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 KIWA 19.0014X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2023-04-03) Issue 0 (2020-04-17)
Date of Issue:	2023-06-07		

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

Equipment: **Radar sensors types VEGAPULS C 21, C 22, C 23**

Optional accessory:

Type of Protection: **Intrinsic Safety "ib", Encapsulation "mb" and Dust Protection by Enclosure, "ta", "ta/tb", "tb"**

Marking: Ex ib mb IIC T4 Gb
2-wire 4-20 mA HART:
Ex ta, ta/tb IIIC T_{200} 121°C Da, Da/Db
Ex tb IIIC T_{200} 134°C Db
4-wire Modbus:
Ex ta, ta/tb IIIC T_{200} 142°C Da, Da/Db
Ex tb IIIC T_{200} 155°C Db

Approved for issue on behalf of the IECEx Certification Body: **Dave Magee**

Position: **Senior Director of Operations, Toronto**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
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:

CSA Group
178 Rexdale Blvd
Ontario M9W 1R3
a

IECEx Certificate of Conformity

Certificate No.: **IECEx KIWA 19.0014X**

Date of issue: 2023-06-07

Issue No: 2

Manufacturer:
VEGA Grieshaber
Am Hohenstein 113
77761 Schiltach
Germany

Manufacturing locations:

VEGA Grieshaber
Am Hohenstein 113
77761 Schiltach
Germany

VEGA Americas, Inc.
3877 Mason Research Parkway
Ohio
Mason 45036
United States of America

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

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 Edition:7.0 — Explosive atmospheres - Part 0: Equipment - General requirements

IEC 60079-11:2011 Edition:6.0 — Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

IEC 60079-18:2017 Edition:4.1 — Explosive atmospheres - Part 18: Protection by encapsulation "m"

IEC 60079-31:2013 Edition:2 — Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

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 Reports:

NL/KIWA/ExTR19.0016/00 NL/KIWA/ExTR19.0016/01 NL/KIWA/ExTR19.0016/02

Quality Assessment Report:

DE/TUN/QAR06.0002/12

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Radar sensors types VEGAPULS C 21, C 22, C 23 for use in explosive atmospheres caused by the presence of combustible gases or dusts, are used for monitoring and control of filling levels by means of microwave technology. The electronics, mounted in an plastic enclosure converts the reflected microwave echo, indicating the filling level, into an 2-wire 4-20mA HART or 4-wire Modbus signal. Operation and control of the sensor can either be through the wired connection or via smart phone and VEGA Tools-App (Bluetooth).
The sensor is equipped with a fixed cable of 5m, 10 m, 25m or selectable length with a G1", 1"NPT or R1" threaded connection.

Ambient and process temperature range for Ex ib mb, Ex tb: -20 to 80 ºC
Ambient and process temperature range for Ex ta, ta/tb: -20 to 67 ºC

Electrical Data

2-wire 4-20 mA HART:
Supply and output circuit (+ (Brown wire), - (Blue wire)):
U_N = 12 … 35 V, < 1W
4-wire Modbus:
Supply (+ (Brown wire), - (Blue wire)) and output circuit (+ (Black wire), - (White wire)):
U_N = 8 … 30 V, < 1W

SPECIFIC CONDITIONS OF USE: YES as shown below:
- For electrical and thermal data refer to the general product information.
- The equipment shall be installed and maintained such that hazards caused by electrostatic discharge are excluded and that there is a low risk of mechanical danger.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1 – this Issue introduced the following changes:

1. Introduce alternate electronics for 4-20 mA HART similar to previously evaluated.
2. Minor modification of the label drawing.
3. Additional manufacturing location:
   VEGA India Level and Pressure Measurement Pvt. Ltd., Plot No. 1, Gat No. 181, Village - Phulgaon, Tal. Haveli, Pune 412216, India.
4. Change of manufacturing location:
   From: VEGA Americas, Inc., 4241 Allendorf Drive, Cincinnati, Ohio 45209, United States of America.
   To: VEGA Americas, Inc., 3877 Mason Research Parkway, Ohio, Mason 45036, United States of America.
5. The report is to facilitate the transfer of certificates IECEx KIWA 19.0014X from Kiwa Nederland B.V., Unit Kiwa ExVision, Wilmersdorf 50, 7327 AC Apeldoorn, The Netherlands to CSA Group.

Issue 2 – this Issue introduced the following change:

1. Introduction of alternative enclosure design according to drawing 1016899.

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
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Certificate No.:	**IECEx KIWA 19.0014X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2020-04-17)
Date of Issue:	2023-04-03		

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

Equipment: **Radar sensors types VEGAPULS C 21, C 22, C 23**

Optional accessory:

Type of Protection: **Intrinsic Safety "ib", Encapsulation "mb" and Dust Protection by Enclosure, "ta", "ta/tb", "tb"**

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Position: **Senior Director of Operations, Toronto**

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

CSA Group
178 Rexdale Blvd
Toronto Ontario M9W 1R3
Canada

IECEx Certificate of Conformity

Certificate No.: **IECEx KIWA 19.0014X**

Date of issue: 2023-04-03

Issue No: 1

Manufacturer:
VEGA Grieshaber
Am Hohenstein 113
77761 Schiltach
Germany

Manufacturing locations:

VEGA Grieshaber
Am Hohenstein 113
77761 Schiltach
Germany

VEGA Americas, Inc.
3877 Mason Research Parkway
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DE/TUN/QAR06.0002/12

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Certificate No.:	**IECEx KIWA 19.0014X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2020-04-17		
Applicant:	**VEGA Grieshaber KG** Am Hohenstein 113 77761 Schiltach **Germany**		
Equipment:	**Radar sensors types VEGAPULS C 21, C 22, C 23**		
Optional accessory:			
Type of Protection:	**Ex ib mb, Ex ta, ta/tb, tb**		
Marking:	Ex ib mb IIC T4 Gb 2-wire 4-20 mA HART: Ex ta, ta/tb IIIC T_{200} 121°C Da, Da/Db Ex tb IIIC T_{200} 134°C Db 4-wire Modbus: Ex ta, ta/tb IIIC T_{200} 142°C Da, Da/Db Ex tb IIIC T_{200} 155°C Db		

Approved for issue on behalf of the IECEx Certification Body: **Harry de Wild**

Position: **Certification Officer**

Signature: (for printed version)

Date: 17 April 2020

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Certificate issued by:

Kiwa Nederland B.V. (Unit Kiwa ExVision)
Wilmersdorf 50
7327 AC Apeldoorn
P.O. Box 137
Netherlands

IECEx Certificate of Conformity

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

Additional manufacturing locations: **VEGA Americas, Inc**
4241 Allendorf Drive
Cincinnati, Ohio 45209
United States of America

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Edition:7.0

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Edition:6.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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DE/TUN/QAR06.0002/09

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