EN

"MINPROEKT" EAD

CERTIFICATE

[1] **Module B: EU-TYPE-EXAMINATION CERTIFICATE**
(Translation)

[2] Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – Directive 2014/34/EU (ATEX)

[3] **Module B: EU-type-examination Certificate Number: №: MP 20 ATEX 0246 X**

[4] **Product (Equipment or protective system): Fixed gas detector – Gascontrol-0x**

[5] Applicant: **ENERGOPRIBOR LLC - RUSSIA**

[6] Address: Office 1007, Entrance E, Building 9, Chkalova Street, Perm, Perm Region 614000 Russia

[5] Manufacturer: **ENERGOPRIBOR LLC - RUSSIA**

[6] Address: Office 1007, Entrance E, Building 9, Chkalova Street, Perm, Perm Region 614000 Russia

[7] This product (equipment or protective system) and any acceptable variation thereto are specified in details in the schedule to this certificate as well as the documents therein referred to.

[8] Minproekt EAD, notified body No.1877 in accordance with Article 17 of the Council Directive 2014/34/EU (ATEX) of 26th February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective system, intended for use in potentially explosive atmospheres, specified in Annex II of the Directive.The examination and test results are recorded in:

Confidential **Test report № 07/06.04.2020**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN 60079-0:2018; EN 60079-1:2014; EN 60079-11:2012.**

[10] If the sign "X" is placed after the certificate number, it indicates that this equipment or protective system is subject to special conditions for save use, specified in the schedule to this certificate.

[11] This EU-type-examination Certificate on Module B relates only to the design and the construction of this specified equipment or protective system in accordance with Directive 2014/34/EU.
This certificate does not cover the requirements of the Directive on the forthcoming procedures relating to the production process and the delivery of the product.

[12] The marking of the equipment or protective system shall include the following:

II 2G Ex db [ia Ga] IIC T6 Gb

$-40^0C \leq T_a \leq +65^0C$*

$-60^0C \leq T_a \leq +65^0C$*

* depending on the sealant used

This certificate does not authorize the manufacturer or his authorized representative to affix the CE mark followed by the identification number of the Notified Body as well as the marketing and / or use. This certificate is valid to 14.04.2025 if there is no change in the conditions under which it has been issued.

Sofia, 14.04.2020

Executive Director:
/dipl. eng. R. Bikov/

ЕАД "МИНПРОЕКТ" * СОФИЯ *

"Minproekt" EAD, Sofia 1756, Bulgaria, 14 "Kliment Ohridski" avenue
tel.:02/975-82-20,fax:02/975-33-48
e-mail: office@minproekt.com
www.minproekt.com

Division "Scientific and Research Activity"
tel.: 07718/2340
e-mail: minproektvs@abv.bg

[13] Schedule

[14] Certificate on "Module B: EU-type examination certificate №: MP 20 ATEX 0246 X (Translation)

[15] Characteristics of the type, subject to the examination

1. **Technical description**

"Fixed gas detector – Gascontrol-0x" is a metal housing with a lid. The exposed sides of the housing have openings for cable entries or an light-acoustic alarm. The housings are made of aluminum alloy or stainless steel.

2. **Technical data of the product.**

2.1. Type designation – GK – X1, X2, X3, X4, X5, X6, X7, X8, X9, X10, X11 where:

X1 – gas detector implementation: **01** – Gascontrol – 01; **02** – Gascontrol – 02; **03** – Gascontrol – 03; **04** – Gascontrol – 04.

X2 – sensor type: **01** – infrared (IR); **02** – thermocatalytic (CT); **03** – ele trochemical (EC); **04** – photoionization (FD); **05** - infrared on freons (FR).

X3 – output signals: **1** – 4-20mA, RS – 485 (Modbus); **2** – radio channel.

X4 – HART protocol with current loop: **0** – absent; **2** – available.

X5 – HART connector : **0** – absent; **2** – available.

X6 – discrete alarm outputs: **0** – absent; **3** – "dry contact" relay – 3 pcs; **4** – "dry contact" relay – 3 pcs, light and acoustic alarm.

X7 – power supply: **1** – stationary, with cable; **2** – battery.

