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 04.0022X issue No.:3	Certificate history: Issue No. 3 (2009-2-3) Issue No. 2 (2008-8-4) Issue No. 1 (2007-7-11) Issue No. 0 (2004-9-6)
Status:	**Current**	
Date of Issue:	**2009-02-03**	Page 1 of 4
Applicant:	**VEGA Grieshaber KG** Am Hohenstein 113 77761 Schiltach Germany **Germany**	
Electrical Apparatus: *Optional accessory:*	**Capacitive Level Switch** **Type: VEGACAP CP6*.CI***Z***	
Type of Protection:	**Intrinsic safety**	
Marking:	**Zone 0, 0/1 Ex ia IIC T6**	
Approved for issue on behalf of the IECEx Certification Body:	Karl-Heinz Schwedt	
Position:	Head of the IECExCB	
Signature: *(for printed version)*		
Date:	2009-02-03	

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 the Official IECEx Website.

Certificate issued by:

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

TÜV NORD

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2009-02-03** Issue No.: **3**

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

Manufacturing location(s):
VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2004 Edition: 1	Electrical apparatus for explosve gas atmospheres - Part 26: Construction, test and marking of Group II Zone 0 electrical apparatus

*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

IECEx ATR:
ExTR DE/TUN/08.0023/01

File Reference:
09 204 555126

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2009-02-03** Issue No.: **3**

Schedule

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

The capacitive level switches type VEGACAP CP6*.CI**Z** are used for monitoring or control of filling levels in explosion hazardous areas.

The measuring media are allowed to be combustible liquids, gases, mists or vapours.

Mechanical execution of the capacitive level switches:

type	electrodes
CP62.CI**Z**	partly insulated electrode, optionally with screening tube or concentric tube
CP63.CI**Z**	fully insulated electrode, optionally plated
CP64.CI**Z**	fully insulated electrode, optionally with screening tube, concentric tube or plated
CP65.CI**Z**	partly insulated cable electrode
CP66.CI**Z**	insulated cable electrode

CONDITIONS OF CERTIFICATION: YES as shown below:

At the plastic parts of the capacitive level switches type VEGACAP CP6*.CI**Z** there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2009-02-03** Issue No.: **3**

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

see annexe

Annexe: 3rd supplement_COC_VEGACAP CP6C_Z_TUN 04.0022X.pdf

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

IECEx Certification Body

IECEx ExTR:	File reference:
DE/TUN/ExTR08.0023/01	09 204 555126
IECEx QAR:	File reference:
DE/QAR/TUN/06.0002/00	QAR TUN 04.0002

The capacitive level switches type VEGACAP CP6*.CI***Z*** are used for monitoring or control of filling levels in explosion hazardous areas.

The measuring media are allowed to be combustible liquids, gases, mists or vapours.

The changes refer to the mounting of an additional printed circuit board for shielding and the modification of an internal plug connection.

All other details remain unchanged.

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 04.0022X issue No.:2	Certificate history: Issue No. 2 (2008-8-4) Issue No. 1 (2007-7-11) Issue No. 0 (2004-9-6)
Status:	**Current**	
Date of Issue:	**2008-08-04**	Page 1 of 5
Applicant:	**VEGA Grieshaber KG** Am Hohenstein 113 77761 Schiltach Germany **Germany**	
Electrical Apparatus: *Optional accessory:*	**Capacitive Level Switch** **Type: VEGACAP CP6*.CI**Z****	
Type of Protection:	**Intrinsic safety**	
Marking:	**Ex ia IIC T6**	
Approved for issue on behalf of the IECEx Certification Body:		Karl-Heinz Schwedt
Position:		Head of the IECExCB
Signature: *(for printed version)*		i.V. Dr. Peters
Date:		4.8.2008

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 the Official IECEx Website.

Certificate issued by:

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

TÜV NORD

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2008-08-04** Issue No.: **2**

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

Manufacturing location(s):
VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2004 Edition: 1	Electrical apparatus for explosve gas atmospheres - Part 26: Construction, test and marking of Group II Zone 0 electrical apparatus

*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

IECEx ATR:
ExTR 08.0023/00

File Reference:
08 204 554575

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2008-08-04** Issue No.: **2**

Schedule

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

The capacitive level switches type VEGACAP CP6*.CI**Z** are used for monitoring or control of filling levels in explosion hazardous areas.

