



# 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](http://www.iecex.com)

Certificate No.: **IECEx TUN 06.0014X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 4 Issue 3 (2012-03-27)  
Date of Issue: 2023-05-05 Issue 2 (2008-01-31)  
Applicant: **VEGA Grieshaber KG** Issue 1 (2007-06-15)  
Am Hohenstein 113 Issue 0 (2006-12-04)  
77761 Schiltach  
**Germany**  
Equipment: **Suspension pressure transmitter VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\***  
Optional accessory:  
Type of Protection: **Intrinsic safety**  
Marking: **Ex ia IIC T6...T1 Ga**

Approved for issue on behalf of the IECEx  
Certification Body:

**Andreas Meyer**

Position:

**Deputy Head of the IECEx Certification Body**

Signature:  
(for printed version)

**TUVNORD**

Digital unterschrieben  
von Meyer Andreas  
Datum: 2023.05.05  
15:14:16 +02'00'

Date:  
(for printed version)

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Hanover Office  
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**iny**





# IECEX Certificate of Conformity

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Date of issue: 2023-05-05

Issue No: 4

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

Manufacturing locations: **VEGA Grieshaber KG**  
Am Hohenstein 113  
77761 Schiltach  
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 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "I"  
Edition:6.0

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/ExTR06.0059/04](#)

Quality Assessment Report:

[DE/TUN/QAR06.0002/12](#)



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Date of issue: 2023-05-05

Issue No: 4

## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

### Description:

The suspension pressure transmitter VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\* is used for pressure measurement in explosion hazardous areas.

### Type code:

VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\*

### Electrical and thermal data:

Refers to the attachment to IECEx TUN 06.0014X issue No: 4

### SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The permissible ambient temperature range depending on the temperature class and the housing material is given in the operating instructions.
2. The VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\* is to be installed and used in such a way that electrostatic charges are excluded.
3. The shielding connection has to be earthed to avoid electrostatic charge. Observe manual of the manufacturer.
4. The VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\* has to be installed in such a way that any ignition hazards caused by impact or friction (e. g. caused by pendulum or vibration) can be excluded.
5. By using a metallic type label with key ring the following capacitances are measured:

Metallic type label	Capacitance
45 x 23 mm	21 pF
100 x 30 mm	52 pF
73 x 47 mm	61 pF



# IECEx Certificate of Conformity

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Date of issue: 2023-05-05

Issue No: 4

## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Proof of conformity of the suspension pressure transmitter VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\* to the current versions of the standards IEC 60079-0:2017 and IEC 60079-11:2011.

The suspension pressure transmitters VEGAWELL 51 type WL52.AI\*\*\*\*\*C/D\*\* and VEGAWELL 72 type WELL 72. A\*\*\*\*\*C/D\*\* are not available for this issue.

The following changes have been made:

- The non-safety relevant resistors R11 and R45 should be changed from 18k2 to 10k0.
  - Change of the capacitance C13 from 470nF to 22nF.
  - Layout change due to write protection for the EEPROM.
  - For IC2, IC3 and IC16 (currently NC7WZ04) the NC7WZ14 should be used (optionally as replacement type). Pin assignment, layout and function are identical to the already approved type NC7WZ04 from SB1284-1-03-0.
  - For IC5 (currently TLV2381) the TLV9041 should be used (optionally as replacement type). Pin assignment, layout and function are identical to the already approved type TLV2381 from SB1284-1-03-0
- VEGAWELL 52 screwed cap and double seal versions according to drawings ZG3388, ZG3389, ZG3390 and ZG3391 added.

## Annex:

Attachment to IECEx TUN 06.0014X .pdf

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Attachment to IECEx TUN 06.0014X issue No.: 4

**General product information:**

**Description:**

The suspension pressure transmitter VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\* is used for pressure measurement in explosion hazardous areas.

**Type code:**

VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\*

**Electrical data:**

**VEGAWELL 52 type WL52.AI\*\*\*\*\*C\*\***

Supply and signal circuit  
(Wires brown [+] and blue [-]  
resp. terminals 1 and 2)

In type of protection „Intrinsic Safety“ Ex ia IIC  
Only for connection to a certified intrinsically safe circuit.  
Maximum values:  
 $U_i = 30 \text{ V}$   
 $I_i = 131 \text{ mA}$   
 $P_i = 983 \text{ mW}$   
Effective internal capacitance  $C_i = 2.4 \text{ nF} + 133 \text{ pF/m} \times L^*$   
Effective internal inductance  $L_i = 51 \text{ } \mu\text{H} + 0.6 \text{ } \mu\text{H/m} \times L^*$   
 $L^*$ : Length of the connected cable has to not exceed 478 m

Schielding  
(When connecting via housing, the  
shielding is connected to the earth terminal)

