

## EU declaration of conformity

### **VARIOTEC<sup>®</sup> 480 EX / VARIOTEC<sup>®</sup> 450 EX**

Portable battery-powered gas measuring device

Hermann Sewerin GmbH  
Robert-Bosch-Str. 3  
33334 Gütersloh – Germany

The product is in conformity with the relevant Union harmonisation legislation:

**2014/30/EU**

**2014/34/EU**

For evaluation of conformity the following harmonised standards apply:

|               |                   |
|---------------|-------------------|
| EN 1127-1     | EN 60079-7        |
| EN 50270:2015 | EN 60079-11       |
| EN 60079-0    | EN 61000-6-2:2005 |
| EN 60079-1    | EN 61000-6-4:2011 |

For methane, propane, oxygen and carbon monoxide the following also apply for the Warning %LEL and Warning ExTox applications:

|            |               |
|------------|---------------|
| EN 45544-1 | EN 50104      |
| EN 45544-2 | EN 60079-29-1 |
| EN 50271   |               |

The following certificates have been issued:

|                |                              |                                       |
|----------------|------------------------------|---------------------------------------|
| Notified body: | TÜV NORD CERT GmbH<br>(0044) | DEKRA EXAM GmbH<br>(0158)             |
| Certificate:   | TÜV 07 ATEX 553353 X         | BVS 09 ATEX G 001 X<br>PFG 08 G 002 X |

One or more of the standards listed in the certificates have since been superseded by updated versions. The manufacturer declares that the product also complies with the requirements of the new versions of the standards.

This declaration of conformity is issued under the sole responsibility of Hermann Sewerin GmbH.

Signed for and on behalf of:  
Gütersloh, 2016-04-20



Dr. S. Sewerin (General Manager)



## EU declaration of conformity

### ***SNOOPER mini***

Handheld battery-powered gas measuring device

Hermann Sewerin GmbH  
Robert-Bosch-Str. 3  
33334 Gütersloh – Germany

The product is in conformity with the relevant Union harmonisation legislation:

2014/30/EU

For evaluation of conformity the following harmonised standards apply:

EN 61000-6-1:2007

EN 61000-6-2:2005

EN 61000-6-3:2007/A1:2011/AC:2012

EN 61000-6-4:2007/A1:2011

This declaration of conformity is issued under the sole responsibility of Hermann Sewerin GmbH.

Signed for and on behalf of:  
Gütersloh, 2016-04-20



Dr. S. Sewerin (General Manager)



Management Service

# CERTIFICATE

The Certification Body  
of TÜV SÜD Management Service GmbH  
certifies that



**AFRISO-EURO-INDEX GmbH**

Lindenstr. 20 • 74363 Güglingen  
Germany

Friedhofstr. 3 • 63916 Amorbach  
Germany

has established and applies  
a Quality Management System for

**Development, production and distribution of  
measuring-, control- and monitoring devices for  
domestic appliances, industry and environmental protection.**

An audit was performed, Order No. **70010777**.

Proof has been furnished that the requirements  
according to

**ISO 9001:2015**

are fulfilled.

The certificate is valid from **2022-08-03** until **2025-08-02**.

Certificate Registration No.: **12 100 14587 TMS**.

*Paul J. ...*

Head of Certification Body  
Munich, 2022-07-27





Product Service

# EG-Bescheinigung

Nr. EX9 13 07 15639 013

**Zertifikatsinhaber:** AFRISO-EURO-INDEX GmbH  
Lindenstr. 20  
74363 Güglingen  
DEUTSCHLAND

**Objektbezeichnung:** Nichtelektrische Geräte und Komponenten der  
Gerätegruppe II  
Manometer

**Modell(e):**  **Manometer der Typreihen :**  
RF\* EX, KP\* EX und PF\* EX

\* = verschiedene Durchmesser / Baugrößen

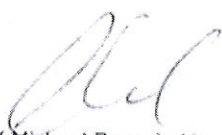
**Objekt-  
beschreibung:** 1 DIN A4 Ordner mit technischen Unterlagen

Diese EG-Bescheinigung bestätigt den Empfang und die Aufbewahrung der Unterlagen für das bezeichnete Produkt gemäß Artikel 8(1) b) ii) der Richtlinie des EU-Rates Nr. 94/9/EG für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen (ATEX). Grundlage dieser Bescheinigung sind die TÜV SÜD Product Service GmbH überlassenen Unterlagen, die weder auf Richtigkeit noch auf Vollständigkeit überprüft wurden. Umseitige Hinweise sind zu beachten.

**Bericht Nr.:** 713026496  
**Gültig bis:** 2023-07-31



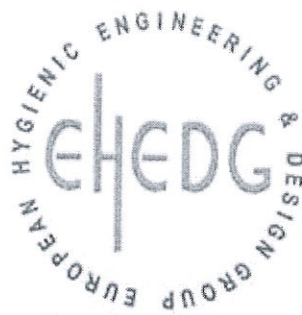
**Datum,** 2013-07-02

  
( Michael Reuschel )

TÜV SÜD Product Service GmbH ist benannte Stelle gemäß der Richtlinie des Rates Nr. 94/9/EG für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen mit der Kennnummer 0123.

Seite 1 von 1

# CERTIFICATE OF COMPLIANCE



**TYPE EL - CLASS I**

*TUM Certification  
hereby declares that the product*

*diaphragm seal, type MD52-1, MD52-2, MD52-3, MD56 and MD63*

*from*

*AFRISO-EURO-INDEX GmbH, 74363 Göggingen, Germany*

*has been evaluated for compliance with the  
Hygienic Equipment Design Criteria of the EHEDG, by:*

*TUM (Forschungszentrum für Brau- u. Lebensmittelqualität) at Weihenstephan, Germany  
and meets the criteria as demonstrated by:*

*Evaluation Report No. 329/7.11.2011*

*Signed*

*Jürgen Hofmann*  
Evaluation Officer

*Date 28. November 2011*

*Signed*

*Fritz Jend*  
Head of Department

*Date 28. November 2011*

*Certificate No. 31/2011*



TECHNISCHE  
UNIVERSITÄT  
MÜNCHEN

FORSCHUNGSZENTRUM  
WEIHENSTEPHAN  
für Brau- und  
Lebensmittelqualität

*85354 Freising-Weihenstephan, Germany  
©EHEDG*



## PRESSURE MEASURING INSTRUMENT

# S2600

- + Four (differential) pressure measuring ranges
- + Measured values displayed in 8 units: mbar, Pa, hPa, kPa, mmHg, inHg, psi, bar
- + Hold function for short-term freezing of measured value
- + Fully automatic device check, manual and automatic zero calibration during program start
- + Hose connection via 8 mm plug in connection or 3 mm Festo clamp connection

Also as  
**CAPBS®**

2

**Application** For measuring pressure, vacuum and differential pressure. For non-corrosive gaseous, dry media. Ideal for industrial, medical and air conditioning technology applications. Other typical application areas: Measurement of chimney draft, measurement of inlet pressure, flow pressure and nozzle pressure, pressure loss in flowing gases, filter inspection, ventilation systems or ducts, production and extraction facilities, vacuum measurement (laboratory), check of the connection pressure (natural gas supply pipes), burner pressure check, inspection of tanks for liquids (inlet and outlet pressure).

### Technical specifications

| Device model            | Measuring range (mbar) | Max. overpressure (bar) | Resolution (mbar)            | Accuracy (% of measured value) |
|-------------------------|------------------------|-------------------------|------------------------------|--------------------------------|
| <b>S2601</b> (FZM 30)   | -20/+150               | 1.35                    | 0.01 (< 19.99) or 0.1 (> 20) | 1.0 ± 1 digit (< 130.0 mbar)   |
| <b>S2610</b> (DMG 15)   | -50/+1,000             | 3                       | 0.1 (< 199.9) or 1.0 (> 200) | 1.0 ± 1 digit (< 1,000 mbar)   |
| <b>S2650-F</b> (DMG 25) | -100/+5,000            | 10                      | 0.1 (< 199.9) or 1.0 (> 200) | 1.0 ± 1 digit (< 5,000 mbar)   |
| <b>S2680-F</b> (DMG 35) | -100/+8,000            | 10.5                    | 0.1 (< 199.9) or 1.0 (> 200) | 1.0 ± 1 digit (< 8,000 mbar)   |

#### Operating temperature range

Ambient: 0/40 °C

Storage: -20/+50 °C

#### Hours of operation (eco mode)

Max. 100 hours

#### Weight (housing)

Approx. 250 g

#### Dimensions

W x H x D: 66 x 143 x 37 mm

#### Display

LCD, transfective

W x H: 46 x 48 mm

#### Hose connection

S2601, S2610: Ø 8 mm

S2650-F, S2680-F: Ø 3 mm (Festo)

#### Supply voltage

2 x 1.5 V Mignon (AA) batteries

#### Approvals

1st German Federal Immission Act (1. BImSchV), EN 50379-2

#### Scope of delivery

Measuring instrument with batteries, calibration report, protective sleeve with magnet



See chapter 6 for options and accessories.