The measuring media are allowed to be combustible liquids, gases, mists or vapours.

Mechanical execution of the capacitive level switches:

type	electrodes
CP62.CI**Z**	partly insulated electrode, optionally with screening tube or concentric tube
CP63.CI**Z**	fully insulated electrode, optionally plated
CP64.CI**Z**	fully insulated electrode, optionally with screening tube, concentric tube or plated
CP65.CI**Z**	partly insulated cable electrode
CP66.CI**Z**	insulated cable electrode

CONDITIONS OF CERTIFICATION: YES as shown below:

At the plastic parts of the capacitive level switches type VEGACAP CP6*.CI**Z** there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2008-08-04** Issue No.: **2**

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

See annnexe

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2008-08-04** Issue No.: **2**

Additional information:

see annexe

Annexe: 2nd supplement_COC_VEGACAP CP6C_Z_TUN 04.0022X.pdf, 1st supplement_COC_VEGACAP CP6C_Z_TUN 04 0022X.pdf

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

IECEx Certification Body

IECEx ExTR:	File reference:
DE/TUN/ExTR08.0023/00	08 204 554575
IECEx QAR:	File reference:
DE/QAR/TUN/06.0002/00	QAR TUN 04.0002

The capacitive level switches type VEGACAP CP6*.CI***Z*** are used for monitoring or control of filling levels in explosion hazardous areas.
The measuring media are allowed to be combustible liquids, gases, mists or vapours.

The changes refer to the type designation, the mechanical and electrical construction, the temperature range in the area of the electronics/of the medium, the special conditions for safe use and the marking.
The marking reads as follows: Zone 0, 0/1 Ex ia IIC Tx (see tables for temperature ranges).

Type designation and mechanical execution of the level switches:

Type	Electrodes
CP62.CI***Z***	partly insulated electrode, optionally with screening tube or concentric tube
CP63.CI***Z***	fully insulated electrode, optionally plated
CP64.CI***Z***	fully insulated electrode, optionally with screening tube, concentric tube or plated
CP65.CI***Z***	partly insulated cable electrode optionally with additionally insulated cable
CP66.CI***Z***	fully insulated cable electrode
CP69.CI***Z***	fully insulated 2-rod electrode

If the capacitive level switches are used in explosion hazardous areas of zone 0, the permissible temperature range in the area of the electronics/of the medium dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range	Medium temperature range
T6	-20 °C ... +58 °C	-20°C ... +58 °C
T5, T4, T3, T2, T1	-20 °C ... +60 °C	-20°C ... +60 °C

The capacitive level switches are allowed to be operated in an explosion hazardous area of the zone 0, only if atmospheric conditions exist (pressure from 0.8 bar to 1.1 bar).
If no explosion hazardous atmospheres exist, the permissible operating temperatures and pressures have to be taken from the manufacturer's data (manual).

If the capacitive level switches are mounted in the partition wall between explosion hazardous areas of the zone 0 (electrode) and zone 1 (electronics), the permissible temperature range in the area of the electronics/of the medium dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range	Medium temperature range
T6	-40 °C ... +58 °C	-20°C ... +60 °C
T5	-40 °C ... +73 °C	-20°C ... +60 °C
T4, T3, T2, T1	-40 °C ... +80 °C	-20°C ... +60 °C

The electrodes of the capacitive level switches are allowed to be operated in an explosion hazardous area of the zone 0, only if atmospheric conditions exist (pressure from 0.8 bar to 1.1 bar).
If no explosion hazardous atmospheres exist, the permissible operating temperatures and pressures have to be taken from the manufacturer's data (manual).

If the sensors of the capacitive level switches are operated at higher medium temperatures as listed in the a.m. table, measures have to be taken, that the danger of ignition caused by these hot surfaces is excluded. The max. permissible temperature at the electronics/housing must not exceed the values as mentioned in the a.m. table.

