



# 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 DEK 15.0074X Issue No: 0 Certificate history:  
Issue No. 0 (2016-01-21)

Status: **Current** Page 1 of 3

Date of Issue: **2016-01-21**

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

Electrical Apparatus: **Load Cell model SLC611**  
*Optional accessory:*

Type of Protection: **Ex i, Ex nA, Ex tc**

Marking: Ex ia IIC T6 ... T4 Ga  
Ex ia IIIC T100 °C Da  
Ex ic IIC T6 ... T4 Gc  
Ex nA IIC T6 ... T4 Gc  
Ex tc IIIC T100 °C Dc

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

R. Schuller

*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:

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





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Manufacturer: **Mettler-Toledo GmbH**  
Im Langacher 44  
8606 Greifensee  
**Switzerland**

Additional Manufacturing  
location(s):

**Mettler-Toledo (Changzhou) Measurement Technology Ltd.**  
No. 111 West Taihu Road, 213125, Changzhou, Jiangsu,  
China

**Mettler-Toledo (Changzhou) Precision Instrument Ltd.**  
No. 5, Middle Huashan Road, Xinbei District  
Changzhou, Jiangsu 213022  
China

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 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-15 : 2010</b> Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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:

[NL/DEK/ExTR15.0099/00](#)

Quality Assessment Report:

[NL/DEK/QAR11.0008/04](#)



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## Schedule

### EQUIPMENT:

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

The Load Cell model SLC611 is used to convert a mechanical force or load into an electrical signal. The load cell is of a sealed construction and is provided with a permanently connected cable with a maximum length of 30 m.

The enclosure of the load cell provides a degree of protection of at least IP68 in accordance with IEC 60079-0.

The maximum surface temperature T100 °C is based on an ambient temperature of +50 °C.  
Ex tc IIIC, Ex ia IIIC is applicable for a maximum layer of dust of 5 mm.

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

The load cell and cable gland is tested for the low risk of mechanical danger (drop height 0,4 m with 1 kg mass) and shall be protected against higher impact energy levels.

For the type of protection Ex nA IIC:  
Provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 40%.

### Annex:

[218740100-ExTR15\\_0099\\_00-Annex1.pdf](#)

**Annex 1 to Certificate of Conformity IECEx DEK 15.0074X, issue 0**  
**Annex to IECEx report NL/DEK/ExTR 15.0099/00**

**Description**

The Load Cell model SLC611 is used to convert a mechanical force or load into an electrical signal. The load cell is of a sealed construction and is provided with a permanently connected cable with a maximum length of 30 m.

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Ex tc IIIC, Ex ia IIIC is applicable for a maximum layer of dust of 5 mm.

**Type designation**

SLC611

**Thermal data**

For gas application, the relation between maximum input power, maximum ambient temperature and temperature class is as listed in the following table:

Temperature class	T6	T5	T4
Maximum input power	$P_i = 0.51 \text{ W}$	$P_i = 0.86 \text{ W}$	$P_i = 1.25 \text{ W}$
Ambient temperature range	-40 °C to +45 °C	-40 °C to +50 °C	-40 °C to +50 °C

**Electrical data**

Signal and supply:  
in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC and Ex ic IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values (combining the parameters of all circuits):  
 $U_i = 25 \text{ V}$ ;  $I_i = 600 \text{ mA}$ ;  $C_i = 6 \text{ nF}$ ;  $L_i = 30 \text{ }\mu\text{H}$ .

The values of  $C_i$  and  $L_i$  include the capacitance and inductance of the permanently connected cable for a length of maximum 30 m. For longer cables the additional capacitance and inductance has to be taken into account (0,2 nF/m and 1  $\mu\text{H/m}$ ).

For the type of protection Ex nA IIC or Ex tc IIIC:

Signal and supply:

$U_n = 25 \text{ V}$

$C_i = 6 \text{ nF}$