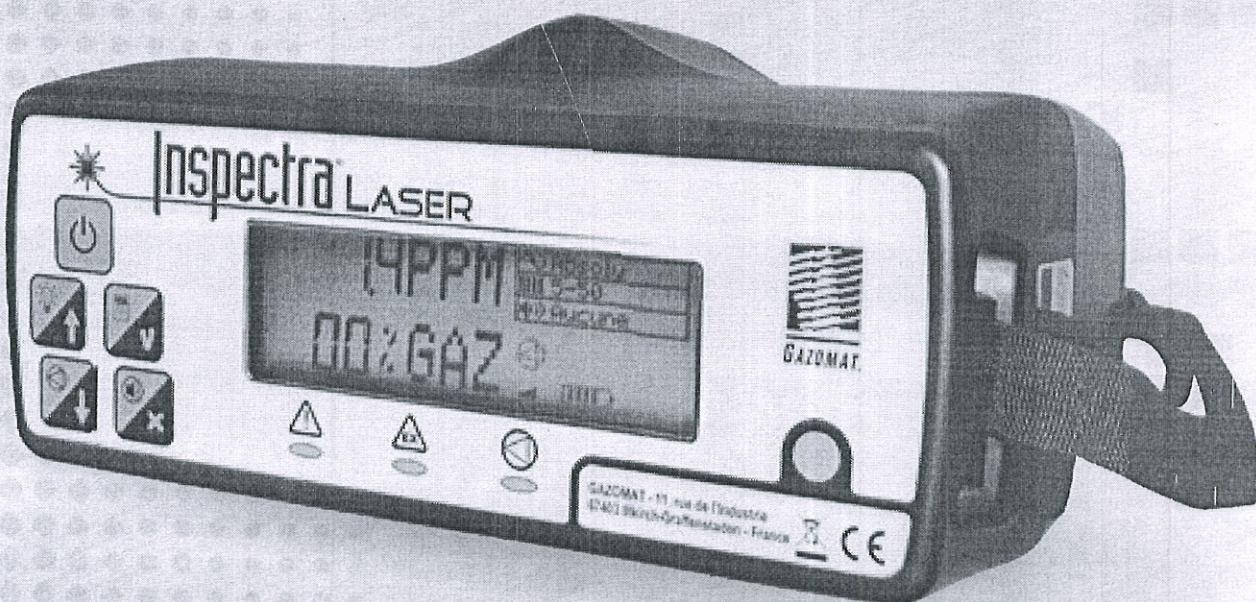


|                                                       |          |         |
|-------------------------------------------------------|----------|---------|
| DG: H, PG: 4                                          | Part no. | Price € |
| <b>Draft measuring instrument S2601</b> (FZM 30)      | 569680   |         |
| <b>Pressure measuring instrument S2610</b> (DMG 15)   | 569681   |         |
| <b>Pressure measuring instrument S2650-F</b> (DMG 25) | 569682   |         |
| <b>Pressure measuring instrument S2680-F</b> (DMG 35) | 569684   |         |



an ecotec company

## Natural Gas Network Survey and Gas Leak Detection



# Inspectra<sup>®</sup> LASER

Laser Technology  
applied to Methane Detection

- 1 ppm sensitivity
- Instant response time
- Total selectivity to methane
- Measurement range extending from 1 ppm to 100 % volume gas

Using laser spectroscopy technology, the INSPECTRA® LASER equipment developed by GAZOMAT™ is a high-performance methane detector. This device meets ATEX standards for use in explosive areas and makes it possible to detect methane leaks and determine their location with precision. It is a truly efficient tool for gas professionals.

#### Total selectivity to methane

The measuring chamber of the INSPECTRA® LASER analyzer is fitted with a laser diode adjusted to the absorption wavelength specific to methane.

In the presence of methane molecules, the laser beam is partially absorbed.

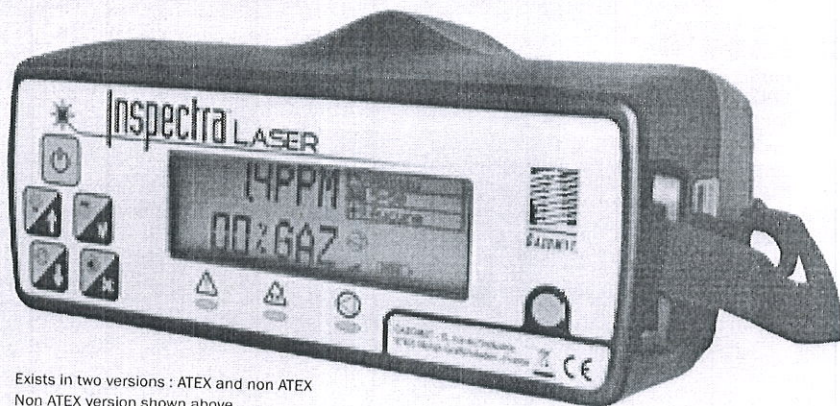
Thus, only methane is detected. The device is insensitive to other hydrocarbon gases, chemicals, water vapours and pollution that may be present in the atmosphere.

#### Sensitivity of 1 ppm

The pass length of the Herriot multipass cell enables the detector to reach sensitivity on the order of the ppm.

#### Unique measuring precision

- 2 measurement scales:
  - PPM scale from 0 ppm to 10,000 ppm
  - GAS scale: from 0 % to 100 % volume gas
- Simultaneous display of double measurement range
- Very quick response time
- Two sampling speeds: 35 l/hour and 70 l/hour.



Exists in two versions : ATEX and non ATEX  
Non ATEX version shown above.

#### INSPECTRA® LASER device available in 3 versions

- Non-ATEX version: measurement range from 0 ppm to 10,000 ppm
- Non-ATEX version: measurement range from 0 ppm to 100% Vol. gas
- ATEX version: measurement range from 0 ppm to 100% Vol. gas

#### Easy to use

- Automatic self-test at start-up
- Wide backlit LCD screen
- Visual and audio indicators (battery charge level, pump status, alarm on/off, risk of explosion, etc.)
- Access to standard and advanced functions with the 5-key keypad and a scrolling menu
- Software dialogue window
- Four measurement ranges with Autoscale function
- Choice of measurement modes: absolute concentration or relative concentration (running mean)
- Long autonomy: 8 hours at 20° C (ATEX version)

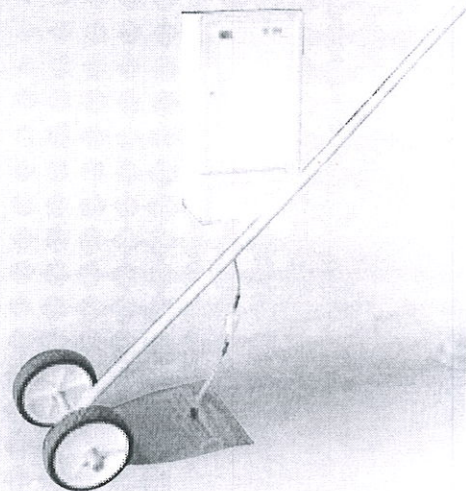
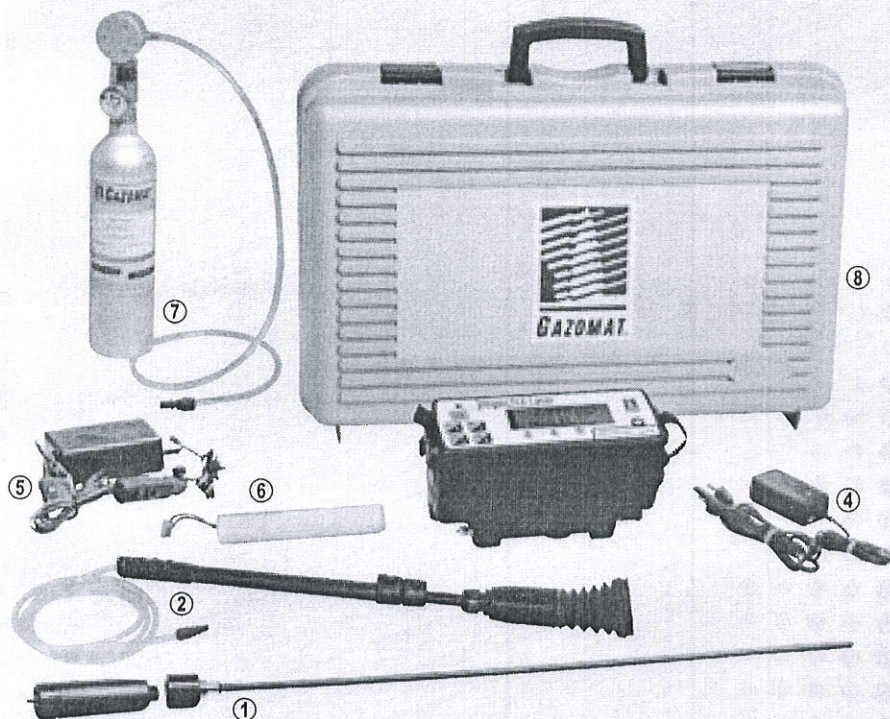
#### Scope of application

- ATEX Version : for use in explosive atmospheres (both inside and outside of buildings), suitable for any application requiring the measurement of natural gas concentrations (methane only) such as :
  - Survey of natural gas network (methane only)
  - Detection and localization of gas leaks (methane only)
  - Monitoring of natural gas compression plants
  - Measurements in laboratories...
- Non ATEX version : for use outside of buildings only and exclusively limited to NON ATEX areas presenting no risk of permanent presence of explosive gases.
- Applications requiring natural gas concentration measurements (methane only).
  - Monitoring of natural emissions of methane (geology, volcanology...)



### Accessories and add-ons

- 1) A long sampling rod with its filter fitted handle
- 2) A telescopic sampling rod with suction-cup
- 3) Water-repellent and dust-proof filters (not shown)
- 4) A 100-240 VAC - 50-60 Hz charger
- 5) A 12 VDC charger (optional)
- 6) A rechargeable battery pack (integrated to the device)
- 7) A Gas Check kit (optional) comprising a flow regulator and a 34 liter canister containing a 10 ppm methane concentration
- 8) A reinforced storage case for the INSPECTRA® LASER analyzer and its accessories.



### Trolley

This accessory fits on by simply connecting the hose to the detector, for taking samples directly from the ground surface with no risk of loss or dilution in the air.

