Translation

(1) EC-Type Examination Certificate

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

(3) No. of EC-Type Examination Certificate: **BVS 12 ATEX G 001 X**

(4) Equipment: **Gas Transmitter type GTR 210**

(5) Manufacturer: **ADOS GmbH**

(6) Address: **52078 Aachen, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test report PFG-no. 41300212P.

(9) The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are assured by application of:

EN 60079-29-1:2007
EN 50271:2010

This EC-type examination certificate covers the measuring function for alkanes from methane to nonane in the measuring range 0 - 100 % LEL.
This EC-type examination certificate covers equipment with software version 1.09.

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

(11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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

II 2 G Ex d e ia mb IIC T4 Gb

II (2) G

Type GTR 210 Ex

Types
GTR 210 Standard
GTR 210 Comfort

DEKRA EXAM GmbH
Bochum, dated 6. December 2012

Signed: Müller

Certification body

Signed: Kiesewetter

Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

(13) Appendix to

(14) **EC-Type Examination Certificate**
BVS 12 ATEX G 001 X

(15) 15.1 Subject and type

Gas Detector type GTR 210 with versions GTR 210 Ex, GTR 210 Standard and GTR 210 Comfort

15.2 Description

The gas detection apparatus GTR 210 is a fixed device for the measurement of flammable gases. The measurement is done with a catalytic combustion sensor. The versions GTR 210 Standard and GTR 210 Comfort are not suitable for operation in potentially explosive atmospheres.
A 3-wire 4-20 mA interface serves as power supply and for transmission of the measured value for the versions GTR 210 Ex and GTR 210 Standard.
The version GTR 210 Comfort is mains powered with 230 V AC. In addition, a 4-20 mA current output and four galvanic isolated change-over contacts for signalling faults and there alarms are available.

15.3 Parameters

See EC-type examination certificate DEKRA 11ATEX0257 X

(16) Test and assessment report

PFG-no. 41300212P as of 06/12/2012
- EC-type examination certificate DEKRA 11ATEX0257 X as of 13/04/2012

(17) Special conditions for safe use

- see EC-type examination certificate DEKRA 11ATEX0257 X
- At air velocities greater than 4 m/s, measured values in gas can be increased exceeding the tolerances of EN 60079-29-1.
- If vibrations cannot be excluded, the (nc)-contacts of the alarm relays of the GTR 210 Comfort shall not be used for safety-relevant purposes.
- If the indication "Sensor overcharged" is observed zero and span of the equipment has to be calibrated before further use. The calibration should be checked regularly (e.g. every day) until no significant deviations are observed anymore.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 6. December 2012
PFG-Kie/Ne

Certification body

Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

Translation

(1) 1. Supplement to the EC-Type Examination Certificate

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

(3) No. of EC-Type Examination Certificate: **BVS 12 ATEX G 001 X**

(4) Equipment: **Gas Transmitter type GTR 210**

(5) Manufacturer: **ADOS GmbH**

(6) Address: **52078 Aachen, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test report PFG-no. 41300212P NI.

(9) The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are assured by application of:

EN 60079-29-1:2007
EN 50271:2010

This EC-type examination certificate covers for the variant IP54 the measuring function for alkanes from methane to nonane in the measuring range 0 - 100 % LEL.
This EC-type examination certificate covers for the variant IP66 the measuring function for alkanes from methane to hexane in the measuring range 0 - 100 % LEL.
This EC-type examination certificate covers equipment with software version 1.12.

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

(11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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

⟨Ex⟩ **II 2 G Ex d e ia mb IIC T4 Gb**	**Type GTR 210 Ex**
⟨Ex⟩ **II (2) G**	**Types** **GTR 210 Standard** **GTR 210 Comfort**

DEKRA EXAM GmbH
Bochum, dated 15. October 2013

Signed: Müller	Signed: Kiesewetter
Certification body	Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

(13) Appendix to

(14) **1. Supplement to the EC-Type Examination Certificate**
BVS 12 ATEX G 001 X

(15) 15.1 Subject and type

Gas transmitter type GTR 210 with versions GTR 210 Ex, GTR 210 Standard and GTR 210 Comfort, variants IP54 and IP66

