

# RADIATION PORTAL MONITORS PM5000A SERIES

False alarm rate:  
is set by the user

Power consumption:  
Than 75VA

### TECHNICAL SPECIFICATIONS

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

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

Model	Source velocity, km/h, not more	Search area* W x H, m	Minimum detectable amounts of nuclear and radioactive materials							<sup>252</sup> Cf, (Pu-Be) neutron/s
			<sup>241</sup> Am, MBq(μCi)	<sup>137</sup> Cs, MBq(μCi)	<sup>60</sup> Co, MBq(μCi)	<sup>238</sup> U, g	<sup>235</sup> U, g	<sup>239</sup> Pu, g	<sup>239</sup> Pu, g (4cm Pb)	
PM5000A-01	5	3.0 4	0.7 (18.2)	0.08 (2.2)	0.045 (1.2)	480	32	0.9		
	8	6.0 4	2.4 (64)	0.28 (7.4)	0.15 (4)	1700	105	3.1		
PM5000A-01H	8	6.0 4	1.8 (49)	0.21 (5.7)	0.12 (3.2)	1300	80	2.3		
	20	6.0 4	2.7 (71.5)	0.31 (8.4)	0.17 (4.6)	1900	120	3.4		
PM5000A-04	5	1.5 2	1.2 (33.6)	0.14 (3.8)	0.08 (2.2)	870	60	1.6		
PM5000A-04H	5	1.5 2	0.94 (25)	0.11 (3)	0.06 (1.6)	660	43	1.2		
PM5000A-05	5	3.0 2	0.85 (23)	0.1 (2.7)	0.055 (1.5)	610	40	1.1		
	8	6.0 2	3.2 (87)	0.38 (10.3)	0.21 (5.7)	2300	150	4.2		
PM5000A-05H	5	3.0 2	0.65 (16.8)	0.08 (2.2)	0.045 (1.2)	460	32	0.9		
	8	6.0 2	2.5 (69)	0.29 (7.8)	0.16 (4.3)	1800	110	3.2		
PM5000A-08	5	1.5 2	1.2 (33.6)	0.14 (3.8)	0.08 (2.2)	870	60	1.6	170	10000
PM5000A-08H	5	1.5 2	0.94 (25)	0.11 (3)	0.06 (1.6)	660	43	1.2	170	10000
PM5000A-09	5	3.0 2	0.85 (23)	0.1 (2.7)	0.055 (1.5)	610	40	1.1	115	7000
	8	6.0 2	3.2 (87)	0.38 (10.3)	0.21 (5.7)	2300	150	4.2	280	17000
PM5000A-09H	5	3.0 2	0.65 (16.8)	0.08 (2.2)	0.045 (1.2)	460	32	0.9	115	7000
	8	6.0 2	2.5 (69)	0.29 (7.8)	0.15 (4.0)	1800	110	3.2	280	17000
PM5000A-10	5	3.0 4	0.7 (18.2)	0.08 (2.2)	0.045 (1.2)	480	32	0.9	95	6000
	8	6.0 4	2.4 (64)	0.28 (7.6)	0.17 (4.6)	1700	105	3.1	230	12000
PM5000A-10H	8	6.0 4	1.8 (49)	0.21 (5.7)	0.16 (4.25)	1300	80	2.3	230	12000
	20	6.0 4	2.7 (71.5)	0.31 (8.4)	0.23 (6.26)	1900	120	3.4	390	21000
PM5000A-12	5	1.5 2							145	9000
PM5000A-13	5	3.0 2							100	6000
	8	6.0 3							255	15000
PM5000A-14	5	3.0 4							80	5000
	8	6.0 4							200	12000
	20	6.0 4							330	21000
PM5000A-15 (10H+14)	8	6.0 4	1.8 (49)	0.21 (5.7)	0.12 (3.2)	1300	80	2.3	140	8500
	20	6.0 4	2.7 (71.5)	0.31 (8.4)	0.17 (4.6)	1900	120	3.4	230	14000

\*for natural gamma and neutron radiation background level and than 1 false alarm per 10000 passages of controlled objects throughout monitoring area  
Design and specifications can be changed without notice



Innovative Radiation Detection Technologies Since 1992

# RADIATION PORTAL MONITORS PM5000A Series

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**



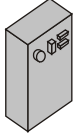

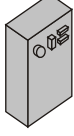
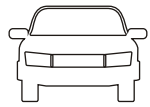
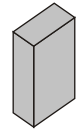
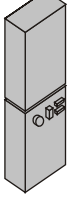
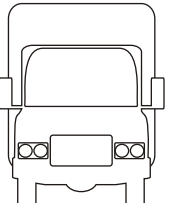
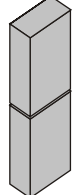
## Features:

