



# 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 BVS 13.0065X issue No.: 0 Certificate history:

Status: Current

Date of Issue: 2013-08-05 Page 1 of 3

Applicant: **tecsis GmbH**  
Carl-Legien-Straße 40  
63073 Offenbach  
Germany

Electrical Apparatus: Tilt sensor type N\*\*1C\*\*\*\*\*  
Optional accessory:

Type of Protection: Equipment protection by flameproof enclosures "d"

Marking: Ex d IIC T4 Gb

Approved for issue on behalf of the IECEx  
Certification Body:

Dr. F. Eickhoff

Position:

Deputy Head of Certification Body

Signature:  
(for printed version)

Date:

2013-08-05

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:

DEKRA EXAM GmbH  
Dinnendahlstrasse 9  
44809 Bochum  
Germany

DEKRA  
DEKRA EXAM GmbH



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Manufacturer: **tecsis GmbH**  
Carl-Legien-Straße 40  
63073 Offenbach  
Germany

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** Explosive atmospheres - Part 0: General requirements  
Edition: 6.0

**IEC 60079-1 : 2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition: 6

*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/BVS/ExTR13.0088/00](#)

##### Quality Assessment Report:

[DE/BVS/QAR08.0003/02](#)



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## Schedule

### EQUIPMENT:

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

#### Subject and Type

Tilt sensors type N\*\*1C\*\*\*\*\*

\* = not Ex-relevant

#### Description

The tilt sensors are intended for detection of the position angle of an object. They consist of an enclosure made of steel in the type of protection Flameproof enclosure and the electronics for measurement inside.

#### Parameters

$U_{max}$	36 VDC
$I_{max}$	100 mA
$P_{max}$	3 W
$T_{amb}$	-40 °C to 85 °C

### CONDITIONS OF CERTIFICATION: YES as shown below:

The lengths of the flameproof joints are in parts longer and the gaps of the flameproof joints are in parts smaller than the values of table 2 of IEC 60079-1:2007. For information of the dimensions of the flameproof joints contact the manufacturer.

Only screws of stainless steel with a minimum quality of A2-70 or A4-70 have to be used for the closing of the flameproof enclosure.

The tilt sensors are qualified for an ambient temperature range from -40 °C to 85 °C.