X8 – housing and output material: **11** – aluminum, M20; **13** – aluminum, M25; **21** – stainless steel, M20; **23** – stainless steel, M25.

X9 – gas number according to the Operation Manual.

X10 – an upper limit of the read range according to the Operating Manual.

X11 – temperature range: **1** – **$-40^0C \leq T_a \leq +65^0C$; 2 – $-60^0C \leq T_a \leq +65^0C$.**

2.2. Electrotechnical characteristics:

- power supply voltage: 18-32VDC;
- the required power of the gas detector, depending on the operating mode: turning on - no more than 3W; warming up - no more than 1,3W; measurement mode – from 0,9 to 1,2W; measurement mode, at active alarm (threshold exceeding) – no more than 2,2W; sensor warm-up - optional 3W; light and acoustic alarm – optional 2,3W;
- maximum time for the gas detector warming-up: Gascontrol – 0xIR – no more than 2 min.; Gascontrol – 0xCT, Gascontrol – 0xEC, Gascontrol 0xFD, Gascontrol – 0xFR – no more than 5 min;
- the length of the cable line from the gas detector to the controller depends on the supply voltage and the cable selected;
- load resistance of the current loop circuits not exceeding 500Ω;
- maximum relay switching current – 2A, 250VAC (or 250VDC).
- Output parameters of the circuits to the sensor: Uo=7,37V; Io=420mA; Po=77mW; Co=11,9μF; Lo=0,19mH.

3. **Application field**

"Fixed gas detector – Gascontrol-0x" are designed to measure and transmit information on the concentration of combustible gases, vapors of burning liquids (including vapors of petroleum products), toxic gases, freons volatile organic compounds and oxygen in the air in work areas, process gas environments, industrial spaces and open spaces in industrial sites, pipelines and ducts, and gives warning signals for exceeding established thresholds.

[16] Test report № 07/06.04.2020

[17] Special requirements for safety use – "Fixed gas detectors – Gascontrol-0x" are intended for a working temperature range $-40^0C \leq T_a \leq +65^0C$, $-60^0C \leq T_a \leq +65^0C$, different from the standard one.

Sofia, 2020-04-14

Executive Director:
/dipl. eng. R. Bikov/

"Minproekt" EAD, Sofia 1756, Bulgaria
14 "Kliment Ohridski" avenue
tel.: 02/975-82-20, fax: 02/ 975-33-48
e-mail: office@minproekt.com – Sofia
www.minproekt.com

Division "Scientific and Research Activity"
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Certificate on "Module B: EU-type examination certificate №: MP 20 ATEX 0246 X (Translation)

[18] Essential requirements

18.1. According to Directive 2014/34/EU (ATEX) and the manufacturer's instructions the product is not allowed to operate in Zone 0.

18.2. Other essential safety requirements are covered by the standards pointed in [9].

[19] List of the technical record parts

19.1. Operation manual of – "Fixed gas detectors – Gascontrol-0x"

19.2. Certificates presented: FTZU 03 ATEX 0207 U; SIRA 02 ATEX M154

19.3. List of harmonized standards: (Operaton manual)

19.4. Conceptual design and manufacturing drawings and schemes, consisting of:

Light and acoustic alarm:

Drawing № ЭПГК.413216.020-02 СБ, Specification ЭПГК.413216.020-02 – 2 sheets, electrical circuit with barrier.

Gas detectors:

The drawings are in the Operation Manual – т. 4.1 and т. 9, general wiring diagram, Specifications ЭПГК.421519.001-11 – 4 sheets, ЭПГК.421519.003-12 – 3 sheets, ЭПГК.468521.020- 07 – 2 sheets, ЭПГК.468521.023-04, a set of wiring diagrams of the individual boards, Drawing № ЭПГК.421519.008-xx ЭЗ, Specification ЭПГК. 421519.008-xx.

19.5. Additional information:

19.5.1. Product risk analysis and assessment

19.5.2. Instructions for use on empty explosion-proof enclosure - components

19.5.3. Technical data for resistors used

19.5.4. Technical data on the pouring materials used

Sofia, 2020-04-14

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