If the capacitive level switches are mounted in explosion hazardous areas of the zone 1, the permissible temperature range in the area of the electronics/of the medium dependent on the temperature class has to be taken from the following table:

temperature class	ambient temperature range	medium temperature range for electrodes with PE-insulation	medium temperature range for other electrodes
T6	- 40°C... + 58°C	- 40°C... + 80°C	-50°C ... +85 °C
T5	- 40°C... + 73°C	- 40°C... + 80°C	-50°C ... +100 °C
T4	- 40°C... + 80°C	- 40°C... + 80°C	-50°C ... +135 °C
T3*, T2*, T1*	- 40°C... + 80°C	- 40°C... + 80°C	-50°C ... +150 °C

* with temperature adapter for medium temperatures > 150°C ... 200°C

If the sensors of the capacitive level switches are operated at higher medium temperatures as listed in the a.m. table, measures have to be taken, that the danger of ignition caused by these hot surfaces is excluded. The max. permissible temperature on the electronics/housing must not exceed the values as mentioned in the a.m. table.

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

IECEx Certification Body

Special conditions for safe use:

1. At the plastic parts of the capacitive level switches type VEGACAP CP6*.CI***Z*** there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.
2. For zone 0 applications, at the metallic parts of the capacitive level switches type VEGACAP CP6*.CI***Z*** made of light metal there is a danger of ignition by impact or friction. Observe manual of the manufacturer.
3. For zone 0 resp. zone 0/1 applications and at risks by pendulum or vibration the respective parts of the capacitive level switches type VEGACAP CP65.CI***Z*** and type VEGACAP CP66.CI***Z*** have to be secured effectively against these dangers. Observe manual of the manufacturer.

All other details remain unchanged.

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

IECEx Certification Body

IECEx ExTR:	File reference:
DE/TUN/ExTR08.0023/00	08 204 554575
IECEx QAR:	File reference:
DE/QAR/TUN/06.0002/00	QAR TUN 04.0002

The capacitive level switches type VEGACAP CP6*.CI***Z*** are used for monitoring or control of filling levels in explosion hazardous areas.

The measuring media are allowed to be combustible liquids, gases, mists or vapours.

The changes refer to the type designation, the mechanical and electrical construction, the temperature range in the area of the electronics/of the medium, the special conditions for safe use and the marking.
The marking reads as follows: Zone 0, 0/1 Ex ia IIC Tx (see tables for temperature ranges).

Type designation and mechanical execution of the level switches:

Type	Electrodes
CP62.CI***Z***	partly insulated electrode, optionally with screening tube or concentric tube
CP63.CI***Z***	fully insulated electrode, optionally plated
CP64.CI***Z***	fully insulated electrode, optionally with screening tube, concentric tube or plated
CP65.CI***Z***	partly insulated cable electrode optionally with additionally insulated cable
CP66.CI***Z***	fully insulated cable electrode
CP69.CI***Z***	fully insulated 2-rod electrode

If the capacitive level switches are used in explosion hazardous areas of zone 0, the permissible temperature range in the area of the electronics/of the medium dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range	Medium temperature range
T6	-20 °C … +58 °C	-20°C … +58 °C
T5, T4, T3, T2, T1	-20 °C … +60 °C	-20°C … +60 °C

The capacitive level switches are allowed to be operated in an explosion hazardous area of the zone 0, only if atmospheric conditions exist (pressure from 0.8 bar to 1.1 bar).
If no explosion hazardous atmospheres exist, the permissible operating temperatures and pressures have to be taken from the manufacturer's data (manual).

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

IECEx Certification Body

If the capacitive level switches are mounted in the partition wall between explosion hazardous areas of the zone 0 (electrode) and zone 1 (electronics), the permissible temperature range in the area of the electronics/of the medium dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range	Medium temperature range
T6	-40 °C … +58 °C	-20°C … +60 °C
T5	-40 °C … +73 °C	-20°C … +60 °C
T4, T3, T2, T1	-40 °C … +80 °C	-20°C … +60 °C

The electrodes of the capacitive level switches are allowed to be operated in an explosion hazardous area of the zone 0, only if atmospheric conditions exist (pressure from 0.8 bar to 1.1 bar).
If no explosion hazardous atmospheres exist, the permissible operating temperatures and pressures have to be taken from the manufacturer's data (manual).

