

Monitoring

- Pedestrians
- Luggage



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Specifications

Model	Position of the detection units	Max. speed, km/h	Parameters of the control zone W × H, m	Minimum detectable amounts of radioactive materials								
				²⁴¹ Am, MBq (μCi)	¹³⁷ Cs, MBq (μCi)	⁶⁰ Co, MBq (μCi)	¹³³ Ba, MBq (μCi)	²³⁸ U, g	²³⁵ U, g	²³⁹ Pu, g	²³⁹ Pu, g (4 cm Pb)	²⁵² Cf, neutron/s
PM5000P (gamma)	I	5	1.0 × 2.0	0.4 (11)	0.08 (2)	0.04 (1.1)	0.05 (1.25)	470	30	0.8	–	–
		5	1.5 × 2.0	0.7 (19)	0.13 (3.5)	0.07 (1.9)	0.08 (2.16)	815	50	1.4	–	–
PM5000P-01 (gamma)	II	5	1.0 × 2.0	0.12 (3.2)	0.022 (0.59)	0.012 (0.32)	0.013 (0.36)	140	8.5	0.24	–	–
		5	1.5 × 2.0	0.175 (4.75)	0.033 (0.88)	0.0175 (0.475)	0.02 (0.54)	205	12.5	0.36	–	–
PM5000P-02B (gamma, neutron)	I	5	1.0 × 2.0	0.75 (20)	0.12 (3.2)	0.65 (1.8)	0.075 (2)	870	47	1.4	110	6500
		5	1.5 × 2.0	1.29 (35)	0.21 (5.6)	0.11 (3)	0.13 (3.5)	1500	80	2.3	188	11250
PM5000P-03B (gamma, neutron)	II	5	1.0 × 2.0	0.2 (5.5)	0.032 (0.87)	0.018 (0.47)	0.02 (0.55)	250	13.4	0.4	42	2500
		5	1.5 × 2.0	0.33 (8.75)	0.048 (1.3)	0.026 (0.71)	0.03 (0.8)	380	20	0.6	62	3700

Alarms:

audible and visual (light)

Gamma radiation energy range:

from 20 keV to 3.0 MeV

Ingress protection: IP65

Power supply:

AC 85-264 V, 50/60 Hz or built-in 12 V battery within 8 hours (backup)

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

Operating conditions

- temperature: from –30 °C to 50 °C
- relative humidity: up to 100 % at 40 °C
- atmospheric pressure: from 84 to 106.7 kPa

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