Effective internal capacitance wire-shield  
 $C_i = 1.5 \text{ nF} + 215 \text{ pF/m} \times L^*$

**VEGAWELL 52 type WL52.AI\*\*\*\*\*D\*\***

Supply and signal circuit  
(Wires brown [+] and blue [-]  
resp. terminals 1 and 2)

In type of protection „Intrinsic Safety“ Ex ia IIC  
Only for connection to a certified intrinsically safe circuit.  
Maximum values:  
 $U_i = 30 \text{ V}$   
 $I_i = 131 \text{ mA}$   
 $P_i = 983 \text{ mW}$   
Effective internal capacitance  $C_i = 2.4 \text{ nF} + 133 \text{ pF/m} \times L^*$   
Effective internal inductance  $L_i = 51 \text{ } \mu\text{H} + 0.6 \text{ } \mu\text{H/m} \times L^*$   
 $L^*$ : Length of the connected cable has to not exceed 478 m

Schielding  
(When connecting via housing, the  
shielding is connected to the earth terminal)

Effective internal capacitance wire-shield  
 $C_i = 1.5 \text{ nF} + 215 \text{ pF/m} \times L^*$

**Temperature measuring circuit**

(Wires white/yellow, red/black resp.  
terminals 3 ... 6)

In type of protection „Intrinsic Safety“ Ex ia IIC  
Only for connection to a certified intrinsically safe circuit.  
Maximum values:  
 $U_i = 30 \text{ V}$   
 $I_i = 11 \text{ mA}$   
 $P_i = 80 \text{ mW}$   
Effective internal capacitance  $C_i = 188 \text{ pF/m} \times L^*$   
Effective internal inductance  $L_i = 0.6 \text{ } \mu\text{H/m} \times L^*$   
 $L^*$ : Length of the connected cable has to not exceed 351 m

Schielding  
(When connecting via housing, the  
shielding is connected to the earth terminal)

Effective internal capacitance wire-shield  
 $C_i = 555 \text{ pF/m} \times L^*$

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**Attachment to IECEx TUN 06.0014X issue No.: 4**

**All types:**

The intrinsically safe signal and supply circuit and the temperature measuring circuit are safely galvanically isolated from each other.

The intrinsically safe signal and supply circuit is galvanically separated from parts which can be earthed. The metallic parts of VEGAWELL 52 are electrically connected to the shield of the permanently mounted connection cable.

**Thermal data:**

The permissible ambient temperature range dependend on the temperature class and the housing material has to be taken from the following tables:

VEGAWELL 52 with transmitter material metal (316L, Duplex, Titanium):

Temperature class	Ambient temperature range
T6	-40 °C... +66 °C
T5, T4, T3, T2, T1	-40 °C... +80 °C

VEGAWELL 52 with transmitter material plastic (PVDF, PP, PE coating):

Temperature class	Ambient temperature range
T6, T5, T4, T3, T2, T1	-20 °C... +60 °C

**Details of change:**

Proof of conformity of the suspension pressure transmitter VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\* to the current versions of the standards IEC 60079-0:2017 and IEC 60079-11:2011.

The suspension pressure transmitters VEGAWELL 51 type WL51.AI\*\*\*\*\*C/D\*\* and VEGAWELL 72 type WELL 72. A\*\*\*\*\*C/D\*\* are not available for this issue.

The following changes have been made:

- The non-safety relevant resistors R11 and R45 should be changed from 18k2 to 10k0.
- Change of the capacitance C13 from 470nF to 22nF.
- Layout change due to write protection for the EEPROM.
- For IC2, IC3 and IC16 (currently NC7WZ04) the NC7WZ14 should be used (optionally as replacement type). Pin assignment, layout and function are identical to the already approved type NC7WZ04 from SB1284-1-03-0.
- For IC5 (currently TLV2381) the TLV9041 should be used (optionally as replacement type). Pin assignment, layout and function are identical to the already approved type TLV2381 from SB1284-1-03-0.
- VEGAWELL 52 screwed cap and double seal versions according to drawings ZG3388, ZG3389, ZG3390 and ZG3391 added.

**Specific Conditions of Use:**

1. The permissible ambient temperature range depending on the temperature class and the housing material is given in the operating instructions.
2. The VEGAWELL 52 type WL52.AI\*\*\*\*\* C/D\*\* is to be installed and used in such a way that electrostatic charges are excluded.
3. The shielding connection has to be earthed to avoid electrostatic charge. Observe manual of the manufacturer.
4. The VEGAWELL 52 type WL52.AI\*\*\*\*\*C/D\*\* has to be installed in such a way that any ignition hazards caused by impact or friction (e. g. caused by pendulum or vibration) can be excluded.
5. By using a metallic type label with key ring the following capacitances are measured:

Metallic type label	Capacitance
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