If the sensors of the capacitive level switches are operated at higher medium temperatures as listed in the a.m. table, measures have to be taken, that the danger of ignition caused by these hot surfaces is excluded. The max. permissible temperature at the electronics/housing must not exceed the values as mentioned in the a.m. table.

If the capacitive level switches are mounted in explosion hazardous areas of the zone 1, the permissible temperature range in the area of the electronics/of the medium dependent on the temperature class has to be taken from the following table:

temperature class	ambient temperature range	medium temperature range for electrodes with PE-insulation	medium temperature range for other electrodes
T6	- 40°C... + 58°C	- 40°C... + 80°C	-50°C… +85 °C
T5	- 40°C... + 73°C	- 40°C... + 80°C	-50°C… +100 °C
T4	- 40°C... + 80°C	- 40°C... + 80°C	-50°C… +135 °C
T3*, T2*, T1*	- 40°C... + 80°C	- 40°C... + 80°C	-50°C… +150 °C

* with temperature adapter for medium temperatures > 150°C… 200°C

If the sensors of the capacitive level switches are operated at higher medium temperatures as listed in the a.m. table, measures have to be taken, that the danger of ignition caused by these hot surfaces is excluded. The max. permissible temperature on the electronics/housing must not exceed the values as mentioned in the a.m. table.

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

IECEx Certification Body

Special conditions for safe use:

1. At the plastic parts of the capacitive level switches type VEGACAP CP6*.CI***Z*** there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.
2. For zone 0 applications, at the metallic parts of the capacitive level switches type VEGACAP CP6*.CI***Z*** made of light metal there is a danger of ignition by impact or friction. Observe manual of the manufacturer.
3. For zone 0 resp. zone 0/1 applications and at risks by pendulum or vibration the respective parts of the capacitive level switches type VEGACAP CP65.CI***Z*** and type VEGACAP CP66.CI***Z*** have to be secured effectively against these dangers. Observe manual of the manufacturer.

All other details remain unchanged.

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 04.0022X issue No.:1	History Issue No. 1 (2007-7-11) Issue No. 0 (2004-9-6)
Status:	**Current**	
Date of Issue:	**2007-07-11** Page 1 of 5	
Applicant:	**VEGA Grieshaber KG** Am Hohenstein 113 77761 Schiltach Germany **Germany**	
Electrical Apparatus: *Optional accessory:*	**Capacitive Level Switch** **Type: VEGACAP CP6*.CI**Z****	
Type of Protection:	**Intrinsic safety**	
Marking:	**Ex ia IIC T6**	
Approved for issue on behalf of the IECEx Certification Body:	Herbert Stürwold	
Position:	Head of the IECEx CB	
Signature: *(for printed version)*		
Date:	11 07 2007	

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 the Official IECEx Website.

Certificate issued by:

TÜV NORD CERT GmbH & Co. KG
Am TUV1
D-30519 Hannover
Germany

TUV NORD

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2007-07-11** Issue No.: **1**

Manufacturer:

VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany
Germany

Manufacturing location(s):

VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

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 manufacture'rs 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 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'

*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

IECEx ATR:
DE/TUN/07.0012/00

File Reference:
07203553200

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2007-07-11** Issue No.: **1**

Schedule

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

The capacitive level switches type VEGACAP CP6*.CI**Z** are used for monitoring or control of filling levels in explosion hazardous areas.

The measuring media are allowed to be combustible liquids, gases, mists or vapours.

Mechanical execution of the capacitive level switches:

type	electrodes
CP62.CI**Z**	partly insulated electrode, optionally with screening tube or concentric tube
CP63.CI**Z**	fully insulated electrode, optionally plated
CP64.CI**Z**	fully insulated electrode, optionally with screening tube, concentric tube or plated
CP65.CI**Z**	partly insulated cable electrode
CP66.CI**Z**	insulated cable electrode

CONDITIONS OF CERTIFICATION: YES as shown below:

At the plastic parts of the capacitive level switches type VEGACAP CP6*.CI**Z** there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2007-07-11** Issue No.: **1**