- 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:

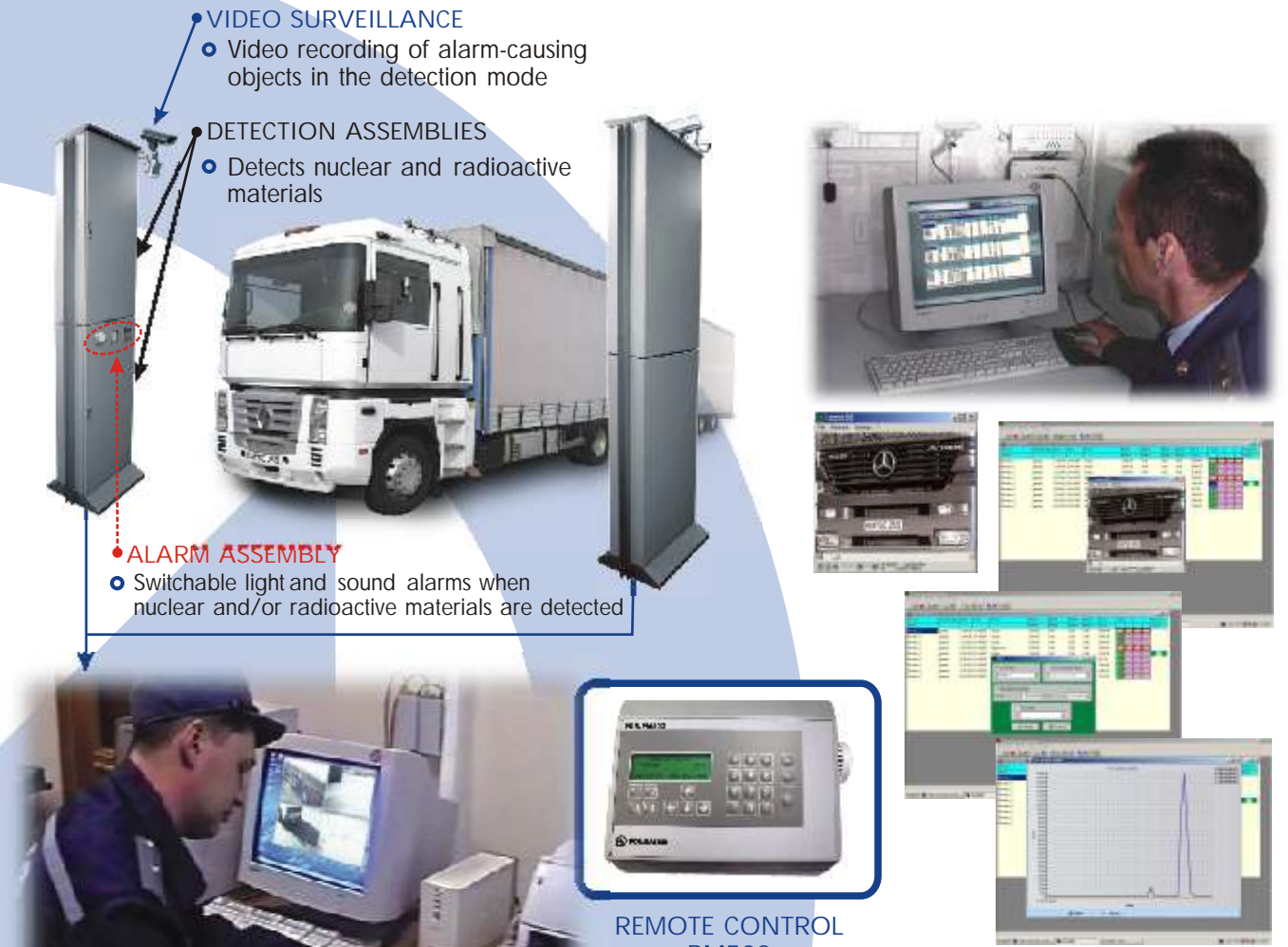
- Three types of detection assemblies
  - gamma radiation
  - neutron radiation
  - gamma/neutron radiation
- One-pillar and two-pillar configurations
- Adaptable height and width to accommodate any monitoring area
- Sensitivity is adjustable to meet customer requirements

## 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* 15 (10H+14)	Gamma-4 Neutron-4 Gamma/neutron-4 Gamma/neutron-8	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

### Software:

- Remote monitoring of portal monitor status
- Automatic reports
- Identification of alarm-causing objects
- Capable of transferring data to an Expert Center

