

[ 1 ] **EU-TYPE EXAMINATION CERTIFICATE**

[ 2 ] Equipment or protective system intended for use in potentially explosive atmospheres –  
Directive 2014/34/EU

[ 3 ] EU-type examination certificate Number: **CETS 22 ATEX 017 X** Issue:0

[ 4 ] Product: **FLAME DETECTORS SPECTRON-601-EXD, SPECTRON-801-EXD,  
SPECTRON-804-EXD, SPECTRON-901-EXD**

[ 5 ] Manufacturer: **SCIENTIFIC PRODUCTION ASSOCIATION SPECTRON  
LIMITED LIABILITY COMPANY (SPA SPECTRON LLC)**

[ 6 ] Legal address: **620036, Yekaterinburg, st. Listvennaya, 61, Russia**

Actual address: **623700, Berezovsky, Sverdlovsk region, st. Lenina, 2D, Russia**

[ 7 ] This product any of acceptable variation thereto is specified in the schedule to this certificate  
and the documents therein referred to.

[ 8 ] The Certification body SIA «CE-Test», notified body number 2861 in accordance with  
Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26  
February 2014, certifies that this product has been found to comply with the Essential Health  
and Safety Requirements relating to the design and construction of products intended for use in  
potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in confidential Evaluation report  
number 017/2022 from 01.02.2022

[ 9 ] Compliance with Essential Health and Safety Requirements has been assured by  
compliance with: EN IEC 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 the product is subject to  
Specified Conditions of Safe Use specified in the schedule to this certificate

[ 11 ] This EU-Type Examination Certificate relates only to the design and construction of the  
specified product in accordance to the Directive 2014/34/EU. Further requirements of the  
directive apply to the manufacturing process and supply of this product. These are not covered by  
this certificate.

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



**I M2 Ex db I Mb**  
**II 2G Ex db IIB T6 Gb**  
**II 2D Ex tb IIIC T85°C Db**  
**Or**  
**II 2G Ex db IIB T6 Gb**  
**II 2D Ex tb IIIC T85°C Db**  
**-55 °C ≤ Ta ≤ +85°C**



  
Date of Certificate: 03.02.2022

Responsible person: **Ing. Pavlo Khorunzhyi**  
**Head of certification body**

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and without any change, schedule included.

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# [ 13 ] SCHEDULE

[ 14 ] EU-TYPE EXAMINATION CERTIFICATE: **CETS 22 ATEX 017 X** Issue: 0

## [ 15 ] Description of Product

The detector is an automatic optoelectronic device that is designed to detect fires by infrared radiation of the flame, generate and transmit a signal to the equipment of technical means of warning, fire alarm and fire extinguishing control. Spectron flame detectors are explosion-proof devices, they have versions that differ in functionality, housing material, output signal type and explosion protection.

Different models differ from each other in size and equipment installed inside them.

Spectron <sub>1</sub> XXX <sub>2</sub> XXX <sub>3</sub> X <sub>4</sub>

Spectron <sub>1</sub> Equipment name

Modifications:

XXX <sub>2</sub> Spectron -601-Exd, Spectron -801-Exd, Spectron -804-Exd, Spectron -901-Exd

XXX <sub>3</sub> Type of protection of the flame retardant enclosure Exd

Body material:

X<sub>4</sub> A - aluminum alloy;  
H - stainless steel;  
M - galvanized carbon steel.

The cylindrical flameproof enclosure of the Spectron Flame Detector consists of a housing and two covers secured with screws. Inside the flameproof enclosure there is an electronic board and terminals for external connections. The board is installed inside the case and secured with screws. The front cover is fastened to the body with screws, light-transmitting elements are installed on the front cover from the inside, Spectron 601 has two, and Spectron 804, Spectron 901 - four light-transmitting elements. The back cover is fixed to the body with screws and provides a flameproof connection, there are two threaded holes on the back cover for attaching cable glands. Unused cable entry holes must be closed with Ex blanking plugs. Self-loosening of the screws securing the front and rear covers is prevented by the use of spring washers. Self-loosening of threaded connections of cable glands is prevented by using locknuts or sealing compound.

There are seals between the housing and the covers, providing IP 68 protection against external influences over the entire temperature range.

Table 1 - Technical characteristics of flame detectors Spectron.

| Name of indicator, unit of measurement           | Value              |
|--------------------------------------------------|--------------------|
| Supply voltage, V (direct current)               | 9..32              |
| Ambient temperature range, °C                    | From -55 to +85 °C |
| Enclosure protection according to IEC 60529:2013 | IP68               |

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For a more detailed description of the design, please refer to the respective instruction manual.