### GPS Tablet system for total traceability of on-foot inspections

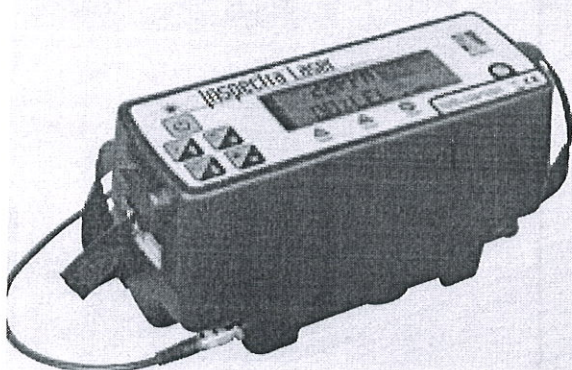
This device enables the operator to keep a computerized record of his detection operations:

- Geographical positioning on a map of detected leak indications
- Recording of concentration measurements
- The operator may insert comments during the on-foot inspection
- Inspection reports are generated (location, date and time, leak numbers, concentrations, weather conditions and operator comments).



### GPS Tablet system equipment

- A micro-antenna worn on the operator's shoulder
- A GPS unit with wireless Bluetooth® communication and USB cable connection
- An ultra-heavy duty touch-screen tablet from Panasonic, the brand selected by GAZOMAT™
- GAZOMAT™'s NGS Multilanguage software, running on Microsoft® Windows® 10.

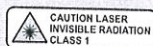


# TECHNICAL SPECIFICATIONS

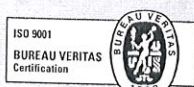
## Inspectra<sup>®</sup> LASER

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Measurement principle</b>                    | <ul style="list-style-type: none"> <li>Laser spectroscopy</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Measurement scales</b>                       | <ul style="list-style-type: none"> <li>Scale 1: 0 ppm - 10,000 ppm</li> <li>Scale 2: 0% to 100% Volume gas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Detection threshold</b>                      | <ul style="list-style-type: none"> <li>1 ppm</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>3 different versions</b>                     | <ul style="list-style-type: none"> <li>Non-ATEX version: measurement range from 0 ppm to 10,000 ppm</li> <li>Non-ATEX version: measurement range from 0 ppm to 100% Vol. gas</li> <li>ATEX version: measurement range from 0 ppm to 100% Vol. gas</li> </ul>                                                                                                                                                                                                                                                                                                                           |
| <b>Response time</b>                            | <ul style="list-style-type: none"> <li>T90 standard: 4.5 seconds</li> <li>T10 standard: 2 seconds</li> <li>With suction rod T90: 6 seconds</li> <li>With suction rod T10: &lt;3.5 seconds</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Display</b>                                  | <ul style="list-style-type: none"> <li>Liquid crystal display with digits, icons and backlighting – 3 areas: <ul style="list-style-type: none"> <li>o concentration measurements (0 to 10,000 ppm and 0.0% to 100.0% volume gas)</li> <li>o status indicators</li> <li>o dialogue window</li> </ul> </li> <li>Height of measurement character for PPM scale and GAS scale: 13 mm</li> </ul>                                                                                                                                                                                            |
| <b>Keypad</b>                                   | <ul style="list-style-type: none"> <li>5 direct-control keys</li> <li>Advanced function control with protected-access scrolling menu</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Power supply ATEX version</b>                | <ul style="list-style-type: none"> <li>ATEX certified Ni-CD rechargeable battery pack: 3 x 1.2V – 4Ah</li> <li>100-240 VAC / 50-60Hz battery charger for ATEX battery pack</li> <li>Charging time up to 14 hours at 0.4Ah</li> </ul>                                                                                                                                                                                                                                                                                                                                                   |
| <b>Power supply non-ATEX version</b>            | <ul style="list-style-type: none"> <li>Non-ATEX Ni-MH rechargeable battery pack: 3 x 1.2V – 10Ah</li> <li>100-240 VAC / 50-60Hz battery charger for non-ATEX battery pack</li> <li>Charging time up to 10 hours at 1Ah</li> </ul>                                                                                                                                                                                                                                                                                                                                                      |
| <b>Autonomy</b>                                 | <ul style="list-style-type: none"> <li>Device operated with no accessories at 20 °C with pump on speed 2 and backlighting off: <ul style="list-style-type: none"> <li>o ATEX version: 8 hours</li> <li>o Non-ATEX version: 20 hours</li> </ul> </li> <li>Device operated with Bluetooth<sup>®</sup> communication kit at 20 °C with pump on speed 2 and backlighting off: <ul style="list-style-type: none"> <li>o ATEX version: 6 hours</li> <li>o Non-ATEX version: 16 hours</li> </ul> </li> <li>Battery life reduced by 20% at temperatures below 0 °C and above 35 °C.</li> </ul> |
| <b>Output of the electric pump</b>              | <ul style="list-style-type: none"> <li>35 l/h (on speed 1) et 70 l/h (on speed 2)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Alarms</b>                                   | <ul style="list-style-type: none"> <li>they activate the visual (LED and LCD displays) and audio warnings <ul style="list-style-type: none"> <li>o Methane CH<sub>4</sub> concentration threshold</li> <li>o Explosion risk due to methane CH<sub>4</sub> concentration</li> <li>o Pump: pump stopped, pump error</li> </ul> </li> </ul>                                                                                                                                                                                                                                               |
| <b>Status indicators</b>                        | <ul style="list-style-type: none"> <li>Battery charge level, pump status (2 speeds)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Gas connection</b>                           | <ul style="list-style-type: none"> <li>Quick-connect inlet coupling with locking mechanism: suction rod on right side</li> <li>Quick-connect gas outlet coupling</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Electrical connections</b>                   | <ul style="list-style-type: none"> <li>Male power plug 2.1 mm : for battery charger</li> <li>Communication with a computer via a specialised communication link</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Housing</b>                                  | <ul style="list-style-type: none"> <li>Housing material: polyamide reinforced with fibre glass and carbon</li> <li>Material of front side: anodized aluminum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Dimensions</b>                               | <ul style="list-style-type: none"> <li>Length 263 mm x Width 113 mm x Height 141 mm (10.3 x 4.4 x 5.5 inches)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Weight</b>                                   | <ul style="list-style-type: none"> <li>2.5 kg (5.5 lbs) with batteries and carry strap</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Conditions of use</b>                        | <ul style="list-style-type: none"> <li>Humidity: from 5 % to 80 % relative humidity</li> <li>Temperature: from -15 °C to +40 °C</li> <li>Pressure: atmospheric pressure 1013 mbar (± 100 mbar)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage conditions (excluding batteries)</b> | <ul style="list-style-type: none"> <li>Humidity: &lt; 90 % relative humidity</li> <li>Temperature: -20 °C to +60 °C</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Protection index</b>                         | <ul style="list-style-type: none"> <li>IP 54</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Certifications</b>                           | <ul style="list-style-type: none"> <li>CE marking</li> <li>94/9/CE directive dated March 23, 1994</li> <li>2004/108/CE directive dated May 21, 1989 : electromagnetic compatibility</li> <li>European standards of use in explosive atmospheres: <ul style="list-style-type: none"> <li>o EN 60079-0 from 2006</li> <li>o EN 60079-11 from 2007</li> </ul> </li> <li>II 2G Ex ib IIB T4</li> <li>INERIS N° 05ATEX0051</li> </ul>                                                                                                                                                       |

**Certifications for the ATEX  
1 ppm to 100 % volume gas version**



Patents No. 7352463 and 1647820



### After-sales service

GAZOMAT provides all customers with comprehensive product assistance and maintenance through its global service teams.

### GAZOMAT<sup>™</sup> S.à.r.l.

11, rue de l'Industrie – BP 40101  
67403 Illkirch-Graffenstaden Cedex – France  
Phone: +33 (0)1 85 65 04 37  
Fax: +33 (0)1 85 65 04 87  
E-mail: info@gazomat.com  
www.gazomat.com

### GAZOMAT<sup>™</sup> North America

850 South Via Lata - Suite 112  
Colton, CA 92324 - USA  
Phone: +1 (909)-906-1001  
E-mail: info@gazomat.com  
www.gazomat.com

**INERIS**

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres  
Directive 94/9/EC

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

- (3) Number of the EC type examination certificate: **INERIS 05ATEX0051**

- (4) Equipment or protective system:

**GAZ DETECTOR TYPE INSPECTRA LASER**

- (5) Manufacturer: **GAZOMAT**

- (6) Address: **11, rue de l'Atome  
F - 67802 BISCHHEIM**

- (7) This equipment or protective system and any other acceptable alternative of this one are described in the appendix of this certificate and the descriptive documents quoted in this appendix.

- (8) The INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23<sup>rd</sup> March 1994, certifies that this equipment or protective system fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, described in appendix II of the Directive.

The examinations and the tests are consigned in official report No P56944/05.

- (9) The respect of the Essential Health and Safety Requirements is ensured by:

- conformity with:

EN 50 014 of June 1997 + Amendment 1 and 2  
EN 50 020 of June 2002

- specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.

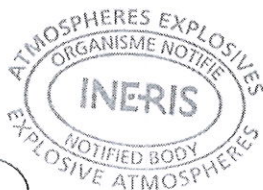
- (10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective system is subjected to the special conditions for safe use, mentioned in the annex of this certificate.

- (11) This EC type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system, these are not covered by this certificate.
- (12) The marking of the equipment or the protective system will have to contain:

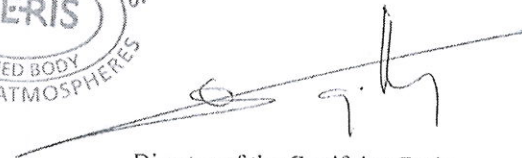
 II 2 G

EEx ib IIB T4

Verneuil-en-Halatte, on 2005 11 24



  
T. DELBAERE  
Engineer at the Laboratory for Certification  
of ATEX Equipment

  
Director of the Certifying Body,  
By delegation  
B. PIQUETTE  
Deputy manager of Certification

(13)

## ANNEX

(14)

EC TYPE EXAMINATION CERTIFICATE N° INERIS 05ATEX0051

### (15) DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

The material is a gas detector

The material gets a protection degree IP54 according to European standard EN 60 529.

