



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 SIR 11.0159** issue No.:1

Certificate history:
Issue No. 1 (2015-3-26)
Issue No. 0 (2012-4-23)

Status: **Current**

Date of Issue: **2015-03-26**

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Applicant: **Deeter Electronics Limited**
Deeter House, Valley Road
Hughenden Valley, High Wycombe
Bucks, HP14 4LW
United Kingdom

Electrical Apparatus: **Liquid Vertical Continuous Sensor, Flameproof (LVCS FP) and Float Switch, Flameproof (F/S FP)**
Optional accessory:

Type of Protection: **Flameproof and Dust Protection**

Marking: **Ex d IIC T (*) Ga/Gb (or Gb)#1** *Dependent upon process temperature
Ex t IIIC (*)°C Db IP68
Sensor Head Ta = -20°C ≤ Ta ≤ +85°C
Process Temperature range:
≤85°C T5/T100°C
≤125°C T4/T135°C
≤180°C T3/T200°C (LVCS)
≤190°C T3/T200°C (F/S)

Note#1:

EPL Ga/Gb (with the adaptor for mounting across a boundary of two hazardous area zones)
EPL Gb (without the adaptor for mounting across a boundary of two hazardous area zones)
EPL Db (with/without the adaptor for mounting across a boundary of two hazardous area zones)

Approved for issue on behalf of the IECExA G Boyes

Certification Body:

Position: Certification Support Officer

Signature:
(for printed version)

Date:

2015-03-26

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:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION





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Manufacturer: **Deeter Electronics Limited**
Deeter House, Valley Road
Hughenden Valley, High Wycombe
Bucks, HP14 4LW
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:

| | |
|--|--|
| IEC 60079-0 : 2011 Edition: 6.0 | Explosive atmospheres - Part 0: General requirements |
| IEC 60079-1 : 2007-04 Edition: 6 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" |
| IEC 60079-26 : 2006 Edition: 2 | Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga |
| IEC 60079-31 : 2008 Edition: 1 | 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:

GB/SIR/ExTR12.0021/00

GB/SIR/ExTR15.0099/00

Quality Assessment Report:

GB/SIR/QAR12.0004/00



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The LVCS FP (Liquid Vertical Continuous Sensor) and F/S FP (Float Switch) are liquid level sensors with either a continuous analogue or switching output. The equipment is rated for up to 28 Volt use and the F/S FP reed switch having a 50vDc/230VAC 1amp option and comprises of a flameproof, component certified instrument housing with stainless steel level guide which is threaded into the housing. The level guide consists of either an 8mm or 12mm stainless steel tube which contains the sensing electronics. The instrument housing is used for termination and mounting of optional PCBs, depending on the communication and I/O's required. The level guides can be of various lengths and are mounted with up to seven stainless steel floats, each containing a magnetic ring. The equipment can be supplied with an optional threaded adaptor for mounting across a boundary of two hazardous area zones.

When connected to process temperatures above 85°C, the temperature of sensor head must be sufficiently cooled to keep it below 80°C, as detailed in the manufacturer's instructions.

See EQUIPMENT (continued) for further description and Conditions of Manufacture.

CONDITIONS OF CERTIFICATION: NO



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EQUIPMENT(continued):

| Model | Level guide length (mm) | Sensing device | Input/output options | Maximum Process Temperatures (°C) | Cable entry sizes |
|-------|-------------------------|----------------------------|--|-----------------------------------|----------------------|
| LVCS | 100 to 4000 | Reed switch or Hall effect | Optional PCB's for various input/outputs | 180 (T3) 125 (T4) 85 (T5) | M20x 1.5 or 1/2" NPT |
| F/S | 60 to 4000 | Reed switch or Hall effect | Between 1 to 7 I/O float switches, direct output | 190 (T3) 125 (T4) 85 (T5) | M20x 1.5 or 1/2" NPT |

Conditions of Manufacture

The Manufacturer shall comply with the following condition of manufacture:

1. Routine tests on production in accordance with clause 16 of IEC60079-1 to a pressure of at least 5720kPa (57.2 Bar).
2. The products covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of their products.
3. The manufacturer shall inform the user/installer that, when connected to process temperatures above 85°C, the temperature of sensor head must be sufficiently cooled to keep it below 80°C; this information shall be included in the instructions for these products and shall remain constant in subsequent versions of this document.



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

Issue 1 – this Issue introduced the following change:

| | |
|----|---|
| 1. | The Applicant's name was changed from Deeter Engineering Services Limited to Deeter Electronics Limited |
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