



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

Certificate No.: IECEx PTB 07.0003 issue No.:0 Certificate history:.....

Status: **Current**

Date of Issue: **2008-02-11** Page 1 of 3

Applicant: **Besta AG**  
Ackerstrasse 45  
8610 Uster  
Switzerland

Electrical Apparatus: **Trimod Besta Level Switch, Type Z...5**  
*Optional accessory:*

Type of Protection: **Flameproof enclosures "d"; Increased safety "e"; Construction, test and marking of Group II Zone 0 electrical apparatus**

Marking: **Ex ed IIC T6 resp. T5**

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

Dr. Ing. Uwe Klausmeyer

*Position:*

Head of Section "Flame Propagation Processes"

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

Certificate issued by:

**Physikalisch-Technische Bundesanstalt (PTB)**  
Bundesallee 100  
38116 Braunschweig  
Germany





# IECEx Certificate of Conformity

Certificate No.: IECEx PTB 07.0003

Date of Issue: 2008-02-11

Issue No.: 0

Page 2 of 3

Manufacturer: **Besta AG**  
Ackerstrasse 45  
8610 Uster  
**Switzerland**

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2003</b> Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
<b>IEC 60079-26 : 2004</b> Edition: 1	Electrical apparatus for explosive gas atmospheres - Part 26: Construction, test and marking of Group II Zone 0 electrical apparatus
<b>IEC 60079-7 : 2001</b> Edition: 3	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'

*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/PTB/ExTR07.0003/00](#)

Quality Assessment Report:

[FR/LCI/QAR07.0005/00](#)



# IECEx Certificate of Conformity

Certificate No.: IECEx PTB 07.0003

Date of Issue: 2008-02-11

Issue No.: 0

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## Schedule

### EQUIPMENT:

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

see attached document "Description of Besta Trimod.pdf"

### CONDITIONS OF CERTIFICATION: NO



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

Certificate No.:  issue No.:

Status:

Date of Issue: **2007-12-03** Page 1 of 3

Applicant: **Besta AG**  
Ackerstrasse 45  
8610 Uster  
**Switzerland**

Electrical Apparatus: **Trimod Besta Level Switch type I\*\*\***  
*Optional accessory:*

Type of Protection: **General requirements; Intrinsic safety 'i'; Construction, test and marking of Group II Zone 0 electrical apparatus**

Marking: **Zone 0/Zone 1 Ex ia IIC T6...T2**

*Approved for issue on behalf of the IECEx Certification Body:* Dr.-Ing Ulrich Johannsmeyer

*Position:* Department Head "Intrinsic Safety and Safety of Systems"

*Signature:*  
*(for printed version)*

*Date:*

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Certificate issued by:

**Physikalisch-Technische Bundesanstalt (PTB)**  
Bundesallee 100  
38116 Braunschweig  
Germany





# IECEX Certificate of Conformity

Certificate No.: IECEx PTB 07.0005

Date of Issue: **2007-12-03**

Issue No.: **0**

Page 2 of 3

Manufacturer: **BESTA AG**  
Ackerstrasse 45  
8610 Uster  
**Switzerland**

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 1999</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
<b>IEC 60079-26 : 2004</b> Edition: 1	Electrical apparatus for explosive 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*

Test Report:

[DE/PTB/ExTR07.0043/00](#)

Quality Assessment Report:

[FR/LCI/QAR07.0005/00](#)



# IECEx Certificate of Conformity

Certificate No.: IECEx PTB 07.0005

Date of Issue: 2007-12-03

Issue No.: 0

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## Schedule

### EQUIPMENT:

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

The level switch Trimod Besta, type I\*\*\* is used for monitoring container levels in hazardous areas, where apparatus of zone 0 or 1 are required. It consists of the switching module SAM which is available in various designs, the flange module FLM and the float module SWM. The level is transmitted to a sensor by means of movable magnets.

#### Zone 0/1-apparatus

The float module SWM is installed in the area for zone 0-apparatus.

The process connecting elements are mounted into the partition, which separates areas from each other where apparatus for zone 0 or zone 1 are required. This is done by using the flange module FLM as separating element.

For applications requiring zone 0/1-apparatus the process pressure shall range from 0.8 up to 1.1 bar. If the operating conditions deviate from this range, the user is responsible for the system's safe operation (even in case of failure) as regards pressures/temperatures of the media used.