#### PARAMETERS RELATING TO THE SAFETY

Characteristics of the cells and batteries :

| Mark      | VARTA                        | DURACELL                     | SAFT           |
|-----------|------------------------------|------------------------------|----------------|
| Reference | 4920                         | Procell MN1300               | VTD70 (VTD137) |
| Type      | Alcaline Pile<br>High Energy | Alcaline Pile<br>High Energy | Battery NiCd   |
| Size      | LR20 D                       | LR20 D                       | LR20 D         |
| Voltage   | 1,5V                         | 1,5V                         | 1,2V           |

#### MARKING

Marking must be readable and indelible; it must comprise the following indications:

- GAZOMAT  
11, rue de l'Atome  
F - 67802 BISCHHEIM
- INSPECTRA LASER
- INERIS 05ATEX0051
- (serial number)
- (Year of construction)
-  II 2 G
- EEx ib IIB T4
- "DO NOT REPLACE THE CELLS OR BATTERIES IN EXPLOSIVE ATMOSPHERE"

The whole of marking can be carried out in the language of the country of use.

The protective system or equipment must also carry the marking normally envisaged by the standards of construction, which relate to it.

ROUTINE EXAMINATIONS AND TESTS

None.

(16) DESCRIPTIVE DOCUMENTS

The documents listed hereafter, constitute the descriptive file of the apparatus, object of this certificate.

- Certification file N°002 AB of 2005.11.16
- User Manual 02\_340\_000\_AB\_BE of 2005.11.16
- Technical file ref 02\_200900\_AB\_BE of 2005.11.15
- Electronic drawing file 02\_200905\_AB\_BE of 2005.11.15
- Drawing file 02\_200910\_AB\_BE of 2005.11.16

All these documents are signed on 2005.11.16

(17) SPECIAL CONDITIONS FOR SAFE USE

See the instruction note.

(18) ESSENTIAL REQUIREMENTS OF SAFETY AND HEALTH

The respect of the Essential Health and Safety Requirements is ensured by:

- the conformity to the European standards EN 50 014 and EN 50 020
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.

This equipment is not evaluated according to annex II §1.5 of 94/9/EC Directive.

## ADDITION

(3) INERIS 05ATEX0051/01

(4) Gas detector Type Inspectra Laser

(5) Made by GAZOMAT

(15) PURPOSE OF THE ADDITION

- Possible change of type pump motor from FAULHABER construction,
- Update of descriptive documents.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety mentioned in the basic certificate are unchanged.

MARKING

The marking defined in the basic certificate is unchanged.

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests stipulated by the basic certificate are unchanged.

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation describing the modification of the equipment, subject of this present addition.

- |                                                           |                      |
|-----------------------------------------------------------|----------------------|
| - Certification file ATEX - (2 pages) rev. AC             | signed on 2006.07.28 |
| - Addition to technical file n° 02-200400-AA-BE (4 pages) | signed on 2006.07.28 |

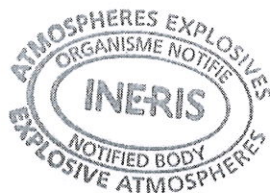
(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions defined in the basic certificate are unchanged.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements defined in the basic certificate is unchanged.

Verneuil-en-Halatte, 2006 09 04



T. DELBAERE

Project Manager at the ATEX  
Equipment Certification Laboratory

Director of the Certifying Body,  
By delegation  
B. PIQUETTE  
Deputy Manager of Certification

## ADDITION

(3) INERIS 05ATEX0051/02

(4) Gas detector Type Inspectra Laser

(5) Made by GAZOMAT

(15) PURPOSE OF THE ADDITION

- Change of fuse caliber which feed the pump circuit
- PCB modifications
- Change of standards which become EN60079-0 and EN60079-11
- Update of descriptive documents.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety mentionned in the basic certificate are unchanged.

MARKING

The marking defined in the basic certificate is modified as follows:

GAZOMAT

11, rue de l'Atome

F - 67802 BISCHHEIM

INSPECTRA LASER

INERIS 05ATEX0051

(Serial number)

(Year of construction)

 II 2 G

Ex ib IIB T4

"DO NOT REPLACE THE CELLS OR BATTERIES IN EXPLOSIVE ATMOSPHERE"

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests stipulated by the basic certificate are unchanged.

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation describing the modification of the equipment, subject of this present addition.

- Certification file ATEX - (2 pages) rev. AD
- Addition to technical file n°02-200401-AC-BE (15 pages)

signed on 2007.03.27

signed on 2007.03.27

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions defined in the basic certificate are unchanged.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is ensured by:

- the conformity to the European standards EN 60079-0:2006 and EN 60079-11:2007.
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.

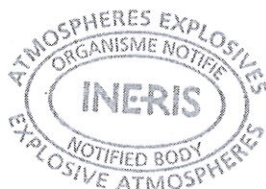
This equipment is not evaluated according to annex II §1.5 of 94/9/EC Directive.

Verneuil-en-Halatte, 2007 04 03



T. DELBAERE

Project Manager at the ATEX Equipment  
Certification Laboratory



Director of the Certifying Body,  
By delegation  
T. HOUEIX  
Certification Officer  
Certification Division

**ATTESTATION D'ESSAIS****ATTESTATION OF TESTS**

EMITECH atteste que l'équipement référencé ci-dessous a subi les essais suivant les normes :  
*EMITECH attests that the equipment specified below underwent tests following the standards:*

EN 301 489-17 V3.2.4 : 2020

EN 301 489-1 V2.2.3 : 2019

EN 50270 : 2015

EN 62479 : 2010

Comme l'atteste le rapport d'essai /As related in the test report :  
- RCE-EMISS21-B569-GAZ-2-A (00)

|                                                                                                                 |                                                                   |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Produit / Product :                                                                                             | <b>Portable gas leak detector (METHAN)</b>                        |
| Marque de fabrique / Trade mark :                                                                               | GAZOMAT                                                           |
| Type / Type:                                                                                                    | INSPECTRA Serie (model Inspectra MAX, Inspectra, Inspectra Laser) |
| Nom du demandeur / Applicant's name:                                                                            | GAZOMAT                                                           |
| Adresse / Address:                                                                                              | 11 RUE DE L'INDUSTRIE<br>67400 ILLKIRCH GRAFFENSTADEN<br>FRANCE   |
| Adresse du fabricant si différent du demandeur<br>Manufacturer's address if different from the applicant's one: | /                                                                 |

Cette attestation résulte d'essais effectués sur un exemplaire du produit.  
*This attestation arises from the tests performed on one sample.*

Cette attestation est à associer au rapport d'essais pour le détail des résultats.  
*This attestation is to associate with the tests report for the detail of results.*

Date : 27/04/2022

Signature : M. MICHAU  
Responsable du Laboratoire CEM

MICHAU Maxime  
EMC / Radio Laboratory Manager



**INERIS**maîtriser le risque  
pour un développement durable

- 2 Appareil ou système de protection destiné à être utilisé en atmosphères explosibles  
*Equipment and protective systems intended for use in potentially explosive atmospheres*

## Directive 2014/34/UE

## Directive 2014/34/EU

### 1 ATTESTATION D'EXAMEN UE DE TYPE EU-TYPE EXAMINATION CERTIFICATE

3 Numéro de l'attestation d'examen UE de type / *Number of the EU-Type Examination Certificate*

**INERIS 19ATEX0018X**

INDICE / ISSUE : 01

4 Appareil ou système de protection / *Equipment or protective system:*

**DETECTEUR DE GAZ PORTABLE TYPE INSPECTRA SERIES  
PORTABLE GAS DETECTOR TYPE INSPECTRA SERIES**

5 Fabricant / *Manufacturer:*

**GAZOMAT™**

6 Adresse / *Address:*

**11, rue de l'Industrie  
F-67400 ILLKIRCH-GRAFFENSTADEN**

7 Cet appareil ou système de protection et toute autre variante acceptable de celui-ci sont décrits dans l'annexe de la présente attestation et dans les documents descriptifs cités dans cette annexe.

*This equipment or protective system and any acceptable variation thereto is specified in the Annex of this certificate and the descriptive documents therein referred to.*

8 L'Ineris, organisme notifié et identifié sous le numéro 0080, conformément aux articles 17 and 21 de la directive 2014/34/UE du parlement européen et du conseil, datée du 26 février 2014, et accrédité par le Cofrac sous le n° 5-0045 dans le cadre de l'activité de certification de produits et services (portée disponible sur [www.cofrac.fr](http://www.cofrac.fr)) certifie que cet appareil ou système de protection répond aux exigences essentielles de sécurité et de santé en ce qui concerne la conception et la construction des appareils et des systèmes de protection destinés à être utilisés en atmosphères explosibles, décrites en annexe ii de la directive.

*Ineris, notified body and identified under number 0080, in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, and accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website [www.cofrac.fr](http://www.cofrac.fr)), certifies that this equipment or protective system fulfils 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.*

Les procédures de certification sont disponibles sur [www.ineris.fr](http://www.ineris.fr).

*The rules of certification are available on Ineris website on: [www.ineris.fr](http://www.ineris.fr).*

Les examens et les essais sont consignés dans le rapport :

*The examinations and the tests are recorded in report:*

N° 036529

9

Le respect des exigences essentielles de sécurité et de santé est assuré par :

*The respect of the Essential Health and Safety Requirements has been assured by:*

- la conformité à / *Conformity with:*

- EN IEC 60079-0 : 2018
- EN 60079-11 : 2012
- EN 60079-28 : 2015

- les solutions spécifiques adoptées par le fabricant pour satisfaire aux exigences essentielles de sécurité et de santé décrites dans les documents descriptifs /

*Specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents*

10

Si le signe X est placé à la suite du numéro de l'attestation d'examen UE de type, il indique que cet appareil ou système de protection est soumis à des conditions spéciales d'utilisation, mentionnées dans l'annexe de la présente attestation.

*If the sign X is placed after the number of the EU type examination certificate, it indicates that this equipment and protective system is subject to the Specific Conditions of Use, mentioned in the annex of this certificate.*

11

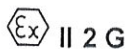
Cette attestation d'examen UE de type se rapporte uniquement à la conception, aux examens et essais de l'appareil ou système de protection spécifié conformément à la directive 2014/34/UE. D'autres exigences de cette directive s'appliquent à la fabrication et à la fourniture de cet appareil ou système de protection, celles-ci ne sont pas couvertes par cette attestation.

