



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 EPS 15.0038X Issue No: 0 Certificate history:
Issue No. 0 (2015-09-16)

Status: **Current** Page 1 of 3

Date of Issue: **2015-09-16**

Applicant: **Bachofen AG**
Ackerstr. 42
8610 Uster
Switzerland

Electrical Apparatus: **Trimod Besta Level switches type B..., type I..., type IE9... and type Z...**
Optional accessory:

Type of Protection: **d, e, ia**

Marking:
Ex e d IIC T5...T6 Ga/Gb
Ex ia IIC T6...T2 Ga/Gb

Approved for issue on behalf of the IECEx
Certification Body:

Dieter Zitzmann

Position:

Certification manager

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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





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Manufacturer: **Bachofen AG**
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8610 Uster
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Additional 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:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by 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/EPS/ExTR15.0054/00](#)

Quality Assessment Report:

[DE/EPS/QAR12.0005/03](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Trimod Besta level switches are used for control and monitoring of liquid levels of tanks in hazardous locations. The construction is made by different modules (switch module, flange module and float module) with different construction. The float module can be used in locations with EPL Ga. The flange module therefore is used for separation between EPL Ga and EPL Gb. The switch module is situated in EPL Gb zone. The type I is actuated by magnets transferring the level value to a certified intrinsic safe sensor. The connection of the sensor is made by certified intrinsic safe supply. For type Z the level value is also transferred by magnets but the switch action is made by a component certified switch in type of protection "flameproof enclosure d" which is situated in the switch module (type of protection "increased safety e"). The type B includes a micro switch (simple apparatus) which is operated by certified intrinsic safe supply. Electrical data: The maximum electrical values for measure and supply circuit for the type I...8, and IE9...8, sensors are documented in the relevant manufacturer documentation and the component certificates of the sensors. Also the maximum ambient temperatures and temperature class must be considered in accordance with the sensor maximum values. The rated supply values for type Z...8 switch can be found in manufacturers documents and component certificate.

The type B...8 series is only intended for use with certified intrinsic safe circuits with max. values:

$I_i = 0.5A$

$C_i \approx 0 \text{ nF}$

$L_i \approx 0 \text{ }\mu\text{H}$

CONDITIONS OF CERTIFICATION: YES as shown below:

Only the float module and flange module are allowed for use in category 1 application. They must be included in the routine pressure test of the installation.

For the installation and mounting of components (sensors, switches connectors, cable and cable glands) only those are admitted who technically at least meet the standard specified on the cover sheet and for which a separate certificate is present. The specific conditions for use and ambient conditions must comply with the intended use of the final equipment. For use next to heating sources it must be considered that the maximum surface temperature and the operational temperature of components and materials is not exceeded.

For installation in vertical position it must be assured that the float bar of the vertical float module is secured against sidewise movement.