



RADIATION PORTAL MONITORS PM5000A SERIES

Innovative Radiation Detection Technologies Since 1992

RADIATION PORTAL MONITORS PM5000A Series

False alarm rate:
is set by the user

Power consumption:
Not more than 75VA

Power requirements:
95-250VAC 50/60Hz or battery (12V) with
minimum 8 hours life after external power failure

Operating temperatures:
-30 ...+50 °C
-50 ...+50 °C on customer demand

TECHNICAL SPECIFICATIONS

Model	Source velocity, km/h, not more	Width and height m	Minimum detectable amounts of nuclear and radioactive materials*							
			²⁴¹ Am, MBq(uCi)	¹³⁷ Cs, MBq(uCi)	⁶⁰ Co, MBq(uCi)	²³⁸ U, g	²³⁵ U, g	²³⁹ Pu, g	²³⁹ Pu, g (4cm Pb)	²⁵² Cf, neutron/s
PM5000A-01	5	3,0x4	0,5 (13)	0,08 (2,2)	0,045 (1,2)	480	32	0,9		
	8	6,0x4	1,7 (46)	0,28 (7,6)	0,15 (4)	1700	105	3,1		
PM5000A-01H	8	6,0x4	1,29 (35)	0,21 (5,7)	0,12 (3,2)	1300	80	2,3		
	20	6,0x4	1,9 (5,1)	0,31 (8,4)	0,17 (4,6)	1900	120	3,4		
PM5000A-04	5	1,5x2	0,87 (24)	0,14 (3,8)	0,08 (2,2)	870	60	1,6		
PM5000A-04H	5	1,5x2	0,67 (18)	0,11 (3)	0,06 (1,6)	660	43	1,2		
PM5000A-05	5	3,0x2	0,61 (16,5)	0,1 (2,7)	0,055 (1,5)	610	40	1,1		
	8	6,0x2	2,3 (62)	0,38 (10,3)	0,21 (5,7)	2300	150	4,2		
PM5000A-05H	5	3,0x2	0,46 (12)	0,08 (2,2)	0,045 (1,2)	460	32	0,9		
	8	6,0x2	1,8 (49)	0,29 (7,8)	0,16 (4,3)	1800	110	3,2		
PM5000A-08	5	1,5x2	0,87 (24)	0,14 (3,8)	0,08 (2,2)	870	60	1,6	120	7000
PM5000A-08H	5	1,5x2	0,67 (18)	0,11 (3)	0,06 (1,6)	660	43	1,2	120	7000
PM5000A-09	5	3,0x2	0,61 (16,5)	0,1 (2,7)	0,055 (1,5)	610	40	1,1	85	5000
	8	6,0x2	2,3 (62)	0,38 (10,3)	0,21 (5,7)	2300	150	4,2	250	15000
PM5000A-09H	5	3,0x2	0,46 (12)	0,08 (2,2)	0,045 (1,2)	460	32	0,9	85	5000
	8	6,0x2	1,8 (49)	0,29 (7,8)	0,16 (4,3)	1800	110	3,2	250	15000
PM5000A-10	5	3,0x4	0,5 (13)	0,08 (2,2)	0,045 (1,2)	480	32	0,9	60	3300
	8	6,0x4	1,7 (46)	0,28 (7,6)	0,15 (4)	1700	105	3,1	160	9300
PM5000A-10H	5	6,0x4	1,29 (35)	0,21 (5,7)	0,12 (3,2)	1300	80	2,3	160	9300
	20	6,0x4	1,9 (5,1)	0,31 (8,4)	0,17 (4,6)	1900	120	3,4	280	17000
PM5000A-12	5	1,5x2							120	7000
PM5000A-13	5	3,0x2							85	5000
	8	6,0x3							250	15000
PM5000A-14	5	3,0x4							60	3300
	8	6,0x4							160	9300
	20	6,0x4							280	17000

*for natural gamma and neutron radiation background level and not more than 1 false alarm per 10000 passages of controlled objects throughout monitoring area

Design and specifications can be changed without notice

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Radiation Portal Monitors (RPMs) are highly sensitive fixed-installation systems designed to automatically detect radioactive and nuclear materials illicit trafficking.



Applications:

- Airports
- Seaports
- Rail stations
- Customs and border check points
- Nuclear plants and other facilities of the nuclear industry
- Nuclear waste disposal and storage sites
- Scrap metal industry
- Governmental offices, banks and post offices

Monitored objects:

- Trains
- Trucks
- Cars
- Pedestrians
- Luggage



DETECTION



ALARM

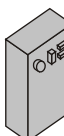


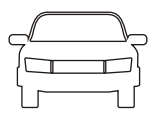
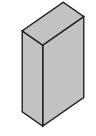
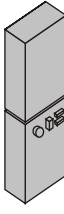
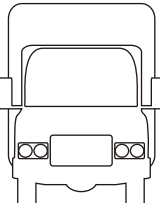
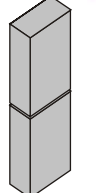
Features:

- High sensitivity
- Easy-to-use
- Advanced data processing algorithms
- Modular design
- Indoor and outdoor installations
- Audible and light alarms
- Video monitoring system (option)
- Can be Integrated into a nuclear protection network controlled by a central PC (option) with further integration into higher level networks controlled by an Expert Center (option)
- Transfers information via RS-232 (RS-485) to a PC or Remote Control PM502 (option)
- Reliable, automatic, 24/7 operation

Principles and advantages of modular design:

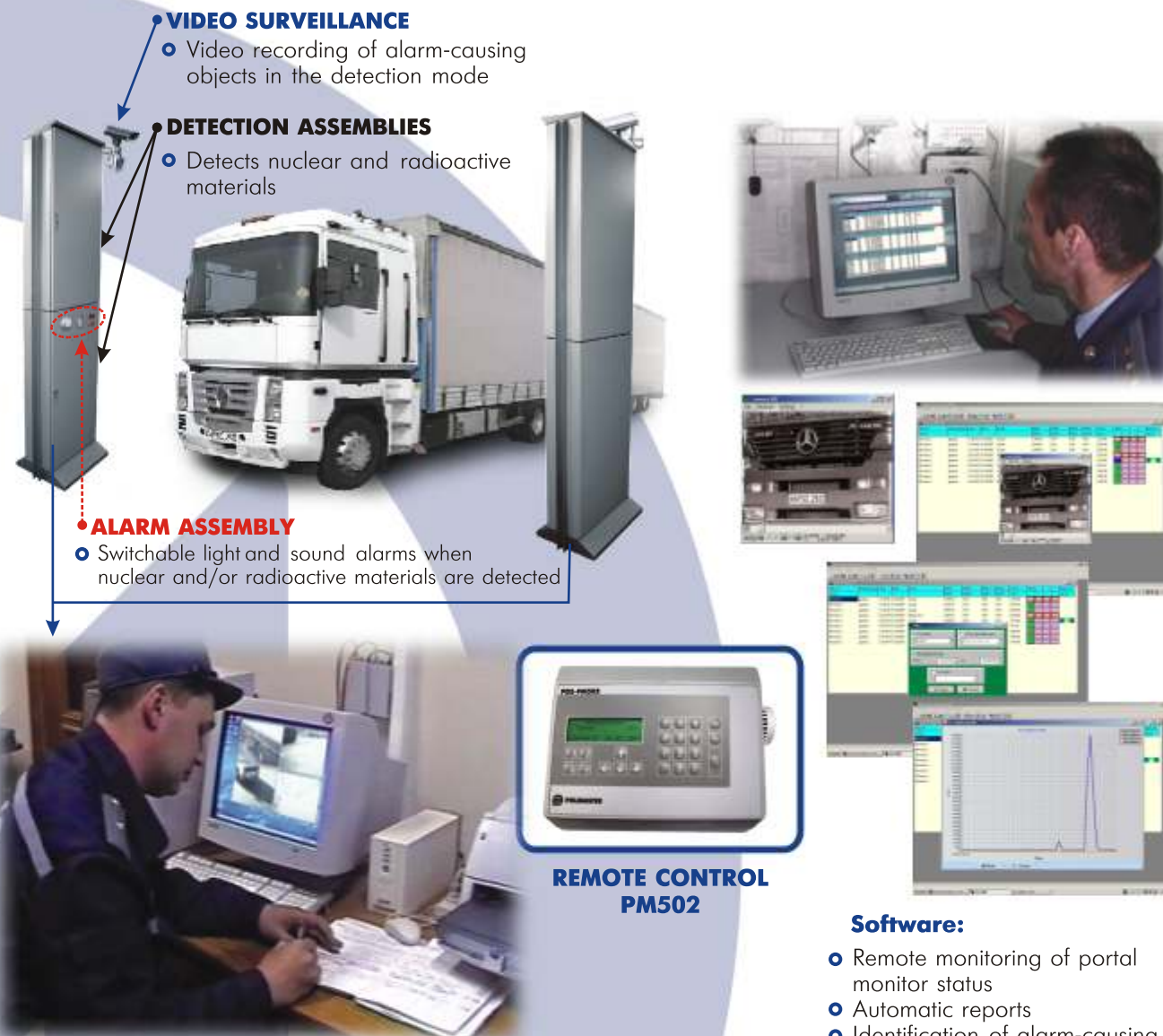
- Three types of detection assemblies
 - gamma radiation
 - neutron radiation
 - gamma/neutron radiation
- One-pillar and two-pillar configurations
- Adaptable height and width to accommodate any monitoring area
- Sensitivity is adjustable to meet customer requirements

Standard RPM models:

Model	Detection Assemblies, pcs.	Application
  PM5000A-04, 04H* 12 08, 08H*	Gamma -1 Neutron -1 Gamma/neutron -1	Pedestrian, mail, baggage
   05, 05H* 13 09, 09H*	Gamma -2 Neutron -2 Gamma/neutron -2	Pedestrian, baggage, cars
   01, 01H* 14 10, 10H*	Gamma -4 Neutron -4 Gamma/neutron -4	Trucks, train

* models with "H" contain large volume gamma detectors for higher sensitivity

FUNCTIONAL SYSTEM COMPONENTS:



Workstation with PC or Remote Control PM502:

- Parameters and operation modes can be remotely monitored
- Readings and data indications are stored in the RPM's non-volatile memory