*This EU-Type Examination Certificate relates only to the design, examinations and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These requirements are not covered by this certificate.*

12

Le marquage de l'appareil ou du système de protection doit contenir :

*The marking of the equipment or the protective system shall include the following:*



Verneuil-en-Halatte, 2021 08 16



Signé électroniquement  
Digitally signed by  
Dominique CHARPENTIER  
Certification Manager /  
Responsible Certification

Le directeur général de l'Ineris  
Par délégation  
*The Chief Executive Officer of Ineris*  
By delegation

13

## ANNEXE

### 15 DESCRIPTION DE L'APPAREIL OU DU SYSTEME DE PROTECTION :

Le détecteur de gaz type Inspectra series se décline en quatre appellations commerciales et permet la détection et la mesure de fuite dans les réseaux de distribution de gaz, des milieux industriels et des industries chimiques.

Protégé par sécurité intrinsèque, la détection de gaz ou de fuite s'effectue par un module laser.

Le matériel se compose d'une enveloppe en matériau plastique munie de cartes à circuits imprimés sur lesquelles sont implantés les composants électroniques. Comme détaillé dans la documentation technique, le matériel inclut des fusibles couverts par le certificat de Composant Ex SIRA 05ATEX2274U Issue 07 selon la norme EN 60079-0:2012/A11:2013 et EN 60079-11:2012. Ces fusibles ne sont pas impactés par les modifications majeures de la norme EN IEC 60079-0:2018.

L'alimentation du matériel s'effectue par un ensemble de trois éléments de batteries connectées en série.

### PARAMETRES RELATIFS A LA SECURITE :

Tension d'alimentation aux bornes du connecteur de recharge :  $U_m = 250 \text{ V}$

Tension d'alimentation aux bornes du connecteur de communication (BINDER) :  $U_m = 250 \text{ V}$

Caractéristiques des batteries / Batteries characteristics :

| Fabricant / Manufacturer                 | ARTS Energy     | ARTS Energy     |
|------------------------------------------|-----------------|-----------------|
| Référence / Model                        | VNT-D(H) U      | VHT-D(L)        |
| Type / Type                              | Ni-Cd           | Ni-Mh           |
| Capacité / Capacity                      | 4250 mAh        | 6450 mAh        |
| Format / Size                            | LR20 - D        | LR20 - D        |
| Tension par élément/ Voltage per element | 1,55 V / 1.55 V | 1,60 V / 1.60 V |

### MARQUAGE :

Le marquage doit être lisible et indélébile ; il doit comporter les indications suivantes :

GAZOMAT™  
F-67400 Illkirch-Graffenstaden  
INSPECTRA LASER, INSPECTRA MAX, INSPECTRA  
LASER MAX ou INSPECTRA MAX LASER

INERIS INERIS **19ATEX0018X**

(Numéro de série)

(Année de construction)

 II 2 G

Ex ib op is IIB T3 Gb

AVERTISSEMENT :

NE PAS REMPLACER OU RECHARGER LE  
PACK BATTERIES EN ATMOSPHERE  
EXPLOSIBLE

13

## ANNEX

### 15 DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM:

The Gas Detector type Inspectra series is declined in four commercial names and allows to detect and measure gas leakage in industrial gas network from industrial fields and chemical industry.

Protected by intrinsic safety, gas detection or leak is performed by a laser module.

The apparatus is composed of a plastic enclosure provided printed circuits boards on which are implemented electronic components. As detailed in the technical documents, the apparatus includes fuses covered by the Ex Component certificate SIRA 05ATEX2274U Issue 07 in accordance with the standard EN 60079-0:2012/A11:2013 and EN 60079-11:2012. These fuses are not impacted by the major technical changes of the standard EN IEC 60079-0:2018.

Power supply of the apparatus is performed by a whole of three batterie elements connected in series.

### PARAMETERS RELATING TO THE SAFETY:

Supply voltage to charging terminals:  $U_m = 250 \text{ V}$

Supply voltage to communication port (BINDER):  
 $U_m = 250 \text{ V}$

### MARKING:

Marking has to be readable and indelible; it has to include the following indications:

GAZOMAT™  
F-67400 Illkirch-Graffenstaden  
INSPECTRA LASER, INSPECTRA MAX, INSPECTRA  
LASER MAX or INSPECTRA MAX LASER

INERIS INERIS **19ATEX0018X**

(Serial number)

(Year of manufacture)

 II 2 G

Ex ib op is IIB T3 Gb

WARNING:

DO NOT REPLACE OR CHARGE BATTERIES  
PACK IN HAZARDOUS AREA

Ou,

GAZOMAT  
USA – Colton, CA92324  
INSPECTRA LASER, INSPECTRA MAX, INSPECTRA  
LASER MAX ou INSPECTRA MAX LASER

INERIS INERIS **19ATEX0018X**

(Numéro de série)

(Année de construction)



II 2 G

Ex ib op is IIB T3 Gb

AVERTISSEMENT :

NE PAS REMPLACER OU RECHARGER LE PACK  
BATTERIES EN ATMOSPHERE EXPLOSIBLE

L'ensemble du marquage peut être réalisé dans la langue du  
pays d'utilisation.

L'appareil ou le système de protection doit aussi porter le  
marquage normalement prévu par les normes de construction  
qui le concernent.

#### EXAMENS ET ESSAIS INDIVIDUELS :

Néant.

#### 16 DOCUMENTS DESCRIPTIFS :

Les documents descriptifs cités ci-après, constituent la  
documentation technique de l'appareil, objet de la présente  
attestation.

| Titre / Title                                                         | Réf. / Ref. | Rév. / Rev. | Date / Date |
|-----------------------------------------------------------------------|-------------|-------------|-------------|
| Dossier de certification ATEX / ATEX_Certification_folder             | 02-200-999  | AF          | 2021.07.30  |
| Dossier de manuels d'utilisation ATEX / ATEX user's manuals<br>folder | 02-200-916  | AA          | 2021.07.30  |

#### 17 CONDITIONS SPECIALES D'UTILISATION :

- Ce matériel est prévu pour une gamme de températures  
ambiantes de -15°C à +50°C.
- La recharge du pack batteries ou l'utilisation du port de  
communication (BINDER) doivent s'effectuer hors  
atmosphères explosibles

Les autres conditions d'utilisation sont définies dans la notice  
d'instructions.

#### 18 EXIGENCES ESSENTIELLES DE SECURITE ET DE SANTÉ :

Le respect des exigences essentielles de sécurité et de santé  
est assuré par :

- La conformité aux normes listées au paragraphe (9).
- L'ensemble des dispositions adoptées par le constructeur  
et décrites dans les documents descriptifs.

Or,

GAZOMAT  
USA – Colton, CA92324  
INSPECTRA LASER, INSPECTRA MAX, INSPECTRA  
LASER MAX or INSPECTRA MAX LASER

INERIS INERIS **19ATEX0018X**

(Serial number)

(Year of manufacture)



II 2 G

Ex ib op is IIB T3 Gb

WARNING:

DO NOT REPLACE OR CHARGE BATTERIES  
PACK IN HAZARDOUS AREA

Marking may be carried out in the language of the country of  
use.

The protective system or equipment has also to carry the  
marking normally stipulated by its construction standards.

#### ROUTINE EXAMINATIONS AND TESTS:

None.

#### 16 DESCRIPTIVE DOCUMENTS:

The descriptive documents quoted hereafter constitute the  
technical documentation of the equipment, subject of this  
certificate.

#### 17 SPECIFIC CONDITIONS OF USE:

- The equipment is intended to be used in an ambient  
temperature range from -15°C to +50°C.
- Battery pack charging or communication port using  
(BINDER) must be performed outside hazardous  
areas.

The other conditions of use are stipulated in the instructions.

#### 18 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS:

The respect of the Essential Health and Safety  
Requirements is ensured by:

- Conformity to the standards quoted in clause (9).
- All provisions adopted by the manufacturer and  
defined in the descriptive documents.

**19 REMARQUES :**

L'indice 00 fait référence à l'attestation d'examen UE de type n° INERIS 19ATEX0018X émise précédemment conformément à la directive 2014/34/UE pour le matériel type INSPECTRA LASER.

Les modifications de l'indice 01 concernent :

- Introduction de la norme EN IEC 60079-0 :2018,
- Introduction de trois nouvelles appellations commerciales distinctes,
- Retrait de l'utilisation de l'accumulateur de fabrication GP Batteries type GD1000DH,
- Introduction d'un nouveau site de fabrication,
- Modification du routage de la carte principale,
- Utilisation possible de quatre nouveaux types de capteurs piézo-électriques,
- Modifications dimensionnelles de l'ensemble des étiquettes de marquage du matériel,
- Remplacement de l'afficheur de face avant par un nouveau type,
- Modifications de valeur ohmique de quelques résistances,
- Ajout de fusibles encapsulés d'un type certifié de fabrication IS FUSION LTD,
- Mise à jour des documents descriptifs.