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

see annexe

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2007-07-11** Issue No.: **1**

Additional information:

see annexe

Annexe: 1st supplement_COC_VEGACAP CP6C_Z_TUN 04 0022X.pdf

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

Testing Laboratory Explosion Protected Equipment and Monitoring Devices

IECEx TR:	File reference:
DE/TUN/ExTR07.0012/00	07203553200
IECEx QAR:	File reference:
DE/QAR/TUN/06.0002/00	QAR/TUN/QAR06.0002/00

The capacitive level switches type VEGACAP CP6*.CI**Z** are used for monitoring or control of filling levels in explosion hazardous areas.
The measuring media are allowed to be combustible liquids, gases or vapours.

The changes regarding refer to:
- the electronic insert
- the electrical data regarding the fixed cable tail for types VEGACAP CP6*.CI**Z3/4/5/9**
- the mechanical design of the housings and the electrodes
- the new type VEGACAP CP69.CI**Z** with 2 rod electrode

Mechanical execution of the capacitive level switches:

type	electrodes
CP62.CI**Z**	partly insulated electrode, optionally with screening tube or concentric tube
CP63.CI**Z**	fully insulated electrode, optionally plated
CP64.CI**Z**	fully insulated electrode, optionally with screening tube, concentric tube or plated
CP65.CI**Z**	partly insulated cable electrode
CP66.CI**Z**	insulated cable electrode
CP69.CI**Z**	fully insulated 2-rod electrode

Supply and signal circuit ..... in type of protection „Intrinsic Safety" Ex ia IIC
(Terminals KI1[+], KI2[-] in the housing for the electronics resp., in the execution with the 2 cell housing, in the terminal housing)

only for connection to a certified intrinsically safe circuit
maximum values:
U_i = 30 V
I_i = 131 mA
P_i = 983 mW

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

Testing Laboratory Explosion Protected Equipment and Monitoring Devices

The effective internal capacitances and inductances are negligibly small.

Additionally, in the execution
VEGACAP CP6*.CI**Z3/4/5/9*
the following values for Li` and Ci` of the connection cable mounted fixed have to be observed:

L´	=	0.55 µH/m
C´wire/wire	=	58 pF/m
C´wires/shield	=	270 pF/m

The intrinsically safe signal circuit is safe galvanically separated from the parts which can be earthed.

All other details remain unchanged.

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

Testing Laboratory Explosion Protected Equipment and Monitoring Devices

IECEx TR:	File reference:
DE/TUN/ExTR07.0012/00	07203553200
IECEx QAR:	File reference:
DE/QAR/TUN/06.0002/00	QAR/TUN/QAR06.0002/00

The capacitive level switches type VEGACAP CP6*.CI**Z** are used for monitoring or control of filling levels in explosion hazardous areas.
The measuring media are allowed to be combustible liquids, gases or vapours.

The changes regarding refer to:
- the electronic insert
- the electrical data regarding the fixed cable tail for types VEGACAP CP6*.CI**Z3/4/5/9**
- the mechanical design of the housings and the electrodes
- the new type VEGACAP CP69.CI**Z** with 2 rod electrode

Mechanical execution of the capacitive level switches:

type	electrodes
CP62.CI**Z**	partly insulated electrode, optionally with screening tube or concentric tube
CP63.CI**Z**	fully insulated electrode, optionally plated
CP64.CI**Z**	fully insulated electrode, optionally with screening tube, concentric tube or plated
CP65.CI**Z**	partly insulated cable electrode
CP66.CI**Z**	insulated cable electrode
CP69.CI**Z**	fully insulated 2-rod electrode

Supply and signal circuit …….. (Terminals KI1[+], KI2[-] in the housing for the electronics resp., in the execution with the 2 cell housing, in the terminal housing) in type of protection „Intrinsic Safety“ Ex ia IIC

only for connection to a certified intrinsically safe circuit
maximum values:
U_i = 30 V
I_i = 131 mA
P_i = 983 mW

TÜV NORD CERT GmbH
Am TÜV 1
30519 Hannover

Testing Laboratory Explosion Protected Equipment and Monitoring Devices

The effective internal capacitances and inductances are negligibly small.

