

PoliGate™ Light

RADIATION PORTAL MONITOR

PoliGate™ Light series of Radiation Portal Monitors (RPMs) is a high-sensitive fixed system designed for permanent installation and providing continuous radiation detection and monitoring of vehicles, cargo containers, people, or packages. RPMs have a modular design and are available in one-pillar or two-pillar configurations, adaptable height and width according to customer requirements.

PoliGate™ Light is a simplified series of Polimaster RPMs which is available in a more compact and lightweight design and is not equipped with a neutron detection unit. The RPM is easy to operate and maintain, requires minimal training and is supplied with user-friendly software that provides real-time data and alarms.

Applications




- Waste management sites
- Airports and seaports
- Public events security
- Nuclear power plants
- Police and security
- Industrial facilities
- Scrap processing

Features

- Control zone up to 6 m × 4.5 m (W×H)
- No vehicle stop is required for measurement
- Lead shielding for natural background rejection
- Wide gamma energy range from 20 keV to 3 MeV
- Local and remote light and audible alarm annunciators
- Back-up battery providing at least 8 hours of operation
- Presence detection system (infrared occupancy sensors)
- Adjustable sensitivity parameters for specific applications
- Optional video surveillance system

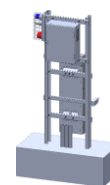


SPECIFICATIONS

Model	Speed, km/h	Control zone W x H, m	Layout of detection units	Minimal detectable amounts of nuclear and radioactive materials*							
				²⁴¹ Am, kBq, (μCi)	¹³⁷ Cs, kBq, (μCi)	⁶⁰ Co, kBq, (μCi)	⁵⁷ Co, kBq, (μCi)	¹³³ Ba, kBq, (μCi)	²³⁸ U, g	²³⁵ U, g	²³⁹ Pu, g
PoliGate™ Light G1	5	1.5 × 2		1380 (37)	230 (6.2)	120 (3.1)	220 (5.9)	130 (3.4)	1400	83	2.9
PoliGate™ Light G2	5	3 × 2		820 (22.4)	140 (3.7)	70 (1.9)	130 (3.6)	75 (2.0)	810	48	1.7
	8	6 × 2		3000 (81)	430 (11.5)	220 (5.9)	460 (12.4)	240 (6.5)	2530	173	5.4
PoliGate™ Light G4	8	6 × 4.5		2400 (64)	330 (8.8)	170 (4.5)	360 (9.7)	180 (5.0)	1960	136	4.1
	20	6 × 4.5		3800 (102)	520 (14)	270 (7.5)	570 (16)	290 (7.9)	3100	215	6.5

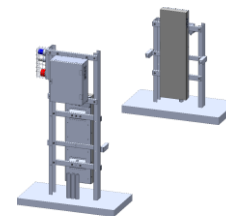
*If gamma radiation background is < 0.1 μSv/h, false alarm rate is < 1/1000 passages

Gamma detectors	Organic plastic scintillator Detector volume is 8.8 l
Energy range	20 keV to 3 MeV
False alarm rate	< 1/1000 passages
Communication	Ethernet
Ingress protection	IP55
Weight (detection block)	66 kg
Dimension (detection block)	1074×324×127 mm (H×L×W)
Power supply	115-230 V AC, 47-63 Hz; 12 V built-in rechargeable battery (> 8 h of operation)
Standards compliance	IEC 62244:2019, ANSI N42.35-2016, IEC 61000-6-2:2016, IEC 61000-6-3:2011, IEC 61326-1:2012, EN 55022:2010 (class B), IEC 61010-1:2010, IEC 62244:2019 (partially)
Operating conditions	ambient temperature: -30 °C to 50 °C atmospheric pressure: 88 kPa to 106.7 kPa relative humidity: up to 98 % at 40 °C



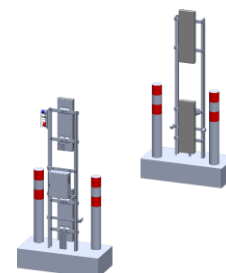
PoliGate™ Light G1

Single-sided model with 1 gamma detection block



PoliGate™ Light G2

Double-sided model with 2 gamma detection blocks



PoliGate™ Light G4

Double-sided model with 4 gamma detection blocks

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