**19 REMARKS:**

*The issue 00 refers to the EU-type examination certificate N° INERIS 19ATEX0018X issued previously according to the Directive 2014/34/EU for the apparatus type INSPECTRA LASER.*

*The changes of the issue 01 are regarding:*

- *Introduction of EN IEC 60079-0:2018 standard,*
- *Introduction of three new distinctive commercial names,*
- *Removal using of accumulator from GP Batteries manufacturing type GD1000DH,*
- *Introduction of a new manufacturing plant,*
- *Routing modification of the main board,*
- *Possible using of four new types of piezo-electric sensors,*
- *Dimensional modifications of the whole of label plates of the product,*
- *Replacement of the display of front face by another type*
- *Ohmic value modifications of some resistances,*
- *Adjunction of encapsulated fuses from a certified type from manufacturer IS FUSION LTD,*
- *Update of descriptive documents.*

0092958

БЕЛОРУССКАЯ ТОРГОВО-ПРОМЫШЛЕННАЯ ПАЛАТА  
 Унитарное предприятие по оказанию услуг "Минское отделение Белорусской  
 торгово-промышленной палаты" 220113, г. Минск, ул. Я. Коласа 65, т. 351-04-73  
 (наименование унитарного предприятия Белорусской торгово-промышленной палаты, место нахождения, телефон)

## СЕРТИФИКАТ

№ 153.1/1095-1

продукции собственного производства

1. Производитель Научно-производственное общество с дополнительной  
ответственностью «ФАРМЭК», 220013, г. Минск, улица Кульман, дом 2-2,  
комната 445, Республика Беларусь

Наименование обособленных подразделений юридического лица, осуществляющих производство продукции,  
 место нахождения \_\_\_\_\_

2. Регистрационный номер производителя в Едином государственном регистре юридических лиц и индивидуальных  
 предпринимателей 100162047

3. Место нахождения производства г. Минск, ул. Кульман, 2 (изолированное помещение  
2), Республика Беларусь; г. Минск, ул. Жилуновича, 2 В-13, 2 В-4, 2 В-3,  
Республика Беларусь

4. Наименование продукции, код продукции в соответствии с единой Товарной номенклатурой внешнеэкономической  
 деятельности Евразийского экономического союза \_\_\_\_\_

1. Газоанализатор ФП11.2К \_\_\_\_\_ Код ТН ВЭД: \_\_\_\_\_

2. Течеискатель-сигнализатор ФП12 \_\_\_\_\_ 9027101000

3. Газоанализатор ФП21 \_\_\_\_\_ 9027101000

Смотри приложение на трех листах

5. Сертификат действителен с 03 января 2022 г. до 01 января 2023 г.

6. На основании результатов проведенной экспертизы настоящим подтверждаю, что продукция, указанная  
 в пункте 4 настоящего сертификата, относится к продукции собственного производства.

Начальник ОЭС №1

(должность, подпись лица, выданшего сертификат)

М.В. Гуринович

(фамилия, имя, отчество)

21.03.2022

(дата)



0158007

## БЕЛОРУССКАЯ ТОРГОВО-ПРОМЫШЛЕННАЯ ПАЛАТА

Унитарное предприятие по оказанию услуг "Минское отделение Белорусской торгово-промышленной палаты", 220118, г. Минск, ул. Я. Коласа, 65, т. 351-04-73

## ПРИЛОЖЕНИЕ К СЕРТИФИКАТУ

№ 153.1/1095-1

продукции собственного производства

1. Наименование продукции, код продукции в соответствии с единой Товарной номенклатурой внешнеэкономической деятельности Евразийского экономического союза

|                                                                 | Код ТН ВЭД: |
|-----------------------------------------------------------------|-------------|
| 11.6. Блок питания и сигнализации (БПС)                         | 9027908000  |
| 12. Сигнализатор загазованности ФСТ-05КБ                        | 9027101000  |
| 13. Комплекс поисково-диагностический «Прогресс» ФК-01          | 9030320009  |
| 14. Генератор сигнала Прогресс ФКГ-100                          | 8543200000  |
| 15. Блок датчика электрохимический ФСТ-03В1 Э (БД ФСТ-03В1 Э)   | 9027101000  |
| 16. Блок датчика оптический ФСТ-03В1 О (БД ФСТ-03В1 О)          | 9027101000  |
| 17. Блок датчика термokatалитический ФСТ-03В1 Т (БД ФСТ-03В1 Т) | 9027101000  |
| 18. Блок питания и сигнализации (БПС) ФСТ-03В1                  | 9027908000  |
| 19. Трассоискатель универсальный «Прогресс» К-3                 | 9030320009  |
| 20. Газоанализатор ФП35                                         | 9027101000  |
| 20.1. Блок датчика (БД) СН4; С3Н8 ФП35                          | 9027908000  |
| 20.2. Блок датчика (БД) СО2 ФП35                                | 9027908000  |
| 20.3. Блок датчика (БД) СО ФП35                                 | 9027908000  |
| 20.4. Блок датчика (БД) О2 ФП35                                 | 9027908000  |
| 20.5. Блок датчика (БД) Н2S ФП35                                | 9027908000  |
| 20.6. Блок датчика (БД) СхНу ФП35                               | 9027908000  |
| 21. Индикатор утечки газа ФТ35                                  | 9027101000  |
| 22. Измеритель давления газа ФД35                               | 9026202000  |
| 23. Генератор сигнала «ПРОГРЕСС» ФКГ-01М                        | 8543200000  |
| 24. Части прибора GFM 2.0:                                      |             |
| 24.1. Блок потока GFM 2.0 PR21-03.03.00.000                     | 9027908000  |

Смотри продолжение

2. На основании результатов проведенной экспертизы настоящим подтверждаю, что продукция, указанная в пункте 1 настоящего приложения, относится к продукции собственного производства.

Начальник ОЭИС №1

(Фамилия, Имя, Отчество)

21.03.2022

М.П.

0158006

## БЕЛОРУССКАЯ ТОРГОВО-ПРОМЫШЛЕННАЯ ПАЛАТА

Унитарное предприятие по оказанию услуг "Минское отделение Белорусской  
торгово-промышленной палаты", 220113, г. Минск, ул. Я. Коласа, 65, т. 351-04-73

## ПРИЛОЖЕНИЕ К СЕРТИФИКАТУ

продукции собственного производства

№ 153.1/1095-1

1. Наименование продукции, код продукции в соответствии с единой Товарной номенклатурой внешнеэкономической  
деятельности Евразийского экономического союза

Код ТН ВЭД:

|                                         |            |
|-----------------------------------------|------------|
| 4. Газоанализатор ФП22                  | 9027101000 |
| 5. Газоанализатор ФП33                  | 9027101000 |
| 6. Газоанализатор ФП34                  | 9027101000 |
| 6.1. Блок датчика (БД) СН4; СЗН8 ФП34   | 9027908000 |
| 6.2. Блок датчика (БД) СО2 ФП34         | 9027908000 |
| 6.3. Блок датчика (БД) СО ФП34          | 9027908000 |
| 6.4. Блок датчика (БД) О2 ФП34          | 9027908000 |
| 6.5. Блок датчика (БД) Н2S ФП34         | 9027908000 |
| 6.6. Блок датчика (БД) СхНу ФП34        | 9027908000 |
| 7. Индикатор утечки газа ФТ-02В1        | 9027101000 |
| 8. Измеритель давления газа ФД-09       | 9026202000 |
| 9. Блок релейного расширения (БРР)      | 9027908000 |
| 10. Газоанализатор ФСТ-03м в составе:   | 9027101000 |
| 10.1. Блок датчика (БД) СО              | 9027908000 |
| 10.2. Блок датчика (БД) Ех              | 9027908000 |
| 10.3. Блок датчика (БД) СН4; СЗН8       | 9027908000 |
| 10.4. Блок питания и сигнализации (БПС) | 9027908000 |
| 11. Газоанализатор ФСТ-03В в составе:   | 9027101000 |
| 11.1. Блок датчика (БД) СО              | 9027908000 |
| 11.2. Блок датчика (БД) СН4; СЗН8       | 9027908000 |
| 11.3. Блок датчика (БД) NH3             | 9027908000 |
| 11.4. Блок датчика (БД) О2              | 9027908000 |
| 11.5. Блок датчика (БД) Ех              | 9027908000 |

Смотри продолжение

2. На основании результатов проведенной экспертизы настоящим подтверждаю, что продукция, указанная  
в пункте 1 настоящего приложения, относится к продукции собственного производства.

Начальник ОЗИС №1



(Фамилия, имя, отчество)

М.В. Гуринович

21.03.2022

0158008

## БЕЛОРУССКАЯ ТОРГОВО-ПРОМЫШЛЕННАЯ ПАЛАТА

Унитарное предприятие по оказанию услуг "Минское отделение Белорусской  
торгово-промышленной палаты", 220118, г. Минск, ул. Я. Коласа, 65, т. 351-04-73

## ПРИЛОЖЕНИЕ К СЕРТИФИКАТУ

продукции собственного производства

№ 153.1/1095-1

1. Наименование продукции, код продукции в соответствии с единой Товарной номенклатурой внешнеэкономической  
деятельности Евразийского экономического союза

|                                                 | Код ТН ВЭД: |
|-------------------------------------------------|-------------|
| 24.2. Блок питания GFM 2.0 PR21-03.04.00.000    | 9027908000  |
| 24.3. Блок датчиков GFM 2.0 PR21-03.01.00.000   | 9027908000  |
| 24.4. Блок управления GFM 2.0 PR21-03.02.00.000 | 9027908000  |

2. На основании результатов проведенной экспертизы настоящим подтверждаю, что продукция, указанная  
в пункте 1 настоящего приложения, относится к продукции собственного производства.

Начальник ОЭИС №1



(Фамилия, имя, отчество)

М.В. Гуринович

21.03.2022



# СЕРТИФИКАТ

Настоящим удостоверяется, что система менеджмента качества

**Научно-производственного общества с дополнительной  
ответственностью "ФАРМЭК"**

ул. Кульман, 2-2, комн. 445, Минск, 220013, Республика Беларусь

была проверена и признана соответствующей требованиям стандарта

**ISO 9001:2015  
(СТБ ISO 9001-2015)**

**в отношении проектирования (конструирования), производства и  
ремонта газоанализаторов, сигнализаторов, теченскателей газов и  
оборудование для обнаружения и диагностики подземных  
коммуникаций**

№: 21.0852.026

от 28 мая 2021 г.

Система менеджмента сертифицирована с 2015 года

Сертификат действителен до **23 января 2024 г.**

  
Генеральный директор Ассоциации  
по сертификации "Русский Регистр"

Действие сертификата распространяется только на площадки компании, указанные в настоящем сертификате. Сертификат теряет силу в случае невыполнения условий сертификации (<http://www.rusregister.ru/doc/004.00-105.pdf>).