15.2 Description

This supplement to the EC-type examination certificate concerns modifications of the software and the variant IP66. The variant certified previously will be denoted as variant IP54 in the future.
The gas detection apparatus GTR 210 is a fixed device for the measurement of flammable gases. The measurement is done with a catalytic combustion sensor. The versions GTR 210 Standard and GTR 210 Comfort are not suitable for operation in potentially explosive atmospheres.
A 3-wire 4-20 mA interface serves as power supply and for transmission of the measured value for the versions GTR 210 Ex and GTR 210 Standard.
The version GTR 210 Comfort is mains powered with 230 V AC. In addition, a 4-20 mA current output and four galvanic isolated change-over contacts for signalling faults and there alarms are available.

15.3 Parameters

- See EC-type examination certificate DEKRA 11ATEX0257 X
- Ambient temperature ranges:
  - Variant IP54: -25 °C to +55 °C
  - Variant IP66: -25 °C to +60 °C

(16) Test and assessment report

PFG-no. 41300212P NI as of 15/10/2013
- EC-type examination certificate DEKRA 11ATEX0257 X as of 15/05/2013

(17) Special conditions for safe use

- see EC-type examination certificate DEKRA 11ATEX0257 X
- At air velocities greater than 4 m/s, measured values in gas can be increased exceeding the tolerances of EN 60079-29-1.
- If vibrations cannot be excluded, the (nc)-contacts of the alarm relays of the GTR 210 Comfort shall not be used for safety-relevant purposes.
- If the indication "Sensor overcharged" is observed zero and span of the equipment has to be calibrated before further use. The calibration should be checked regularly (e.g. every day) until no significant deviations are observed anymore.
- The time of response t_{90} for propane is about 8 s higher than required by EN 60079-29-1 for the variant IP66. This has to be taken into account in the settings of the alarm set points.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 15. October 2013
PFG-Kie/Ne

Certification body

Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

Translation

1 # EU-Type Examination Certificate Supplement 02

Change to Directive 2014/34/EU

2 **Device with a measuring function for explosion protection Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 12 ATEX G 001 X**

4 Product: **Gas Transmitter type GTR 210**

5 Manufacturer: **ADOS GmbH**

6 Address: **Trierer Str. 23-25, 52078 Aachen, Germany**

7 This supplementary certificate extends EC-Type Examination Certificate No. BVS 12 ATEX G 001 X to apply to products designed and constructed in accordance with the specification set out in the Annex of the said certificate but having any variations specified in the Annex attached to this certificate and the documents therein referred to.

8 DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the 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 the confidential test report PFG-no. 41300212P NII.

9 Compliance with the Essential Health and Safety Requirements with respect to the measuring function for explosion protection has been assured by compliance with:

EN 60079-29-1:2007
EN 50271:2010

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the annex to this certificate.

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

DAkkS Deutsche Akkreditierungsstelle D-ZE-11069-03-00

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

12 The marking of the product shall include the following:

II 2 G Ex d e ia mb IIC T4 Gb **type GTR 210 Ex**

II (2) G **types**
GTR 210 Standard
GTR 210 Comfort

DEKRA EXAM GmbH
Bochum, 2016-10-06

Signed: Siebrecht
Certifier

Signed: Kiesewetter
Approver

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

13 **Annex**

14 **EU-Type Examination Certificate**

BVS 12 ATEX G 001 X
Supplement 02

15 **Product description**

15.1 **Subject and type**

Gas transmitter type GTR 210 with versions GTR 210 Ex, GTR 210 Standard and GTR 210 Comfort, variants IP54 and IP66

15.2 **Description**

With this supplement the certificate is changed to Directive 2014/34/EU.
(Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

Reason for the supplement:
Modifications of the hardware and software and measurement of further gases and vapours

Description of Product
The transmitter GTR 210 is a fixed device for the measurement of flammable gases mixed with air. The measurement is done with a catalytic combustion sensor. The versions GTR 210 Standard and GTR 210 Comfort are not suitable for operation in potentially explosive atmospheres.
A 3-wire 4-20 mA interface serves as power supply and for transmission of the measured value for the versions GTR 210 Ex and GTR 210 Standard.
The version GTR 210 Comfort is mains powered with 230 V AC. In addition, a 4-20 mA current output and four galvanic isolated change-over contacts for signalling faults and three alarms are available.

