

## survey meter

### Pollmaster PM1405



دستگاه دزیمتر محیطی **Polimaster PM1405** ساخت اروپا جهت اندازه گیری و پایش پرتو های ایکس ، گاما ، آلفا و بتا میباشد. کاربرد در زمینه های صنعتی مانند : پرتونگاری صنعتی (RT) ، در پالایشگاه ها ، خطوط لوله ، کارخانجات و دیگر صنایع مرتبط به NDT کاربرد در زمینه های پزشکی مانند : پزشکی هسته ای ، رادیوتراپی و دیگر مراکز کار با پرتو کاربرد در دیگر صنایع و مراکز مانند : مراکز تکنولوژی هسته ای ، مراکز تحقیقاتی ، گمرکات و آتش نشانی و ...

#### مشخصات :

<b>Detector</b>	GM-counter	<b>Energy response</b>	± 30 %
<b>Dose Rate display</b>	(γ-channel) 0.01 μSv/h - 130 mSv/h (10 μR/h - 10 R/h) (indication range of α- flux and β-flux density) 0.1 - 10 <sup>4</sup> min <sup>-1</sup> cm <sup>-2</sup> (α measurement is special configuration, supplied by individual order)	<b>relative to 0.662 MeV</b> <b>(<sup>137</sup>Cs)</b> <b>Survive after</b> <b>momentary influence</b> <b>of maximum</b> <b>permissible gamma</b> <b>radiation within 5</b> <b>min:</b> <b>Standards</b> <b>compliance</b> <b>Alarm type:</b>	
<b>Dose Rate Accuracy</b>	± (20 + K/H) % where H – dose rate, μSv/h K - coefficient 1.0 μSv/h	<b>Physical Parameters</b>	
<b>Dose measurement</b>	Indication range 0.01 μSv - 10.0 Sv (special configuration, supplied by individual order)	<b>Dimensions</b>	148 x 85 x 40 mm
<b>Dose Accuracy</b>	± 20 % (special configuration, supplied by individual order)	<b>Weight</b>	290 g (10.2 oz)
<b>Energy range</b>	(γ-channel) 0.05 - 3.0 MeV (β measuring) 0.1 - 3.5 MeV	<b>Environmental</b> <b>Characteristics</b> <b>Temperature</b>	-10°C to 50°C (14°F to 122°F)
		<b>Humidity</b>	up to 95 % at 35 °C (95 °F)
		<b>Environmental</b> <b>protection</b>	IP30
		<b>Drop test</b>	0.7 m (2.3 ft) on concrete floor
		<b>Water resistant</b>	
		<b>Power</b>	
		<b>Batteries</b>	two AA batteries
		<b>Battery lifetime</b>	6 months
		<b>(average DER not</b>	

**more than 0.3  $\mu$ Sv/h, alarms activated for not more than 20 s/24 hours)**

**Battery discharge control**

**Additional**

**Countdown timer**

\*using LCD backlight, audible and visual alarm not more than 5 m/day

**Display of time to critical exposure**

**Functions**

**Calendar mode**

**PC Communication**      USB

The PM1405 **survey meter** incorporates a large energy compensated GM tube for precise measurement of the ambient equivalent dose rate of the X-ray and gamma radiation in the range from background level to 100 mSv/h (10 R/h). By opening the special screen-filter and choosing beta radiation flux density measurement mode, the instrument allows to estimating the intensity of the contamination of surfaces of various environmental objects from beta radiation sources.

Being compact in size and light weighted the *survey meters* may be used for search, detection and localization of gamma and beta radiation sources. The search process is accompanied by sound and light signals with the intensity of the signal proportional to the radiation rate.

A modification with option of measurement of the ambient dose equivalent (DE) of gamma and X-ray radiation and measurement of the  $\alpha$ -particles flux density (surface contamination level measuring) is available by individual order.

**Product features:**

- Simultaneous and selective measurement of the gamma and beta radiation intensity;
- Audible and visual alarms at the levels, exceeding user preset threshold values and in the radiation source search mode;
- Non-volatile memory;
- PC communication via USB interface and the ability for networking instrument with automatic data collection into a server based centralized database;
- Indication of the battery discharge level;
- Simple and intuitive user interface.

The unique PM1405 user software allows to connect and network in information system up to three hundred instruments, as well as to carry out direct (software local mode) or remote (software remote mode) control, monitoring and information collection from all connected PM1405. The user software performs continuous radiation control with transfer of the information from the instrument to a client PC (local mode) and server PC (remote mode).

**The PM1405 user software enables:**

- Higher work efficiency of radiation control services personnel, first responders, employees of security service and customs, as well as personnel whose work includes solving problems of local gamma and beta radiation sources detection or single objects contaminated by gamma and/or beta radiation sources (for example, to determine radioactive contamination of banknotes, scrap, etc.).
- Transfer of information about radiation situation on the controlled area or object in online mode;
- Creation of automatic reports about control efficiency during the detection of radioactive contamination by beta and gamma sources;
- Early warning about probability of radiation contamination.