For the permissible operating temperatures and pressures as well as the operating conditions without explosive mixtures, reference is made to the manufacturer's instructions.

#### Zone 1-apparatus

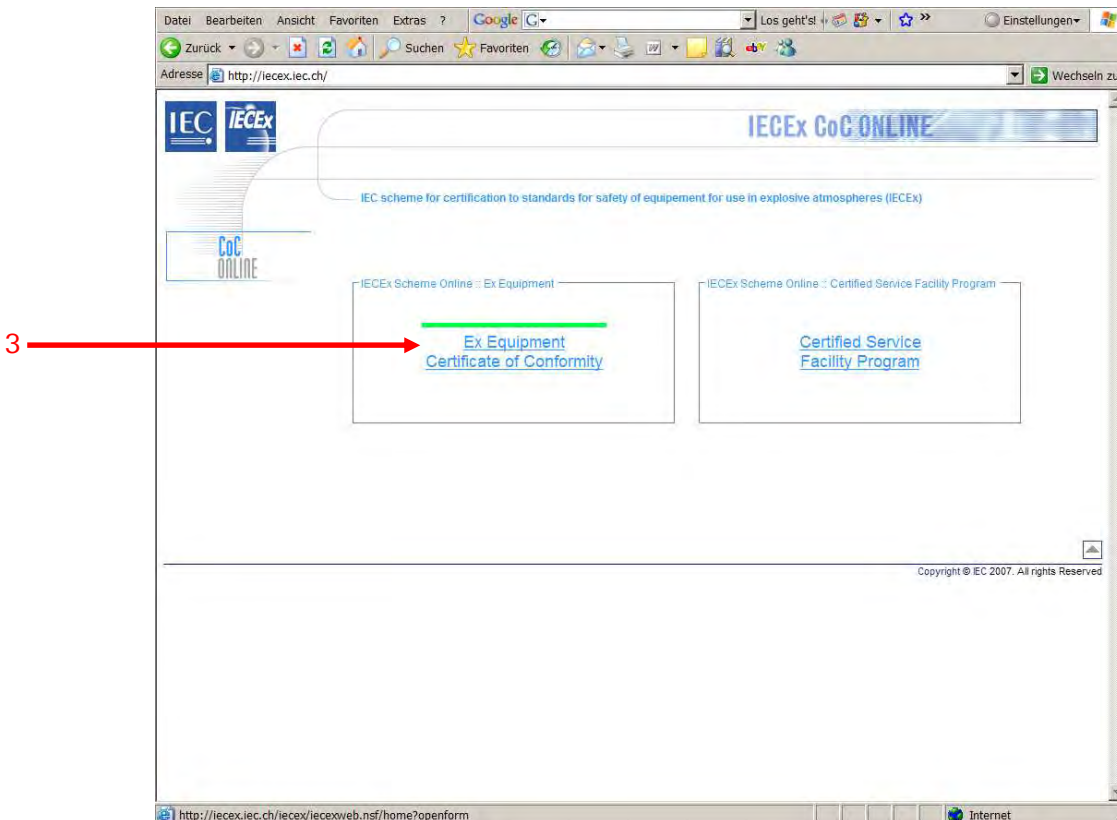
The switching module SAM with the intrinsically safe evaluation and supply circuit and the sensor is installed in hazardous areas requiring zone 1-apparatus. The module comprises the sensor of which electrical signal is fed to the downstream evaluation electronics.