ПЕРЕЧЕНЬ ГОСУДАРСТВ, ПРЕДСТАВЛЕННЫХ В IAF И ПОДПИСАВШИХ МНОГОСТОРОННЕЕ СОГЛАШЕНИЕ О ПРИЗНАНИИ IAF MLA\*: Австралия и Новая Зеландия JAS-ANZ, Аргентина OAA, Австрия AA, Бельгия BELAC, Болгария EA-BAS, Бразилия CGCRE, Великобритания UKAS, Венгрия NAB, Вьетнам VoA, Германия DAKKS, Гонг-Конг HKAS, Греция ESYD, Дания DANAK, Египет EGAC, Индия NAVCB, Индонезия KAN, Иран NACI, Ирландия INAB, Испания ENAC, Италия ACCREDIA, Казахстан NCA, Канада SCC, Китай CNAS, Колумбия ONAC, Корея KAB, Коста-Рика ECA, Люксембург OLAS, Малайзия DSM, Мексика EMA, Нидерланды RvA, Норвегия NA, ОАЭ DAC, ARAC, Пакистан PNAC, Перу INACAL-DA, Польша PCA, Португалия IPAC, Румыния RENAR, Сербия ATS, Сингапур SAC, Словакия SNAS, Словения SA, США ANAB, IAS, Таиланд NSC, Тайвань TAF, Тунис TUNAC, Турция TURKAK, Украина NAAU, Уругвай OUA, Филиппины PAB, Финляндия FINAS, Франция COFRAC, Чехия CAI, Чили INN, Швейцария SAS, Швеция SWEDAC, Шри-Ланка SLAB, Эквадор SAE, Южная Африка SANAS, Япония JAB

\* Перечень членов IAF, подписавших MLA, может меняться. Актуальный перечень органов по аккредитации – членов IAF MLA доступен на официальном сайте IAF: [www.iaf.eu](http://www.iaf.eu)



# CERTIFICATE

This is to certify that the Quality Management System of  
**Scientific and Production Company with additional  
responsibility "Farmek"**

2-2, Kulman Str., room 445, 220013, Minsk, Republic of Belarus

has been assessed and found to be in accordance  
with the requirements of

**ISO 9001:2015  
(STB ISO 9001-2015)**

in respect of design, production and repair of gas detectors, gas alarms,  
gas leak detectors and equipment for detection and diagnostics  
of underground utilities

No: 21.0852.026  
of 28<sup>th</sup> May, 2021

Management system certified since 2015

This certificate is valid until **23<sup>rd</sup> January, 2024**

  
Director General of Certification  
Association "Russian Register"

The certificate covers only those sites of the company which are stated in this certificate. This certificate becomes invalid if conditions of certification are not fulfilled (<http://www.rusregister.ru/doc/004.00-105.pdf>).



LIST OF THE COUNTRIES WHICH ARE REPRESENTED IN IAF AND ARE SIGNATORIES OF THE MULTILATERAL AGREEMENT ON RECOGNITION IAF MLA\*:

Australia and New Zealand JAS-ANZ, Argentina OAA, Austria AA, Belgium BELAC, Bulgaria EA-BAS, Brazil CGCRE, Great Britain UKAS, Hungary NAH, Vietnam BoA, Germany DAKKS, Hong-Kong HKAS, Greece ESYD, Denmark DANAK, Egypt EGAC, India NABCB, Indonesia KAN, Iran NACI, Ireland INAB, Spain ENAC, Italy ACCREDIA, Kazakhstan NCA, Canada SCC, China CNAS, Colombia ONAC, Korea KAB, Costa Rica ECA, Luxemburg OLAS, Malaysia DSM, Mexico EMA, Netherlands RvA, Norway NA, UAE DAC, ARAC Pakistan PNAC, Peru INACAL-DA, Poland PCA, Portugal IPAC, Rumania RENAR, Serbia ATS, Singapore SAC, Slovakia SNAS, Slovenia SA, USA ANAB, IAS, Thailand NSC, Taiwan TAF, Tunisia TUNAC, Turkey TURKAK, Ukraine NAAU, Uruguay OUA, Philippines PAB, Finland FINAS, France COFRAC, Czech Republic CAI, Chile INN, Switzerland SAS, Sweden SWEDAC, Sri-Lanka SLAB, Ecuador SAE, South Africa SANAS, Japan JAB

\* List of MLA signatory IAF members may change. Current list of MLA IAF member accreditation bodies is available on IAF website: [www.iaf.nu](http://www.iaf.nu)



THE INTERNATIONAL CERTIFICATION NETWORK

# CERTIFICATE

Certification Association "Russian Register" has issued an IQNet recognized certificate that the organization:

**Scientific and Production Company with additional responsibility "Farmek"**

2-2, Kulman Str., room 445, 220013, Minsk, Republic of Belarus

has implemented and maintains a

**Quality Management System**

for the following scope:

design, production and repair of gas detectors, gas alarms, gas leak detectors and equipment for detection and diagnostics of underground utilities

which fulfils the requirements of the following standard:

**ISO 9001:2015  
(STB ISO 9001-2015)**

Issued on: **28<sup>th</sup> May, 2021**

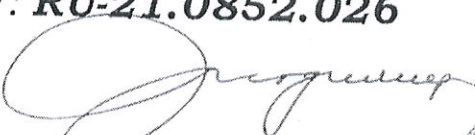
Expires on: **23<sup>rd</sup> January, 2024**

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

Registration Number: **RU-21.0852.026**



  
Alex Stoichitoiu  
President of IQNet

  
Arkady Vladimirtsev,  
Director General of  
Russian Register



**IQNet Partners\*:**

AENOR Spain AFNOR Certification France APCER Portugal CCC Cyprus CISQ Italy  
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany EAGLE Certification Group USA  
FCAV Brazil FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifointi Oy Finland INTECO Costa Rica  
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland  
NYCE-SIGE México PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia  
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia  
\* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under [www.iqnet-certification.com](http://www.iqnet-certification.com)

НАЦИОНАЛЬНАЯ СИСТЕМА ПОТВЕРЖДЕНИЯ СООТВЕТСТВИЯ РЕСПУБЛИКИ БЕЛАРУСЬ

|      |                    |
|------|--------------------|
| БГЦА | ВУ/112 003 02      |
| БСА  | ГОСТ ISO/IEC 17065 |

Орган по сертификации продукции и услуг  
Республиканское унитарное предприятие  
"Белорусский государственный институт метрологии",  
Старовиленский тракт, 93, 220053, г. Минск



## СЕРТИФИКАТ СООТВЕТСТВИЯ



Зарегистрирован в реестре  
№ ВУ/112 04.18. 003 17712

Дата регистрации  
Действителен до

26 февраля 2021 г.  
26 февраля 2026 г.

Настоящий сертификат соответствия выдан  
**Научно-производственному обществу**  
**с дополнительной ответственностью**  
**"ФАРМЭК"**

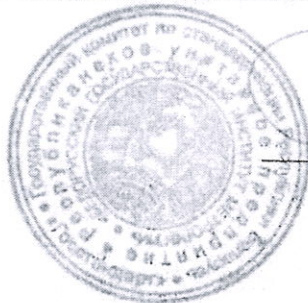
УНП - 100162047  
место нахождения — ул. Кульман, 2-2, ком. 445, 220013, г. Минск,  
Республика Беларусь,

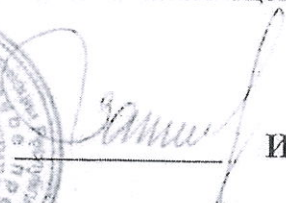
объект оказания услуг научно-производственного общества с дополнительной  
ответственностью "ФАРМЭК" расположен по адресу — ул. Кульман, 2-2,  
ком. 297, г. Минск, Республика Беларусь,

и удостоверяет, что оказание услуг по ремонту средств измерений согласно  
приложению № 1(бланк № 1061171)  
соответствует требованиям СТБ 8031-2007.

Сертификат соответствия выдан на основании отчета по оценке от 25.02.2021.

Начальник отдела



  
И.В.Захаренкова

№ 0262974

**Приложение 1**  
к сертификату соответствия  
№ ВУ/112 04.18. 003 17712  
от 26.02.2021  
(бланк 0262974)  
Листов 2 Лист 1

Перечень ремонтируемых средств измерений:

| Код вида измерений | Наименование средств измерений                                           | Пределы измерений                                                                                                                                                                                                                                      | Класс точности (погрешность/неопределенность)                                                                                                                                                                                                                 |
|--------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09                 | Теченскатели - сигнализаторы ТС-92В, ТС-92 ВМ                            | 0,03 – 100 % об. доли $CH_4$<br>0,012 – 100 % об. доли $C_3H_8$<br>0,01 – 100 % об. доли $H_2$                                                                                                                                                         | $\pm 0,4$ % об. доли $CH_4$<br>$\pm 0,16$ % об. доли $C_3H_8$<br>$\pm 0,32$ % об. доли $H_2$                                                                                                                                                                  |
| 09                 | Измеритель метана (пропана) ИМ-93                                        | 0 – 5 % об. доли $CH_4$<br>0 – 2 % об. доли $C_3H_8$                                                                                                                                                                                                   | $\pm 0,4$ % об. доли $CH_4$<br>$\pm 0,4$ % об. доли $C_3H_8$                                                                                                                                                                                                  |
| 09                 | Сигнализаторы утечки многоканальные СУМ-94М, СУМ-94М-1                   | 1 % об. доли $CH_4$<br>0,4 % об. доли $C_3H_8$                                                                                                                                                                                                         | $\pm 0,4$ % об. доли $CH_4$<br>$\pm 0,16$ % об. доли $C_3H_8$<br>Р = 90 % об. доли                                                                                                                                                                            |
| 09                 | Индикаторы дозрывных концентраций ИДК-95, ИДК-95.1, ИДК-95М              | 0 – 2,5%, об. доли $CH_4$<br>0 – 1,0%, об. доли $C_3H_8$<br>0 – 2,0%, об. доли $H_2$                                                                                                                                                                   | $\pm 0,25$ %, об. доли $CH_4$<br>$\pm 0,10$ %, об. доли $C_3H_8$<br>$\pm 0,20$ %, об. доли $H_2$                                                                                                                                                              |
| 09                 | Теченскатель для подземных газопроводов ТПГ-94                           | 0,001 – 100%, об. доли $CH_4$                                                                                                                                                                                                                          | -                                                                                                                                                                                                                                                             |
| 09                 | Сигнализатор концентраций горючих газов СКГГ-1                           | 0 – 2,5%, об. доли $CH_4$<br>0 – 1,0%, об. доли $C_3H_8$                                                                                                                                                                                               | $\pm 0,25$ %, об. доли $CH_4$<br>$\pm 0,10$ %, об. доли $C_3H_8$                                                                                                                                                                                              |
| 09                 | Сигнализаторы концентраций аммиака стационарные ССА-1 (ССА-1.1, ССА-1.2) | (0 – 100) мг/м <sup>3</sup><br>(0 – 1700) мг/м <sup>3</sup>                                                                                                                                                                                            | $\pm 10$ мг/м <sup>3</sup><br>$\pm 10$ мг/м <sup>3</sup>                                                                                                                                                                                                      |
| 09                 | Сигнализатор концентрации хлора стационарный ССХ-1                       | (0 – 10) мг/м <sup>3</sup><br>(0 – 5) мг/м <sup>3</sup><br>(5 – 10) мг/м <sup>3</sup>                                                                                                                                                                  | $\pm 1$ мг/м <sup>3</sup><br>$\pm 2$ мг/м <sup>3</sup>                                                                                                                                                                                                        |
| 09                 | Газоанализаторы ФП 11 (ФП 11.1, ФП 11.2, ФП 11.3, ФП 11.2к)              | 0 – 2,50 %, об. доли $CH_4$<br>0 – 1,00 %, об. доли $C_3H_8$<br>0 – 2,00 %, об. доли $H_2$                                                                                                                                                             | $\pm 0,25$ %, об. доли $CH_4$<br>$\pm 0,10$ %, об. доли $C_3H_8$<br>$\pm 0,20$ %, об. доли $H_2$                                                                                                                                                              |
| 09                 | Газоанализатор ФСТ-03В                                                   | 0 – 2,50 %, об. доли $CH_4$<br>0 – 1,00 %, об. доли $C_3H_8$<br>10-125 мг/м <sup>3</sup> CO<br>0,5-25 мг/м <sup>3</sup> Cl <sub>2</sub><br>15– 625 мг/м <sup>3</sup> NH <sub>3</sub><br>100– 1750 мг/м <sup>3</sup> NH <sub>3</sub><br>0-50 Ех, % НКПР | $\pm 0,25$ %, об. доли $CH_4$<br>$\pm 0,10$ %, об. доли $C_3H_8$<br>$\pm 25$ мг/м <sup>3</sup> CO<br>$\pm 25$ мг/м <sup>3</sup> Cl <sub>2</sub><br>$\pm 25$ мг/м <sup>3</sup> NH <sub>3</sub><br>$\pm 25$ мг/м <sup>3</sup> NH <sub>3</sub><br>$\pm 5\%$ НКПР |
| 09                 | Газоанализаторы ФСТ-03, ФСТ-03м                                          | 0 – 2,50 %, об. доли $CH_4$<br>0 – 1,00 %, об. доли $C_3H_8$<br>10-125 мг/м <sup>3</sup> CO<br>0-50 Ех, % НКПР                                                                                                                                         | $\pm 0,25$ %, об. доли $CH_4$<br>$\pm 0,10$ %, об. доли $C_3H_8$<br>$\pm 25$ мг/м <sup>3</sup> CO<br>$\pm 5\%$ НКПР Ех                                                                                                                                        |

Начальник отдела



И.В. Захаренкова

Ведущий инженер  
по стандартизации и сертификации

М.Г.Бобков

№ 1061171

| Код вида измерений | Наименование средств измерений                                                      | Пределы измерений                                                                                                                                                                                                                                       | Класс точности (погрешность/неопределенность)                                                                                                                                               |
|--------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09                 | Газоанализатор ФП-10                                                                | 0-25,0 %, об. доли $O_2$                                                                                                                                                                                                                                | $\pm 2,0$ %, об. доли $O_2$                                                                                                                                                                 |
| 09                 | Газоанализатор ФСТ-04                                                               | 0 – 2,50 %, об. доли $CH_4$<br>0 – 1,00 %, об. доли $C_3H_8$<br>10 - 125 мг/м <sup>3</sup> CO                                                                                                                                                           | $\pm 0,25$ %, об. доли $CH_4$<br>$\pm 0,10$ %, об. доли $C_3H_8$<br>$\pm 25$ мг/м <sup>3</sup> CO                                                                                           |
| 09                 | Газоанализатор ФП 21                                                                | 0 – 2,50 %, об. доли $CH_4$<br>0 – 1,00 %, об. доли $C_3H_8$                                                                                                                                                                                            | $\pm 0,25$ %, об. доли $CH_4$<br>$\pm 0,10$ %, об. доли $C_3H_8$                                                                                                                            |
| 09                 | Газоанализатор ФП 33                                                                | 0 – 2,50 %, об. доли $CH_4$<br>0 – 1,00 %, об. доли $C_3H_8$<br>0-25,0 %, об. доли $O_2$<br>10-125 мг/м <sup>3</sup> CO                                                                                                                                 | $\pm 0,25$ %, об. доли $CH_4$<br>$\pm 0,10$ %, об. доли $C_3H_8$<br>$\pm 0,5$ %, об. доли $O_2$<br>$\pm 25$ мг/м <sup>3</sup> CO                                                            |
| 09                 | Течеискатель-сигнализатор ФП 12                                                     | 0,001 %, об. доли $CH_4$<br>0,003 %, об. доли $C_3H_8$<br>1,0 %, об. доли $CH_4$<br>0,40 %, об. доли $C_3H_8$                                                                                                                                           | -<br>-<br>$\pm 0,40$ %, об. доли $CH_4$<br>$\pm 0,16$ %, об. доли $C_3H_8$                                                                                                                  |
| 09                 | Газоанализатор ФП22                                                                 | 0 – 2,50% об. доли $CH_4$<br>0 – 1,00% об. доли $C_3H_8$<br>0 – 2,00 % об. доли H                                                                                                                                                                       | $\pm 0,25$ % об. доли $CH_4$<br>$\pm 0,10$ % об. доли $C_3H_8$<br>$\pm 0,20$ % об. доли $H_2$                                                                                               |
| 09                 | Газоанализатор ФП34                                                                 | 0 – 5,0% об. доли $CH_4$<br>5 – 100% об. доли $CH_4$<br>0 – 2,5 % об. доли $CO_2$<br>0 – 2,0 %, об. доли $C_3H_8$<br>0 – 30 мг/м <sup>3</sup> CO<br>30-120 мг/м <sup>3</sup> CO<br>0 – 10 мг/м <sup>3</sup> $H_2S$<br>10 – 100 мг/м <sup>3</sup> $H_2S$ | $\pm 0,1$ об. доли, %<br>$\pm 0,1$ об. доли, %<br>$\pm 0,1$ об. доли, %<br>$\pm 0,05$ об. доли, %<br>$\pm 7,5$ мг/м <sup>3</sup><br>$\pm 25$ %<br>$\pm 2,5$ мг/м <sup>3</sup><br>$\pm 25$ % |
| 09                 | Сигнализаторы загазованности ФСТ-05КБ                                               | Пороги срабатывания сигнализации<br>0,50% об. доли $CH_4$<br>0,20%, об. доли $C_3H_8$<br>30 мг/м <sup>3</sup> CO                                                                                                                                        | $\pm 0,25$ %<br>$\pm 0,10$ %<br>$\pm 15$ мг/м <sup>3</sup>                                                                                                                                  |
| 09                 | Блоки датчиков оптические ФСТ-03В1 О                                                | 0 – 5,0% об. доли $CH_4$<br>0 – 2,5% об. доли $CO_2$<br>от 0 до 99,9 % НКПР Ex                                                                                                                                                                          | $\pm 0,1$ об. д, %<br>$\pm 0,1$ об. д, %<br>$\pm 2,0$ % НКПР                                                                                                                                |
| 09                 | Сигнализаторы загазованности ФСТ-05КБ Блоки датчиков термокаталитические ФСТ-03В1 Т | 0 – 2,50 % об. доли $CH_4$<br>0 – 1,00 % об. доли $C_3H_8$<br>0 – 2,00 % об. доли $H_2$<br>от 0 до 50,0 % НКПР Ex                                                                                                                                       | $\pm 0,25$ % об. доли $CH_4$<br>$\pm 0,10$ % об. доли $C_3H_8$<br>$\pm 0,20$ % об. доли $H_2$<br>$\pm 5$ % НКПР                                                                             |
| 09                 | Блоки датчиков электрохимические ФСТ-03В1 Э                                         | 0-25,0%, об. доли $O_2$<br>0-125 мг/м <sup>3</sup> CO<br>0– 625 мг/м <sup>3</sup> $NH_3$<br>0– 1750 мг/м <sup>3</sup> $NH_3$<br>0 – 50 мг/м <sup>3</sup> $H_2S$                                                                                         | $\pm 0,5$ %,<br>$\pm 5$ мг/м <sup>3</sup> или 25 %<br>$\pm 15$ мг/м <sup>3</sup> или 25 %<br>$\pm 75$ мг/м <sup>3</sup> или 25 %<br>$\pm 5$ мг/м <sup>3</sup> или 25 %                      |
| 09                 | Измерители давления газа ФД 09                                                      | От 0 до 20 кПа                                                                                                                                                                                                                                          | $\pm 1\%$ и более                                                                                                                                                                           |

Начальник отдела



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