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 15.0030X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2015-08-21)
Date of Issue:	2023-03-06		
Applicant:	**VEGA Grieshaber KG** Am Hohenstein 113 77761 Schiltach **Germany**		
Equipment:	**Ex-Separators VEGATRENN 151.*C/O/U*****, **VEGATRENN 152.*C/O/U*****, **VEGATRENN 151.*A***** and **VEGATRENN 152.*A*****		
Optional accessory:			
Type of Protection:	**Intrinsic safety "ia" and increased safety "ec"**		
Marking:	**Ex ec [ia l Ma] IIC T4 Gc** **Ex ec [ia Ga] IIC T4 Gc** **Ex ec [ia IIIC Da] IIC T4 Gc** **[Ex ia Ma] I** **[Ex ia Ga] IIC** **[Ex ia Da] IIIC**		

Approved for issue on behalf of the IECEx Certification Body: **Andreas Meyer**

Position: **Deputy Head of the IECEx Certification Body**

Signature: (for printed version)

Date: (for printed version)

TÜVNORD Digital unterschrieben von Meyer Andreas Datum: 2023.03.06 17:41:57 +01'00'

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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
V 1, 30519 Hannover
ny

TÜV NORD

IECEx Certificate of Conformity

Certificate No.: **IECEx TUN 15.0030X**

Date of issue: 2023-03-06

Issue No: 1

Manufacturer:
VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

Manufacturing locations:

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.
3877 Mason Research Parkway
Ohio
Mason 45036
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 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 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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/ExTR15.0043/01

Quality Assessment Report:

DE/TUN/QAR06.0002/12

IECEx Certificate of Conformity

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

Description:

The Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****,VEGATRENN 151.*A***** and VEGATRENN 152.*A***** are used for the supply of passive, intrinsically safe 4…20 mA two wire measuring sensors, the safe galvanic separation of the intrinsically safe circuits from all non-intrinsically safe circuits and the signal transmission from 4…20 mA sensors.

The Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A***** are passive without own supply are executed with 1 or with 2 channels.

Refers to the attachment to IECEx TUN 15.0030X issue No.1 for details.

SPECIFIC CONDITIONS OF USE: YES as shown below:
1. For EPL Gc applications the Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A***** have to be installed in a suitable enclosure according to IEC 60079-7 in such a way that a degree of protection of at least IP54 according to IEC 60529 is achieved.

2. For EPL Gc applications the Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A***** have to be erected in such a way that a pollution degree 2 or less, according to IEC 60664-1, is achieved.

3. For EPL Gc applications measures have to be taken, external to the Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A*****, to provide a transient protection that ensures that the rated voltage, connected to the power supply terminals, is not exceeded by more than 40 %.

4. The connecting and disconnecting of non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Proof of conformity of the Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A***** to IEC 60079-0:2017, IEC 60079-7:2017 and IEC 60079-11:2011.

Annex:

Attachment to IECEx TUN 15.0030X issue No.1.pdf

TÜV NORD CERT GmbH
Hannover Office
Am TÜV 1
30519 Hannover
Germany

General product information:
Description:

The Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****,VEGATRENN 151.*A***** and VEGATRENN 152.*A***** are used for the supply of passive, intrinsically safe 4…20 mA two wire measuring sensors, the safe galvanic separation of the intrinsically safe circuits from all non-intrinsically safe circuits and the signal transmission from 4…20 mA sensors.
The Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A***** are passive without own supply are executed with 1 or with 2 channels.