Additionally, in the execution
VEGACAP CP6*.CI**Z3/4/5/9*
the following values for Li` and Ci` of the connection cable mounted fixed have to be observed:

L´	=	0.55 µH/m
C´wire/wire	=	58 pF/m
C´wires/shield	=	270 pF/m

The intrinsically safe signal circuit is safe galvanically separated from the parts which can be earthed.

All other details remain unchanged.

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 04.0022X issue No.:0

Certificate history:
Issue No. 3 (2009-2-3)
Issue No. 2 (2008-8-4)
Issue No. 1 (2007-7-11)
Issue No. 0 (2004-9-6)

Status: **Current**

Date of Issue: **2004-09-06** Page 1 of 4

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

Electrical Apparatus: **Capacitive Level Switch**
Optional accessory: Type: VEGACAP CP6*.CI**Z**

Type of Protection: **Intrinsic safety**

Marking: **Ex ia IIC T6**

Approved for issue on behalf of the IECEx Certification Body: Herbert Stürwold

Position: Head of the IECExCB

Signature:
(for printed version)

Date:

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 the Official IECEx Website.

Certificate issued by:

TÜV NORD CERT GmbH & Co. KG
Am TUV1
D-30519 Hannover
Germany

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2004-09-06** Issue No.: **0**

Page 2 of 4

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

Manufacturing location(s):
VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

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:

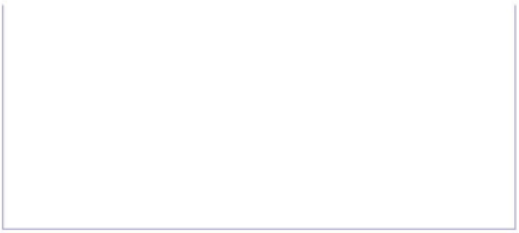
IEC 60079-0 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'

*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

IECEx ATR: **DE/TUN/04/551591**

File Reference: **04 YEX 551591**



IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2004-09-06** Issue No.: **0**

Page 3 of 4

Schedule

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

The capacitive level switches type VEGACAP CP6*.CI**Z** are used for monitoring or control of filling levels in explosion hazardous areas.

The measuring media are allowed to be combustible liquids, gases, mists or vapours.

Mechanical execution of the capacitive level switches:

type	electrodes
CP62.CI**Z**	partly insulated electrode, optionally with screening tube or concentric tube
CP63.CI**Z**	fully insulated electrode, optionally plated
CP64.CI**Z**	fully insulated electrode, optionally with screening tube, concentric tube or plated
CP65.CI**Z**	partly insulated cable electrode
CP66.CI**Z**	insulated cable electrode

CONDITIONS OF CERTIFICATION: YES as shown below:

At the plastic parts of the capacitive level switches type VEGACAP CP6*.CI**Z** there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.

IECEx Certificate of Conformity

Certificate No.: IECEx TUN 04.0022X

Date of Issue: **2004-09-06** Issue No.: **0**

Page 4 of 4

EQUIPMENT(continued):

The permissible temperature range in the area of the electronics/of the medium dependent on the temperature class has to be taken from the following table:

Temperature class	ambient temperature range	medium temperature range
T6	-40°C ... +58 °C	-50°C ... +85 °C
T5	-40°C ... +73 °C	-50°C ... +100 °C
T4	-40°C ... +80 °C	-50°C ... +135 °C
T3*, T2*, T1*	-40°C ... +80 °C	-50°C ... +200 °C

***** with temperature adapter for medium temperatures ≥ 150°C

Electrical data

Supply and signal circuit …….. (Terminals KI1[+], KI2[-] in the housing for the electronics resp., in the execution with the 2 cell housing, in the terminal housing)

in type of protection „Intrinsic Safety" EEx ia IIC only for connection to a certified intrinsically safe circuit maximum values:

Ui	=	30	V
Ii	=	131	mA
Pi	=	983	mW

The effective internal capacitances and inductances are negligibly small.

The max. length of the triax cable resp. coax cable between the housing for the electronics and the terminal housing (2 cell housing) is 28 m.

The intrinsically safe supply and signal circuit is safe galvanically separated from the parts which can be earthed.