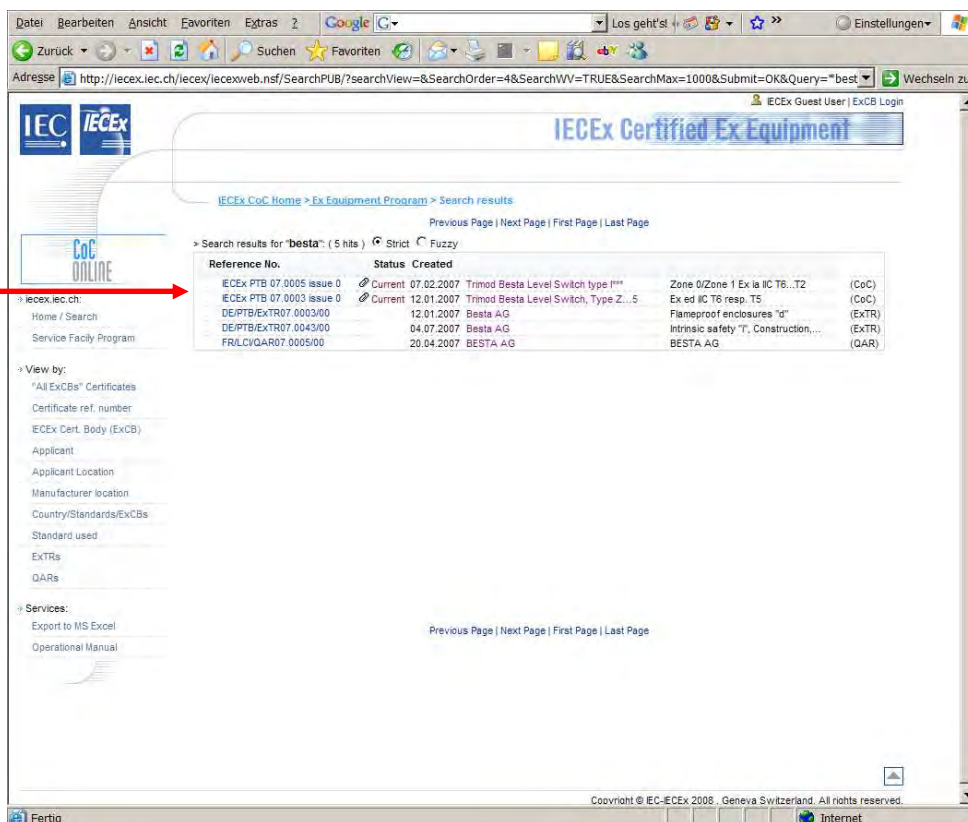
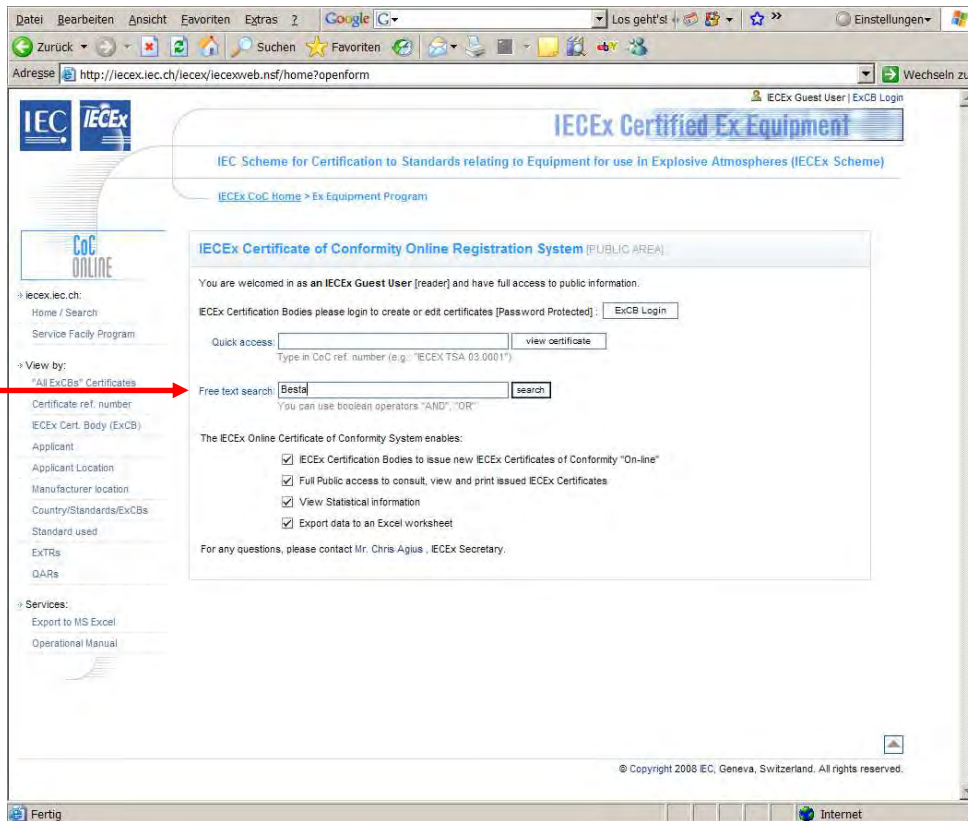
For further information see annex.