15.3 **Parameters**

- See EC-type examination certificate DEKRA 11ATEX0257 X
- Ambient temperature ranges:
  - Variant IP54: -25 °C to +55 °C
  - Variant IP66: -25 °C to +60 °C

DAkkS Deutsche Akkreditierungsstelle D-ZE-11089-03-00

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telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

15.4 **Measuring function for explosion protection**

This EU-type examination certificate covers:

- transmitters GTR 210 Ex, GTR 210 Standard and GTR 210 Comfort, each in variants IP54 and IP66, with software version 2.07
- for variant IP54 the measurement of n-alkanes from methane to n-nonane, hydrogen, ethanol and ammonia mixed with air with sensor type VQ in the measuring range 0 % LEL to 100 % LEL
- for variant IP66 the measurement of n-alkanes from methane to n-hexane, hydrogen, ethanol and ammonia mixed with air with sensor type VQ in the measuring range 0 % LEL to 100 % LEL
- use of the following outputs for safety relevant purposes:
  - display
  - 4-20 mA output for measured values
  - relays (version GTR 210 Comfort only)
- use of the following accessories:
  - calibration adapter GTR210AL
  - flow through adapter stainless steel

The EU-type examination includes the following deviations from the operating conditions required by EN 60079-29-1:
- Extended range of temperature at operation: -25 °C to +60 °C (variant IP66 only)
- Extended range of humidity of the measured gas: 0 % RH to 95 % RH

16 **Test report**

PFG-no. 41300212P NII of 2016-10-06

17 **Special Conditions for Use**

- see EC-type examination certificate DEKRA 11ATEX0257 X
- At air velocities greater than 4 m/s, measured values in gas can be increased exceeding the tolerances of EN 60079-29-1.
- If vibrations cannot be excluded, the (nc)-contacts of the alarm relays of the GTR 210 Comfort shall not be used for safety-relevant purposes.
- If the indication "Sensor overcharged" is observed zero and span of the transmitter have to be adjusted before further use. The transmitter shall be operated in clean air for a minimum of 1 hour before this adjustment is performed. The calibration should be checked regularly (e.g. every day) until no significant deviations are observed anymore.
- The time of response t_{90} for propane is about 8 s higher than required by EN 60079-29-1 for the variant IP66. This has to be taken into account in the settings of the alarm set points.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential test report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
Bochum, dated 2016-10-06

Certifier

Approver

DAkkS Deutsche Akkreditierungsstelle D-ZE-12069-03-00

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

Translation

1 EU-Type Examination Certificate Supplement 03

2 **Device with a measuring function for explosion protection Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 12 ATEX G 001 X**

4 Product: **Gas Transmitter type GTR 210**

5 Manufacturer: **ADOS GmbH**

6 Address: **Trierer Str. 23-25, 52078 Aachen, Germany**

7 This supplementary certificate extends EU-Type Examination Certificate No. BVS 12 ATEX G 001 X to apply to products designed and constructed in accordance with the specification set out in the Annex of the said certificate but having any variations specified in the Annex attached to this certificate and the documents therein referred to.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the 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 the confidential test report PFG-no. 41300212P NIII.

9 The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are assured in consideration of:

EN 50104:2010
EN 50271:2010

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. 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 product shall include the following:

Ex II 2 G Ex db e ia mb IIC T4 Gb GTR 210 Ex

DEKRA Testing and Certification GmbH
Bochum, 2019-10-08

Signed: Kilisch
Managing Director

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 12 ATEX G 001 X
Supplement 03

15 **Product description**

15.1 **Subject and type**

Gas transmitter type GTR 210 with versions GTR 210 Ex, GTR 210 Standard and GTR 210 Comfort, variants IP54 and IP66

15.2 **Description**

Reason for the supplement:
Test of version GTR 210 Ex, variant IP66, for the measurement of oxygen

Description of the Variation to the Product:
The transmitter type GTR 210 version GTR 210 Ex, variant IP66, is a fixed device for the measurement of oxygen. The measurement is done with an electrochemical sensor. A 3-wire 4-20 mA interface serves as power supply and for transmission of the measured value.

