



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx TUN 21.0024X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2022-04-04
Applicant: **VEGA Grieshaber KG**
Am Hohenstein 113
Schiltach 77761
Germany
Equipment: **VEGAPULS Air 23 resp. VEGAPULS Air 42**
Optional accessory:
Type of Protection: **"ec"; "tb" resp. "tc"**
Marking: Ex ec IIC T6...T1 Gc
Ex tb IIIC T135°C Db
Ex tc IIIC T135°C Dc

Approved for issue on behalf of the IECEx
Certification Body:

Thomas Heinen

Position:

Deputy Head of the IECEx Certification Body

Signature:
(for printed version)

Date:
(for printed version)

Digital
unterscriben von
Heinen Thomas
Datum: 2022.04.04
08:58:02 +02'00'



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3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

TÜV NORD CERT GmbH
Hanover Office
TÜV NORD CERT, 1, 30519 Hannover
Germany





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Date of issue: 2022-04-04

Issue No: 0

Manufacturer: **VEGA Grieshaber KG**
Am Hohenstein 113
Schiltach 77761
Germany

Manufacturing locations: **VEGA Grieshaber KG**
Am Hohenstein 113
Schiltach 77761
Germany

**India VEGA India Level and
Pressure Measurement Pvt. Ltd.**
Plot No. 1, Gat No. 181
Village - Phulgaon, Tal. Haveli
Pune 412216
India

VEGA Americas, Inc
4241 Allendorf Drive
Cincinnati, Ohio 45209
United States of America

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[DE/TUN/ExTR21.0031/00](#)

Quality Assessment Report:

[DE/TUN/QAR06.0002/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Description:

The Autarkic Radar Sensors VEGAPULS Air 23, 42 are used for non-contact level measurement of liquids and solids.

VEGAPULS Air 23, 42 emit a radar signal in the GHz range via their antennas. The transmitted signal is reflected by the medium and received by the antenna as an echo. The frequency difference between the transmitted and the received signal is proportional to the distance and depends on the level. The measured value is transmitted wirelessly via various radio technologies.

Type code:

VEGAPULS Air 23 resp. VEGAPULS Air 42

Electrical and thermal data:

See Attachment to IECEx TUN 21.0024X issue No.0

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The Autarkic Radar Sensor type VEGAPULS Air 23 resp. VEGAPULS Air 42 has to be installed and used in such a way, that electrostatic charging from operation, maintenance and cleaning is excluded.

For the uses in potentially explosive dust atmospheres process-related electrostatic charges, e.g. due to passing media have to be excluded.

2. For EPL Gc applications, the "Memory Stick" has only to be operated outside the hazardous area at the USB port.

The connection and disconnection of the SIM card as well as the changing of the power supply cells including their connectors has only be carried out outside the hazardous area.

3. Only permissible cells according to the manufacturer's operating instructions are allowed to be used.

4. The filter element on the housing wall of the VEGAPULS Air 42 variant is only certified as a part of this variant.

5. The permissible ambient temperature range is given in the operating instructions.

Annex:

[Attachment to IECEx TUN 21.0024X issue No.0 .pdf](#)

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Attachment to IECEx TUN 21.0024X issue No.: 0

General product information:

Description:

The Autarkic Radar Sensors VEGAPULS Air 23, 42 are used for non-contact level measurement of liquids and solids.

VEGAPULS Air 23, 42 emit a radar signal in the GHz range via their antennas. The transmitted signal is reflected by the medium and received by the antenna as an echo. The frequency difference between the transmitted and the received signal is proportional to the distance and depends on the level. The measured value is transmitted wirelessly via various radio technologies.

Type code:

VEGAPULS Air 23 resp. VEGAPULS Air 42

Electrical data:

Supply voltage
(Internal primary cells)

VEGAPULS Air 23:

$U_n = 3.6 \text{ V d.c.}$

Supply with 2x 3.6 V / 3.6 Ah Li-SOCL2- cells

VEGAPULS Air 42:

$U_n = 3.6 \text{ V d.c.}$

Supply with 5x 3.6 V / 3.6 Ah Li-SOCL2- cells

Thermal data:

Permissible ambient temperature range during operation : $-20 \text{ °C} \leq T_a \leq +60 \text{ °C}$

Details of change (applicable only when revising an existing ExTR package):

Proof of conformity of the Autarkic Radar Sensor type VEGAPULS Air 23 resp. VEGAPULS Air 42 to the current versions of the standards IEC 60079-0:2017, IEC 60079-7:2017 and IEC 60079-31:2013.

Specific Conditions of Use:

1. The Autarkic Radar Sensor type VEGAPULS Air 23 resp. VEGAPULS Air 42 has to be installed and used in such a way, that electrostatic charging from operation, maintenance and cleaning is excluded.
For the uses in potentially explosive dust atmospheres process-related electrostatic charges, e.g. due to passing media have to be excluded.
2. For EPL Gc applications, the "Memory Stick" has only to be operated outside the hazardous area at the USB port.
The connection and disconnection of the SIM card as well as the changing of the power supply cells including their connectors has only be carried out outside the hazardous area.
3. Only permissible cells according to the manufacturer's operating instructions are allowed to be used.
4. The filter element on the housing wall of the VEGAPULS Air 42 variant is only certified as a part of this variant.
5. The permissible ambient temperature range is given in the operating instructions.