### CONDITIONS OF CERTIFICATION: NO

Annexe: [Type Code I.pdf](#)

## Selection of IECEx certificate products - Step by step





5 Certificate of conformity (CoC)

6 IECEX Technical Report (ExTR)

7 IECEX Quality Assessment Report (QAR)

- for Trimod Besta Level Switch type I...

- for Trimod Besta Level Switch type Z...

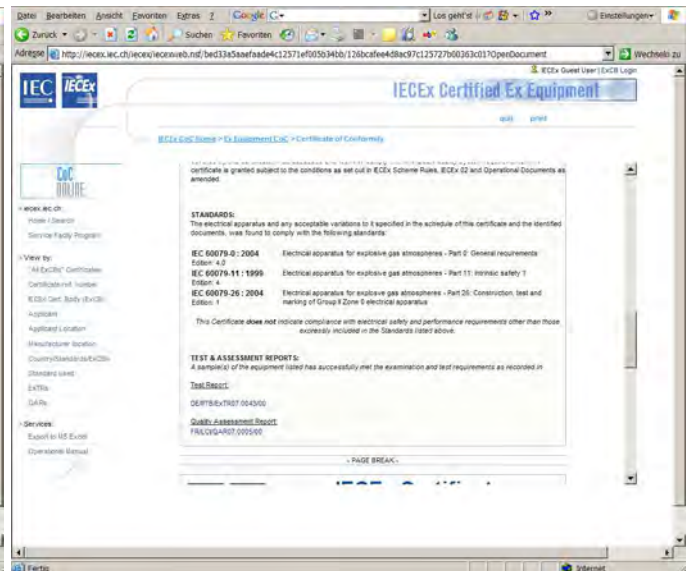
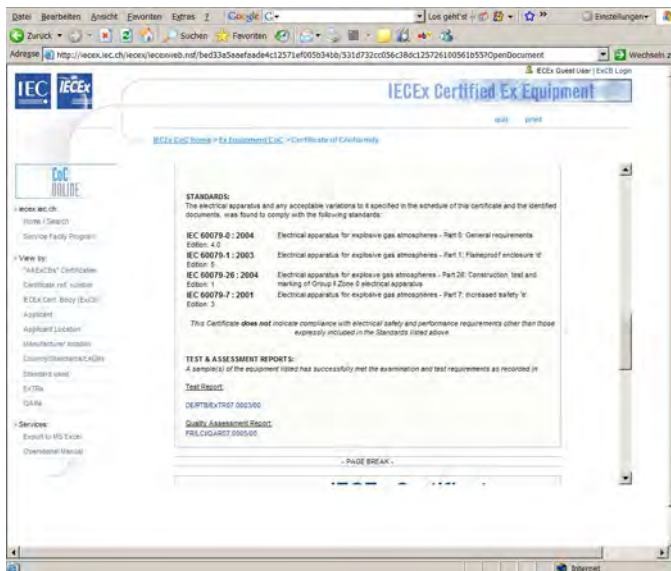
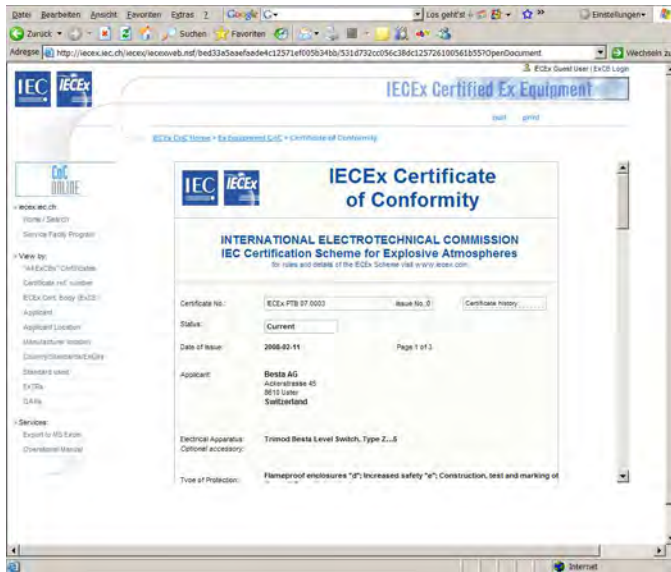
- for Trimod Besta Level Switch type Z...

- for Trimod Besta Level Switch type I...

- for Trimod Besta Level Switch type I... and type Z...

## Trimod Besta Level Switch Type Z...

## Trimod Besta Level Switch Type I...



Scroll down for Annexes

