Polimaster PM1300 is a compact direct-reading electronic personal dosimeter designed for real-time control of radiation situation and measurement of personnel exposure. The instrument may be used both for autonomous work and as a part of automatic personnel exposure monitoring system.

**FEATURES**

- Complies with and exceeds requirements of IEC61526 and ANSI 42.20 standards
- Extended energy range and improved energy response
- Electronic reference of the instrument to a TLD badge
- Automatic calculation of the time left until the dose equivalent alarm threshold will be triggered

**APPLICATION**

- Nuclear power
- Medicine
- Non-destructive testing
- Oil and gas industry

**FUNCTIONS**

- Measurement of dose equivalent and dose equivalent rate of continuous and pulsed photon radiation
- Visual, audible and vibration alarms when one of the thresholds is exceeded
- Recording up to 10 000 events in the history
- USB data transfer
- Wireless radio frequency data transfer
- Creation of personnel exposure database

[www.polimaster.com](http://www.polimaster.com)
**ELECTRONIC PERSONAL DOSIMETER PM1300**
Complies with and exceeds the requirements of IEC 61526, ANSI 42.20

**DOSIMETER SPECIFICATIONS**
- **Detector:** Energy compensated silicon PIN diode
- **Dose equivalent measurement range:** 1 µSv - 20 Sv
- **Dose equivalent rate measurement range:** 1 µSv/h - 10 Sv/h
- **Average dose equivalent rate of pulsed photon radiation measurement range:** 10 mSv/h - 10 Sv/h
- **Energy range:** 15 keV - 20 MeV
- **Accuracy:**
  - dose measurement: ±15 %
  - dose rate measurement: ±15 %
- **Energy response relative to 0.662 MeV:**
  - in the range from 15 keV to 7 MeV: ±15%
  - in the range from 7 MeV to 20 MeV: ±40%
- **Thresholds:** 2 independent thresholds for both dose equivalent and dose equivalent rate
- **Operating conditions:**
  - temperature: from -20 to +50 °C
  - humidity: up to 95 % at +40 °C
  - atmospheric pressure: from 84 to 106.7 kPa
- **Ingress protection:** IP67
- **Dimensions:** 85 x 56 x 20 mm
- **Weight** (including battery): ≤ 84 g
- **Power supply:** AAA alkaline or rechargeable battery

**SYSTEM INTEGRATION**
**USB interface allows:**
- Wired data transmission and adjusting parameters of the instrument
- Registration of personnel in exposure monitoring system and issuing personal radiological work permits
- Battery recharging

**Automated storage rack allows:**
- Storing and controlling the access to the set of personal dosimeters by means of authorization in facial recognition system or entering access code
- Remote data transmission and adjusting parameters of the instruments
- Automated registering in exposure monitoring system and issuing personal radiological work permits
- Battery recharging

**RF interface allows:**
- Wireless data transmission and adjusting parameters of the instrument
- Automated registration of the personnel in exposure monitoring system and issuing personal radiological work permits
- Simultaneous transmission of measurement results to the personnel exposure monitoring system from several dosimeters. Transferred data may be linked to a certain controlled area.
- Remote control of the access, movement, location and duty hours of personnel in the restricted areas under issued radiological work permits
- Integration to automatic access control systems

**RF READER SPECIFICATIONS**
- **Operational frequency:** 2.4 GHz
- **Readout distance:** up to 10 m
- **Output power:** 1 mW
- **PC communication:** USB, Ethernet, RS-485
- **Memory capacity:** up to 50 000 events
- **Power supply:** mains current or USB (backup rechargeable battery)
- **Dimensions/weight:** 100 x 100 x 50 mm/≤ 0,4 kg
- **Operating conditions:**
  - temperature: from -10 to +50 °C
  - humidity up to 98% at +40 °C
  - atmospheric pressure from 84 to 106.7 kPa

**Complies** with and **exceeds** the **requirements** of IEC 61526, ANSI 42.20

**USB interface allows:**
- Wired data transmission and adjusting parameters of the instrument
- Registration of personnel in exposure monitoring system and issuing personal radiological work permits
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**Automated storage rack allows:**
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