#### [ 16 ] Test Report

The examination and test results are recorded in confidential Evaluation Report number 017/2022 from 01.02.2022

#### [ 17 ] Specific conditions of use

Missing

#### [ 18 ] Essential health and safety requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information: None.

#### [ 19 ] Drawings and Documents

The documents are listed in the Evaluation report number 017/2022 from 01.02.2022

| Title Technical Documents                                                                                                                                       | Decimal number             | Date    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------|
| Operation Manual<br>UV/IR MULTI RATIO FLAME-FIRE DETECTOR<br>IP329/330-5-1 "Spectron"<br>"Spectron-601-Exd-A"<br>"Spectron-601-Exd-M"<br>"Spectron-601-Exd-N"   | SPEC. 420529.000.001-31 OM | 2022    |
| Safety drawing<br>Spectron-601-Exd-A                                                                                                                            | SPEC.425248.660.000-01 SD  | 04.2017 |
| Assembly drawing<br>Spectron-601-Exd-A-V(-IP),<br>Spefitron-601-Exd-A-V(-IP)-HART,<br>Spectron-601-Exd-A(-HART),<br>Spectron-501-Exd-A                          | SPEC.425248.660.000-02 AD  | 04.2018 |
| Specification<br>Spectron-601-Exd-A-V(-IP),<br>Spefitron-601-Exd-A-V(-IP)-HART,<br>Spectron-601-Exd-A(-HART),<br>Spectron-501-Exd-A                             | SPEC.425248.660.000-02 SP  | 08.2018 |
| Safety drawing<br>Spectron-601-Exd-N(M)                                                                                                                         | SPEC.425248.660.000-02 SD  | 04.2017 |
| Assembly drawing<br>Spectron-601-Exd-N(I), Spectron-601-Exd-N-V(-IP), Spectron-601-Exd-N-V(-IP)-HART,<br>Spectron-601-Exd-N(M)(-HART),<br>Spectron-501-Exd-N(M) | SPEC.425248.620.000 AD     | 10.2019 |
| Specification<br>Spectron-601-Exd-N(M), Spectron-601-Exd-N-V(-IP), Spectron-601-Exd-N-V(-IP)-HART, Spectron-601-Exd-N(M)(-HART), Spectron-501-Exd-N(M)          | SPEC.425248.620.000 SP     | 05.2019 |
| Operation Manual<br>FIRE ALARM FLAME DETECTOR<br>IP330-2-1 "Spectron"<br>"Spectron-801-Exd-A"<br>"Spectron-801-Exd-M"                                           | SPEC.420529.000.001-32 OM  | 2022    |

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|                                                                                                                                                                                      |                           |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------|
| Spectron-801-Exd-N                                                                                                                                                                   |                           |         |
| Assembly drawing<br>Spectron-801-Exd-A,<br>Spectron-801-Exd-A-HART,<br>Spectron-701-Exd-A                                                                                            | SPEC.425241.400.000-01 AD | 07.2019 |
| Specification<br>Spectron-801-Exd-A,<br>Spectron-801-Exd-A-HART,<br>Spectron-701-Exd-A                                                                                               | SPEC.425241.400.000-01 SP | 04.2018 |
| Operation Manual<br>FIRE ALARM<br>FLAME DETECTOR<br>IP330-3-1 "Spectron"<br>"Spectron-804-Exd-A"<br>"Spectron-804-Exd-M"<br>"Spectron-804-Exd-N"                                     | SPEC.420529.000.001-33 OM | 01.2022 |
| Operation Manual<br>FIRE ALARM FLAME DETECTOR<br>IP 329/330-6-1 "Spectron"<br>"Spectron-901-Exd-A"<br>"Spectron-901-Exd-M"<br>"Spectron-901-Exd-N"                                   | SPEC.420529.000.001-34 OM | 01.2022 |
| Assembly Drawing<br>Spectron-804-Exd-A-HART, Spectron-804-Exd-A<br>Spectron-901-Exd-A-V(-IP)-HART,<br>Spectron-901-Exd-A-HART, Spectron-901-Exd-A,<br>Spectron-804-Exd-A-V(-IP)-HART | SPEC.425241.910.000 AD    | 09.2021 |
| Specification<br>Spectron-804-Exd-A-HART, Spectron-804-Exd-A,<br>Spectron-901-Exd-A-B(-IP)-HART,<br>Spectron-901-Exd-A-HART, Spectron-901-Exd-A,<br>Spectron-804-Exd-A-B(-IP)-HART   | SPEC.425241.910.000 SP    | 09.2021 |
| Safety drawing<br>Spectron-801-Exd-A,<br>Spectron-804-Exd-A,<br>Spectron-901-Exd-A                                                                                                   | SPEC.425241.400.000-01 SD | 09.2019 |
| Assembly Drawing<br>Spectron-801-Exd-N(M),<br>Spectron-801-Exd-N(M)-HART,<br>Spectron-701-Exd-N(M)                                                                                   | SPEC.425241.400.000-02 AD | 05.2019 |
| Specification<br>Spectron-801-Exd-N(M)<br>Spectron-801-Exd-N(M)-HART,<br>Spectron-701-Exd-N(M)                                                                                       | SPEC.425241.400.000-02 SP | 05.2019 |
| Assembly Drawing<br>Spectron-804-Exd-M/N<br>Spectron-901-EXD-M/N                                                                                                                     | SPEC.425241.800.000 AD    | 09.2021 |
| Specification<br>Spectron-804-Exd-M/N<br>Spectron-901-EXD-M/N                                                                                                                        | SPEC.425241.800.000 SP    | 09.2021 |
| Safety drawing<br>Spectron-801-Exd-N(M),<br>Spectron-804-Exd-N(M),<br>Spectron-901-Exd-N(M)                                                                                          | SPEC.425241.400.000-02 SD | 09.2019 |

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