15.3 **Parameters**

- See EC-type examination certificate DEKRA 11ATEX0257 X
- Ambient temperature range:
  - Variant IP66: -25 °C to +60 °C

15.4 **Measuring function for explosion protection**

This EU-type examination certificate covers:

- transmitter type GTR 210 version GTR 210 Ex, variant IP66, with software version 3.06
- measurement of oxygen (measurement of inertisation) in the measuring range 0 - 25 %(v/v) with sensor type TOX O2.
- use of the following outputs for safety relevant purposes:
  - display
  - 4-20 mA output for measured values
- use of the following accessories:
  - calibration adapter GTR 210 aluminium (part no. 6086D)
  - flow through adapter GTR 210 stainless steel (part no. 5408D)

The EU-type examination includes the following deviations from the operating conditions required by EN 50104:
- Extended range for the unpowered storage test: -25 °C to +60 °C
- Extended range of temperature at operation: -25 °C to +60 °C
- Extended range of humidity of the measured gas: 15 % RH to 95 % RH

16 **Test report**

PFG-no. 41300212P NIII of 2019-10-08

17 **Special Conditions for Use**

- see EC-type examination certificate DEKRA 11ATEX0257 X
- Configure Alarm A1 and Alarm A2 as latching. If both alarm thresholds have the same direction (activation when the oxygen concentration is increasing or decreasing), the first alarm may be configured as Non Latching.

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Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential test report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, dated 2019-10-08

Managing Director

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

Translation

Type Examination Certificate

- Gas detectors -

PFG 19 G 005 X

Equipment: **Gas Transmitter type GTR 210**

Manufacturer: **ADOS GmbH**

Address: **Trierer Str. 23-25, 52078 Aachen, Germany**

The certification body of DEKRA Testing and Certification GmbH certifies that this equipment has been found to comply with the requirements of the standards

EN 50104:2010
EN 50271:2010

with regard to the measuring function for oxygen (measurement of oxygen deficiency and enrichment) in the measuring range 0 - 25 %(v/v),

On the basis of DIN EN ISO/IEC 17065, this certification includes a type examination. The examination and test results and the design of the equipment are recorded in the test report PFG-Nr. 41300212P NIII.

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

The manufacturer declares the conformity of the manufactured products with the certified design by marking them with the number of this type examination certificate.

DEKRA Testing and Certification GmbH

Bochum, dated 2019-10-08

Signed: Kilisch

Managing Director

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

Translation

1 # EU-Type Examination Certificate Supplement 04

2 **Device with a measuring function for explosion protection Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 12 ATEX G 001 X**

4 Product: **Gas Transmitter type GTR 210 Ex**

5 Manufacturer: **ADOS GmbH**

6 Address: **Trierer Str. 23-25, 52078 Aachen, Germany**

7 This supplementary certificate extends EU-Type Examination Certificate No. BVS 12 ATEX G 001 X to apply to products designed and constructed in accordance with the specification set out in the Annex of the said certificate but having any variations specified in the Annex attached to this certificate and the documents therein referred to.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the 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 the confidential test report PFG-no. 41300212P NIV.

9 The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are assured in consideration of:

EN 60079-29-1:2016
EN 50104:2010
EN 50271:2010

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. 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 product shall include the following:

see DEKRA 11ATEX0257 X

DEKRA Testing and Certification GmbH
Bochum, 2020-05-19

Signed: Kilisch
Managing Director

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 12 ATEX G 001 X
Supplement 04

15 **Product description**

15.1 **Subject and type**

Gas transmitter type GTR 210 version GTR 210 Ex, variants IP54 and IP66

15.2 **Description**

Reason for the supplement:
Removal of the versions GTR 210 Standard and GTR 210 Comfort from the certificate
Modifications of hardware and software
Re-testing according to EN 60079-29-1 (sensor type VQ)
New sensor type IR flammable

Description of Product
The transmitter type GTR 210 version GTR 210 Ex, variant IP66, is a fixed device for the measurement of flammable gases mixed with air or of oxygen. The measurement of flammable gases is done with a catalytic combustion sensor or an infrared sensor. The measurement of oxygen is done with an electrochemical sensor. A 3-wire 4-20 mA interface serves as power supply and for transmission of the measured value.

