



# 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 DEK 17.0018X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2018-02-09

Applicant: **Mettler Toledo GmbH**  
Im Langacher 44  
CH-8606, Greifensee  
**Switzerland**

Equipment: **barrier Model ISB, with factory numbers ISB05000, ISB15000, ISB05X000 and ISB15X000**

Optional accessory:

Type of Protection: **Ex i, Ex t, Ex d**

Marking: For Factory Numbers ISB05000 and ISB15000:  
[Ex ib Gb] IIC  
[Ex ib Db] IIIC  
For Factory Numbers ISB05X000 and ISB15X000:  
Ex d [ib IIC] IIB+H2 T6 Gb or  
Ex tb [ib] IIIC T85 °C Db or  
Ex tb [ib IIC Gb] IIIC T85 °C Db

Approved for issue on behalf of the IECEx  
Certification Body:

**R. Schuller**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

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.
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Certificate issued by:

**DEKRA Certification B.V.**  
Meander 1051  
6825 MJ Arnhem  
**Netherlands**





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Manufacturer: **Mettler-Toledo, LLC**  
1150 Dearborn Drive  
Worthington, Ohio  
43085 USA  
**United States of America**

Manufacturing  
locations:

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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements  
Edition:6.0

[IEC 60079-1:2007](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:6

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

[IEC 60079-31:2008](#) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'  
Edition:1

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:

[NL/DEK/ExTR17.0036/00](#)

Quality Assessment Report:

[NL/DEK/QAR12.0038/04](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

### **Description:**

Barrier, Model ISB, with barrier factory numbers ISB05000 and ISB15000, is a zener barrier.

Barrier, Model ISB, with factory numbers ISB05X000 and ISB15X000 consists of a safety barrier in type of protection Ex i, with factory number ISB05000 or ISB15000 respectively, mounted inside an enclosure in type of protection Ex d and Ex t.

The barriers are used as an interface for intrinsically safe signal transmission and supply of a weighing system.

Ambient temperature range: -10 °C to +40 °C.

### **Electrical data:**

Signal/supply circuit (green connector):  $U_m = 253 \text{ Vac}$ .

Signal/supply circuit (blue connector):

in type of protection intrinsic safety Ex ib IIC, with the following maximum values (circuits combined):

for barrier factory number ISB05000 and ISB05X000 (5 V version):

$U_o = 8.6 \text{ V}$ ;  $I_o = 0.30 \text{ A}$ ;  $P_o = 0.41 \text{ W}$ ;  $C_o = 6.2 \mu\text{F}$ ;  $L_o = 0.3 \text{ mH}$ ,

and for barrier factory number ISB15000 and ISB15X000 (15 V version):

$U_o = 17.2 \text{ V}$ ;  $I_o = 0.30 \text{ A}$ ;  $P_o = 1.2 \text{ W}$ ;  $C_o = 353 \text{ nF}$ ;  $L_o = 150 \mu\text{H}$ .

The earth connection of the barrier shall be connected to the potential equalizing (P.E.) system in accordance with the applicable installation standard.

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

Precautions shall be taken to minimize the risk from electrostatic discharge of the label of model ISB05X000 and model ISB15X000.