

# AT6130, AT6130A, AT6130B AT6130D, AT6130C

Hand-held small-sized instruments to measure ambient x-ray and gamma radiation dose equivalent and dose equivalent rate and beta radiation flux density from contaminated surfaces

## Features

- Small weight and dimensions
- Interactive operation mode
- Audible and visual alarm at dose, dose rate or flux density threshold exceeding
- Rapid response to dose rate change (a new measuring starts)
- Selective beta and gamma radiation measuring in mixed fields
- Wide temperature operation under natural environment
- Beeping at every gamma quantum (beta particle) detection while ionizing radiation sources are searched
- Keeping up to 2000 measurement results with the measurement date and time in the nonvolatile memory
- Measurement result, current date and time and low battery symbol on a matrix LCD
- Data transfer to PC via IrDA interface

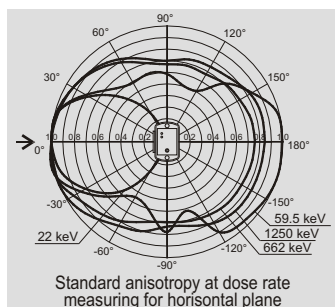
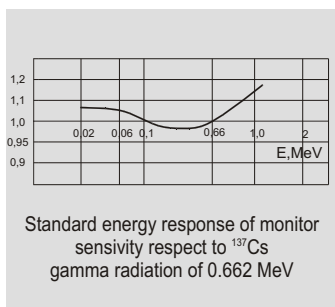
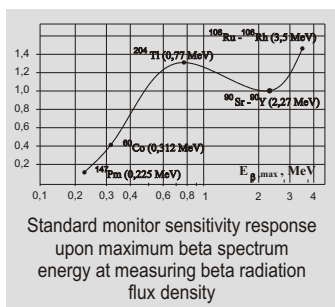
# RADIATION MONITORS

**0.1  $\mu$ Sv/h - 10 mSv/h**  
**10 - 10<sup>4</sup> particle/(cm<sup>2</sup> · min)**  
**x & y: 20 keV - 3 MeV;  $\beta$ : 155 keV - 3.5 MeV**



## Application

- Radioecology
- Emergency
- Civil defense
- Fire brigades
- Emergency
- Customs
- Dosimetry monitoring at industrial enterprises, medical institutions and other authorities
- Banknote contamination monitoring



The radiation monitors are microprocessor instruments with digital readout. The G-M tube with the energy compensating filter is used as a detector.



# ATOMTEX

INSTRUMENTS AND TECHNOLOGIES FOR  
NUCLEAR MEASUREMENTS AND RADIATION MONITORING

Instrument	AT6130	AT6130A	AT6130B AT6130D	AT6130C
Beta radiation flux density	+	-	-	-
X-ray	+	-	-	-
Gamma radiation	+	+	+	+
IR channel for data exchange with PC	+	-	+	-

## **Specification**

### **Ambient x-ray and gamma radiation dose equivalent rate measuring range**

AT6130, AT6130A, AT6130B ..... 0.1  $\mu$ Sv/h - 10 mSv/h  
 AT6130D ..... 0.1  $\mu$ Sv/h - 100 mSv/h  
 AT6130C ..... 0.1  $\mu$ Sv/h - 1 mSv/h

### **Ambient x-ray and gamma radiation dose equivalent measuring range**

AT6130, AT6130A, AT6130B ..... 0.1  $\mu$ Sv - 100 mSv  
 AT6130D ..... 0.1  $\mu$ Sv - 1 Sv  
 AT6130C ..... 0.1  $\mu$ Sv - 100 mSv

### **Beta radiation flux density measuring range**

AT6130 ..... 10 - 10<sup>4</sup> particle/(min·cm<sup>2</sup>)

### **X-ray and gamma radiation energy range**

AT6130 ..... 20 keV - 3 MeV  
 AT6130A, AT6130B,  
 AT6130C, AT6130D ..... 50 keV - 3 MeV

### **Maximum detecting spectrum beta radiation**

energy range - AT6130 ..... 155 keV - 3.5 MeV

**Intrinsic measurement error** .....  $\pm 20\%$

### **Measurement time of natural background (0.1 $\mu$ Sv/h)**

at statistical error of  $\pm 20\%$  ..... less than 300 s

### **Energy sensitivity response**

at gamma radiation dose rate measuring

respect to <sup>137</sup>Cs .....  $\pm 30\%$

at beta radiation flux density measuring

respect to <sup>90</sup>Sr + <sup>90</sup>Y ..... (-60  $\div$  +50)%

### **Operating temperature range**

AT6130, AT6130B,  
 AT6130C, AT6130D ..... -20  $\div$  +55°C  
 AT6130A ..... -40  $\div$  +55°C

**Relative humidity at 35°C** ..... 95%

### **Protection class**

AT6130, AT6130B, AT6130C, AT6130D ..... IP57  
 AT6130C ..... IP40

**Power requirements:** two batteries, type AAA (LR 03) or two accumulators, type AAA, with rated voltage of 1.2 V

### **Continuous operation time with one battery set**

at dose rate < 1.0  $\mu$ Sv/h  
 AT6130, AT6130B,  
 AT6130C, AT6130D ..... not less than 500 h  
 AT6130C ..... not less than 700 h

### **Radio disturbance characteristics**

EN 55022:1998

### **Electromagnetic compatibility**

IEC 61000-4-2:2001  
 IEC 61000-4-3:1995

### **Weight**

AT6130, AT6130A,  
 AT6130B, AT6130D ..... 0.25 kg  
 AT6130C ..... 0.2 kg

### **Dimensions**

AT6130, AT6130A,  
 AT6130B, AT6130D ..... 110x60x38 mm  
 AT6130C ..... 111x70x28 mm

**Complete set:** radiation monitor, batteries, holster, Manual, package.

IR reader and applied software, charger with accumulators, head-phones and extension handle are options and they are supplied **on additional order.**

All modifications of the radiation monitor AT6130 have pattern approval certificates of Republic of Belarus and Kazakhstan and modifications AT6130, AT6130A, AT6130B have pattern approval certificates of Russian Federation, Ukraine and Lithuania.

They comply with IEC 60846 and IEC 60325 International standard requirements. They also conform with the 89/336/EEC directive complying with EN 61000-4-3 and EN 61000-4-2 standard requirements.

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