



# 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 ITS 12.0018X Issue No: 1 Certificate history:  
Status: **Current** Page 1 of 5 [Issue No. 1 \(2013-07-25\)](#)  
Date of Issue: **2013-07-25** [Issue No. 0 \(2012-03-30\)](#)

Applicant: **Elfab Ltd**  
Alder Road,  
North Shields,  
Tyne & Wear NE29 8SD  
**United Kingdom**

Equipment: **INTEGRAL FLO-TEL 2**  
*Optional accessory:*

Type of Protection: **Intrinsic safety "I"**

Marking: IECEx ITS 12.0018X  
Ex ia IIC Ga  
Ex ia IIIC Da IP66  
Refer to product description for temperature classes and ambient temperatures.

Approved for issue on behalf of the IECEx  
Certification Body:

A T Austin

Position:

Certification Officer

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](#).

Certificate issued by:

**Intertek Testing & Certification Limited**  
ITS House, Cleeve Road,  
Leatherhead,  
Surrey, KT22 7SB  
United Kingdom





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Manufacturer: **Elfab Ltd**  
Alder Road,  
North Shields,  
Tyne & Wear NE29 8SD  
**United Kingdom**

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:

<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 60079-26 : 2006</b> Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

*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:

[GB/ITS/ExTR12.0019/01](#)

Quality Assessment Report:

[GB/ITS/QAR12.0005/00](#)



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## Schedule

### EQUIPMENT:

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

The Integral Flo-Tel 2 is a non-invasive sensing device designed to detect when a bursting disc has operated. The sensor operates when a magnetic field is in close proximity to it. The Integral Flo – Tel comprises a reed switch housed inside a stainless steel tube. An integral cable provides connection facilities to a suitably certified intrinsically safe supply. The sensor is fitted into the holder with a magnet on the rupture disc. When the rupture disc bursts; the rupture disc with its magnet arc away from the sensor, giving an open circuit signal. After rupturing, the disc is the only element that needs replacing. The disc is not covered by this report

There are two alternative permitted installations:

Install 1 Integral Flo-tel 2 (2-wire leadout)

Shall only be connected to a suitably certified intrinsically safe supply that is compatible with the values as stated below when supplied with a two wire lead-out.

If the factory issued terminated wire is removed or damaged then the wire must be terminated in a manner that is at least equal to the original factory installed version in accordance with the requirements of EN60079-14.

Install 2 Integral Flo-tel 2 (3-wire leadout or male or female connector)

Shall only be connected to a suitably certified intrinsically safe supply that is compatible with these values when supplied with a three wire leadout or male or female connector.

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

Clean only with damp cloth

It is the installer's responsibility to provide adequate thermal insulation between probe and the process temperature.

The temperature at the point of installation must not be higher than maximum temperature allowed for specific temperature classes for gas or maximum surface temperature for dust.



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## EQUIPMENT (continued):

Temperature classes and related ambient temperatures for equipment

### Install 1

T6 (T85°C) ( $T_a = -100^\circ\text{C}$  to  $50^\circ\text{C}$ )

T5 (T100°C) ( $T_a = -100^\circ\text{C}$  to  $90^\circ\text{C}$ )

T4 (T135°C) ( $T_a = -100^\circ\text{C}$  to  $125^\circ\text{C}$ )

T3 (T200°C) ( $T_a = -100^\circ\text{C}$  to  $190^\circ\text{C}$ )

Maximum process temperature  $300^\circ\text{C}$

### Install 2

T6 (T85°C) ( $T_a = -100^\circ\text{C}$  to  $75^\circ\text{C}$ )

T5 (T100°C) ( $T_a = -100^\circ\text{C}$  to  $90^\circ\text{C}$ )

T4 (T135°C) ( $T_a = -100^\circ\text{C}$  to  $125^\circ\text{C}$ )

T3 (T200°C) ( $T_a = -100^\circ\text{C}$  to  $185^\circ\text{C}$ )

Maximum process temperature  $300^\circ\text{C}$

Maximum input parameters are as follow:

### Install 1

$U_i = 28\text{V d.c.}$

$I_i = 84\text{mA}$

$P_i = 0.55\text{W}$

$L_i = 0$

$C_i = 0$

### Install 2

$U_i = 3.9\text{V d.c.}$

$I_i = 2\text{mA}$

$P_i = 7.8\text{mW}$

$L_i = 0$

$C_i = 0$



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):**

Issue 1 (June 2013)

Change of maximum process temperature.  
Additional requirements for conditions of certification added.