15.3 **Parameters**

- See EC-type examination certificate DEKRA 11ATEX0257 X
- Ambient temperature ranges:
  - Variant IP54: -25 °C to +55 °C
  - Variant IP66: -25 °C to +60 °C

15.4 **Measuring function for explosion protection**

This EU-type examination certificate covers:

- transmitter type GTR 210 version GTR 210 Ex, variants IP54 and IP66, with software version 3.08
- for variant IP54 the measurement of n-alkanes from methane to n-hexane, of hydrogen and ethanol mixed with air with sensor type VQ in the measuring range 0 % LEL to 100 % LEL
- for variant IP66 the measurement of n-alkanes from methane to n-hexane, of hydrogen and ethanol mixed with air with sensor type VQ in the measuring range 0 % LEL to 100 % LEL
- for variant IP66 the measurement of methane and propane mixed with air with sensor type IR flammable in the measuring range 0 % LEL to 100 % LEL
- for variant IP66 the measurement of oxygen (measurement of inertisation) in the measuring range 0 - 25 %(v/v) with sensor type TOX O2.
- use of the following outputs for safety relevant purposes:
  - display
  - 4-20 mA output for measured values
- use of the following accessories:
  - calibration adapter GTR 210 aluminium (part no. 6086D)
  - flow through adapter GTR 210 stainless steel (part no. 5408D)

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
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The EU-type examination includes the following deviations from the operating conditions required by EN 60079-29-1:

- Extended range of temperature at operation: -25 °C to +60 °C
- Extended range of humidity of the measured gas: 0 % RH to 90 % RH

The EU-type examination includes the following deviations from the operating conditions required by EN 50104:

- Extended range for the unpowered storage test: -25 °C to +60 °C
- Extended range of temperature at operation: -25 °C to +60 °C
- Extended range of humidity of the measured gas: 15 % RH to 95 % RH

16 Test report

PFG-no. 41300212P of 2020-05-19

17 Special Conditions for Use

- see EC-type examination certificate DEKRA 11ATEX0257 X
- Configure the upper alarm as latching when measuring flammable gases.
- Configure both alarms as latching when measuring oxygen. If both alarms have the same direction (activation when the oxygen concentration is increasing or decreasing), the first alarm may be configured as non latching.
- Do not set the alarm set points above 50 % LEL when measuring ethanol.
- The times of response t_{50} and t_{90} for propane are higher than required by EN 60079-29-1 when using the sensor type IR flammable. This has to be taken into account in the settings of the alarm set points.
- If the indication "Sensor overcharged" is observed (sensor type VQ), zero and span of the transmitter have to be adjusted before further use. The transmitter shall be operated in clean air for a minimum of 1 hour before this adjustment is performed. The calibration should be checked regularly (e.g. every day) until no significant deviations are observed anymore.

18 Essential Health and Safety Requirements

The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are covered by the standards listed under item 9.

19 Drawings and Documents

Drawings and documents are listed in the confidential test report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, dated 2020-05-19

Managing Director

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
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Translation

1 EU-Type Examination Certificate Supplement 05

2 **Device with a measuring function for explosion protection Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 12 ATEX G 001 X**

4 Product: **Gas Transmitter type GTR 210 Ex**

5 Manufacturer: **ADOS GmbH**

6 Address: **Trierer Str. 23-25, 52078 Aachen, Germany**

7 This supplementary certificate extends EU-Type Examination Certificate No. BVS 12 ATEX G 001 X to apply to products designed and constructed in accordance with the specification set out in the Annex of the said certificate but having any variations specified in the Annex attached to this certificate and the documents therein referred to.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the 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 the confidential test report PFG-no. 41300212P NV.

