



EU Notified Body
No. 2549

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(1) **EU-TYPE EXAMINATION CERTIFICATE**

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **ICQC 19 ATEX 0429** Issue: **0**

(4) Equipment: **Detection unit type BD-7**

(5) Manufacturer: **Environmentally Physical Technologies Ltd (EPT Ltd)**

(6) Address: **56 Varshavskoe Hw, Bldg 2, Off 4, 117638 Moscow, Russian Federation**

(7) This equipment and any acceptable variation, also documents which are specified in the schedule to this certificate.

(8) The certification body ICQC, Notified body No. 2549 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in confidential report No **429/2019/08/ATEX**

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN 60079-0:2012/A11:2013, EN 60079-1:2014**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and the construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture and supply of this equipment. These are not covered by the certificate

(12) The marking of the equipment or protective system shall include the following:



II 2G Ex db IIC T6 Gb or IM2 Ex db IMb
-40°C ≤ Ta ≤ +70°C

Director of Certification:



Sergey Kovalev

Date of issue: 04 December, 2019
Jurmala, Latvia

(13) **SCHEDULE**

(14) **to EU-TYPE EXAMINATION CERTIFICATE: ICQC 19 ATEX 0429**

(15) **Description of Equipment:**

The detection unit BD-7(hereinafter referred to as the detection unit) is designed to convert a gamma radiation flux density arriving at its detector into a proportional average pulse repetition rate.

The detection unit is a cylindrical steel flameproof casing, which consists of two compartments (detector compartment and terminal compartment) separated by the terminal block. The photomultiplier, the detector, and electronic circuit boards are located in the detector compartment. For connecting of external electrical circuits used a terminal block with screw terminals installed in the terminal compartment. For the entering of the cable into the terminal compartment shall be used the certified threaded certified cable gland with marking 2 IIG Ex db IIC Gb or I M2 Ex db I Mb and rated IP65 (or higher). The specific condition of using shall be observed for the used cable glands.

The detection unit is provided with internal and external grounding clamps with a relief grounding sign affixed near them. There is the warning label "WARNING -DISCONNECT POWER BEFORE OPEN" on the cover of terminal compartment.

The detecting unit has two variations (BD-7-7X and BD-7-9X), which differ in the types of detectors and enclosure length.

The sign "X" in the name of the units BD-7-7X and BD-7-9X is the configuration of the internal electronics of the product, depending on the task being solved.

There are following features available in the detection unit:

Parameters	Value
Supply voltage	15...28 V DC
Current Consumption	Maximum: 100 mA
Ambient temperature	-40°C to +70°C
Protection level	IP 65

Routine tests:

Routine tests according to cl. 16 of EN 60079-1 shall be conducted for Exd detector compartment with a test pressure of 3,8 MPa.

(16) **Descriptive Documents:**

KZRS.329000.007-07 Detection unit BD-7 Operating manual
The drawings are listed in evaluation report No 429/2019/08/ATEX

(17) **Specific conditions of use:**

None.

(18) **Essential Health and Safety Requirements:**

Met by compliance with the standards mentioned in clause (9).