Type code and Marking:

	Ex ec [ia I Ma] IIC T4 Gc
VEGATRENN 151.*C/O/U*****	Ex ec [ia Ga] IIC T4 Gc
VEGATRENN 152.*C/O/U*****	Ex ec [ia IIIC Da] IIC T4 Gc
VEGATRENN 151.*A*****	[Ex ia Ma] I
VEGATRENN 152.*A*****	[Ex ia Ga] IIC
	[Ex ia Da] IIIC

Electrical data:

Current output circuits (Terminals Channel 1: 10, 11; 12 Channel 2: 13, 14; 15)	For connection to non-intrinsically safe circuits with the following maximum values: U = 15… 35 V d.c., 4…20 mA U_m = 253 V a.c.
Current input circuits (Terminals Channel 1: 1, 2 Channel 2: 4, 5)	In type of protection intrinsic safety Ex ia I/IIC/IIB(IIIC) with following maximum values per circuit: U_o = 18 V I_o = 31.6 mA P_o = 569 mW Characteristic line: rectangular
Effective internal capacitance C_i	Negligibly small
Effective internal inductance L_i	Negligibly small

The maximum permissible values for the external inductance L_o and the external capacitance C_o can be taken from the following tables:

Ex ia I	L_o [mH]	100	20	10	0.5	0.05
	C_o [µF]	2.5	4.1	4.8	6.7	9

Ex ia IIC	L_o [mH]	7.7	1	0.5	0.2	0.02
	C_o [µF]	0.11	0.13	0.16	0.2	0.309

Ex ia IIB (IIIC)	L_o [mH]	100	20	10	0.5	0.1
	C_o [µF]	0.35	0.9	1.1	1.5	1.78

The intrinsically safe signal circuits are safe galvanically separated from the non-intrinsically safe circuits up to a peak value of the voltage of 375 V.

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30519 Hannover
Germany

Thermal data:
Permissible ambient temperature range during operation: -20 °C ≤ Ta ≤ +60 °C

Details of change (applicable only when revising an existing ExTR package):
Proof of conformity of the Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A***** to IEC 60079-0:2017, IEC 60079-7:2017 and IEC 60079-11:2011.

Specific Conditions of Use:

1. For EPL Gc applications the Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A***** have to be installed in a suitable enclosure according to IEC 60079-7 in such a way that a degree of protection of at least IP54 according to IEC 60529 is achieved.

2. For EPL Gc applications the Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A***** have to be erected in such a way that a pollution degree 2 or less, according to IEC 60664-1, is achieved.

3. For EPL Gc applications measures have to be taken, external to the Ex-Separators type VEGATRENN 151.*C/O/U*****, VEGATRENN 152.*C/O/U*****, VEGATRENN 151.*A***** and VEGATRENN 152.*A*****, to provide a transient protection that ensures that the rated voltage, connected to the power supply terminals, is not exceeded by more than 40 %.

4. The connecting and disconnecting of non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEx TUN 15.0030X	Issue No: 0	Certificate history: Issue No. 0 (2015-08-21)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2015-08-21**		
Applicant:	**VEGA Grieshaber KG** Am Hohenstein 113 77761 Schiltach **Germany**		
Electrical Apparatus:	**Ex-Separator VEGATRENN 151/152.*C/O/U*****, VEGATRENN 151/152.*A*****		
Optional accessory:			
Type of Protection:	**Intrinsic safety and type of protection "n"**		
Marking:	*[Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I and Ex nA IIC T4 Gc*		

Approved for issue on behalf of the IECEx Certification Body: Thomas Heinen

Position: Head of IECEx Certification Body

Signature:
(for printed version)

Date: 2015/08/21

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Certificate issued by:

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30519 Hannover
Germany

IECEx Certificate of Conformity

Certificate No:	IECEx TUN 15.0030X	Issue No: 0
Date of Issue:	**2015-08-21**	Page 2 of 3

Manufacturer:

VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

Additional Manufacturing location(s):

VEGA Americas
4241 Allendorf Drive
Cinncinnati, 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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

*This Certificate **does not** indicate compliance with electrical 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/ExTR15.0043/00

Quality Assessment Report:

DE/TUN/QAR06.0002/06

IECEx Certificate of Conformity

Certificate No:	IECEx TUN 15.0030X	Issue No: 0
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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

See annexe

CONDITIONS OF CERTIFICATION: YES as shown below:

See annexe

Annex:

Annexe_COC_VEGATRENN 151_152_.pdf