9 The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are assured in consideration of:

EN 60079-29-1:2016
EN 50104:2019
EN 50271:2018

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. 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 product shall include the following:

see DEKRA 11ATEX0257 X

DEKRA Testing and Certification GmbH
Bochum, 2022-01-10

Signed: Kilisch
Managing Director

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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 12 ATEX G 001 X
Supplement 05

15 **Product description**

15.1 **Subject and type**

Gas transmitter type GTR 210 version GTR 210 Ex, variants IP54 and IP66

15.2 **Description**

Reason for the supplement:
Software modification and retesting according to EN 50104:2019 and EN 50271:2018

Description of Product
The transmitter type GTR 210 version GTR 210 Ex, variant IP66, is a fixed device for the measurement of flammable gases mixed with air or of oxygen. The measurement of flammable gases is done with a catalytic combustion sensor or an infrared sensor. The measurement of oxygen is done with an electrochemical sensor. A 3-wire 4-20 mA interface serves as power supply and for transmission of the measured value.

15.3 **Parameters**

- See EU-type examination certificate DEKRA 11ATEX0257 X
- Ambient temperature ranges:
  - Variant IP54: -25 °C to +55 °C
  - Variant IP66: -25 °C to +60 °C

15.4 **Measuring function for explosion protection**

This EU-type examination certificate covers:

- transmitter type GTR 210 version GTR 210 Ex, variants IP54 and IP66, with software version 3.10
- for variant IP54 the measurement of n-alkanes from methane to n-hexane, of hydrogen and ethanol mixed with air with sensor type VQ in the measuring range 0 % LEL to 100 % LEL
- for variant IP66 the measurement of n-alkanes from methane to n-hexane, of hydrogen and ethanol mixed with air with sensor type VQ in the measuring range 0 % LEL to 100 % LEL
- for variant IP66 the measurement of methane and propane mixed with air with sensor type IR flammable in the measuring range 0 % LEL to 100 % LEL
- for variant IP66 the measurement of oxygen (measurement of inertisation) in the measuring range 0 - 25 %(v/v) with sensor type TOX O2.
- use of the following outputs for safety relevant purposes:
  - display
  - 4-20 mA output for measured values
- use of the following accessories:
  - calibration adapter GTR 210 aluminium (part no. 6087D)
  - flow through adapter GTR 210 stainless steel (part no. 5408D)

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The EU-type examination includes the following deviations from the operating conditions required by EN 60079-29-1:

- Extended range of temperature at operation: -25 °C to +60 °C
- Extended range of humidity of the measured gas: 0 % RH to 90 % RH

The EU-type examination includes the following deviations from the operating conditions required by EN 50104:

- Extended range for the unpowered storage test: -25 °C to +60 °C
- Extended range of temperature at operation: -25 °C to +60 °C
- Extended range of humidity of the measured gas: 15 % RH to 95 % RH

16 Test report

PFG-no. 41300212P NV of 2022-01-10

17 Special Conditions for Use

- see EU-type examination certificate DEKRA 11ATEX0257 X
- Configure the upper alarm as latching when measuring flammable gases.
- Configure both alarms as latching when measuring oxygen. If both alarms have the same direction (activation when the oxygen concentration is increasing or decreasing), the first alarm may be configured as non-latching.
- Do not set the alarm set points above 50 % LEL when measuring ethanol.
- The times of response t_{50} and t_{90} for propane are higher than required by EN 60079-29-1 when using the sensor type IR flammable. This has to be taken into account in the settings of the alarm set points.
- If the indication "Sensor overcharged" is observed (sensor type VQ), zero and span of the transmitter have to be adjusted before further use. The transmitter shall be operated in clean air for a minimum of 1 hour before this adjustment is performed. The calibration should be checked regularly (e.g. every day) until no significant deviations are observed anymore.

18 Essential Health and Safety Requirements

The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are covered by the standards listed under item 9.

19 Drawings and Documents

Drawings and documents are listed in the confidential test report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, dated 2022-01-10

Managing Director

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Appendix to

Type Examination Certificate

PFG 19 G 005 X

Description of the gas detector

The transmitter type GTR 210 version GTR 210 Ex, variant IP66, is a fixed device for the measurement of oxygen. The measurement is done with an electrochemical sensor. A 3-wire 4-20 mA interface serves as power supply and for transmission of the measured value.

Type of protection

see DEKRA 11ATEX0257 X

Special conditions for use

- Configure Alarm A1 and Alarm A2 as latching. If both alarm thresholds have the same direction (activation when the oxygen concentration is increasing or decreasing), the first alarm may be configured as Non Latching.

Additional Information

- The measuring function of the equipment for oxygen (measurement of inertisation) and the versions of the equipment for flammable gases for according to directive 2014/34/EU is subject of the EU-type examination certificate BVS 12 ATEX G 001 X.
- This type examination certificate covers:
  - transmitter type GTR 210 version GTR 210 Ex, variant IP66, with software version 3.06
  - the measurement of oxygen (measurement of oxygen deficiency and enrichment) in the measuring range 0 - 25 %(v/v) with sensor type TOX O2
  - use of the following outputs for safety relevant purposes:
    - display
    - 4-20 mA output for measured values
  - use of the following accessories:
    - calibration adapter GTR 210 aluminium (part no. 6086D)
    - flow through adapter GTR 210 stainless steel (part no. 5408D)
- The type examination includes the following deviations from the operating conditions required by EN 50104:
  - Extended range for the unpowered storage test: -25 °C to +60 °C
  - Extended range of temperature at operation: -25 °C to +60 °C
  - Extended range of humidity of the measured gas: 15 % RH to 95 % RH

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DEKRA Testing and Certification GmbH
Bochum, 2019-10-08

Managing Director

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Translation

1st Supplement

to the Type Examination Certificate

- Gas detectors -

PFG 19 G 005 X

Equipment: **Gas Transmitter type GTR 210**

Manufacturer: **ADOS GmbH**

Address: **Trierer Str. 23-25, 52078 Aachen, Germany**

The certification body of DEKRA Testing and Certification GmbH certifies that this equipment has been found to comply with the requirements of the standards

EN 50104:2019
EN 50271:2018

with regard to the measuring function for oxygen (measurement of oxygen deficiency and enrichment) in the measuring range 0 - 25 %(v/v).

On the basis of DIN EN ISO/IEC 17065, this certification includes a type examination. The examination and test results and the design of the equipment are recorded in the test report PFG-Nr. 41300212P NV.

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

The manufacturer declares the conformity of the manufactured products with the certified design by marking them with the number of this type examination certificate.

DEKRA Testing and Certification GmbH

Bochum, dated 2022-01-10

Signed: Kilisch

Managing Director

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Appendix to

1st Supplement to the Type Examination Certificate
PFG 19 G 005 X

Description of the gas detector

The transmitter type GTR 210 version GTR 210 Ex, variant IP66, is a fixed device for the measurement of oxygen. The measurement is done with an electrochemical sensor. A 3-wire 4-20 mA interface serves as power supply and for transmission of the measured value.

Reason for the supplement:

Software modification and retesting according to EN 50104:2019 and EN 50271:2018

Type of protection

see DEKRA 11ATEX0257 X

Special conditions for use

- Configure Alarm A1 and Alarm A2 as latching. If both alarm thresholds have the same direction (activation when the oxygen concentration is increasing or decreasing), the first alarm may be configured as non-latching.

Additional Information

- The measuring function of the equipment for oxygen (measurement of inertisation) and the versions of the equipment for flammable gases for according to directive 2014/34/EU is subject of the EU-type examination certificate BVS 12 ATEX G 001 X.
- This type examination certificate covers:
  - transmitter type GTR 210 version GTR 210 Ex, variant IP66, with software version 3.10
  - the measurement of oxygen (measurement of oxygen deficiency and enrichment) in the measuring range 0 - 25 %(v/v) with sensor type TOX O2
  - use of the following outputs for safety relevant purposes:
    - display
    - 4-20 mA output for measured values
  - use of the following accessories:
    - calibration adapter GTR 210 aluminium (part no. 6087D)
    - flow through adapter GTR 210 stainless steel (part no. 5408D)
- The type examination includes the following deviations from the operating conditions required by EN 50104:
  - Extended range for the unpowered storage test: -25 °C to +60 °C
  - Extended range of temperature at operation: -25 °C to +60 °C
- Extended range of humidity of the measured gas: 15 % RH to 95 % RH

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DEKRA Testing and Certification GmbH
Bochum, 2022-01-10

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