



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

Certificate No.: **IECEx BAS 21.0002X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-02-12

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

Equipment: **DCS IS Capacitance Liquid Level Sensor**

Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: Ex ia IIC T4 Ga or Ex ia IIC T3 Ga
Ex ia IIIB T₂₀₀ 145°C Da or Ex ia IIIB T₂₀₀ 200°C Da
See Certificate Schedule for process and ambient temperature Information

Approved for issue on behalf of the IECEx
Certification Body:

Mr R S Sinclair

Position:

Technical Manager

Signature:
(for printed version)

D BREARLEY
Certification
Manager

Date:

12.2.2021

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 www.iecex.com or use of this QR Code.



Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





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

Additional
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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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:

[GB/BAS/ExTR21.0002/00](#)

Quality Assessment Report:

[GB/SIR/QAR12.0004/07](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The DCS IS Capacitive Liquid Level Sensor is designed to measure the level of liquids with a dielectric constant (also known as relative permittivity) and outputs 4-20mA & 0-5V signals indicating the liquid level.

The equipment comprises a stainless steel electronics housing containing an encapsulated main circuit and un-encapsulated terminal / button board. The electronics housing is mounted on a stainless steel Sensor Probe stem of up to 6 metres in length which is secured to the process liquid vessel via a mounting thread or flange with the probe inside the vessel measuring the liquid level. The electronics housing and mounting adapter is electrically insulated from the intrinsically safe circuit and passes the 500V dielectric strength test. The sensor is configured using Zero and Span buttons located inside the electronics housing.

External connections to the equipment are made via a threaded cable entry to screw terminals mounted on the terminal / button board.

The DCS IS Capacitive Liquid Level Sensor can be marked with the following temperature classifications with associated process temperature ranges. When the equipment is installed particular cautions must be taken to ensure, taking into account the effect of process temperature, that the ambient temperature range of the electronics housing of -40°C to $+70^{\circ}\text{C}$ is not exceeded:

Certification Code

Probe Process Temperature Range

Ex ia IIC T4 Ga ($-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$)
Ex ia IIIB T₂₀₀ 145°C Da ($-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$)

-200°C to +125°C

Ex ia IIC T3 Ga ($-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$)
Ex ia IIIB T₂₀₀ 200°C Da ($-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$)

-200°C to +190°C

Input Parameters

$U_i = 25.2\text{V}$ $C_i = 0$

$I_i = 155\text{mA}$ $L_i = 0$

$P_i = 1.2\text{W}$

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When the equipment is installed, particular cautions must be taken to ensure that, taking into account the effect of process temperature, the ambient temperature range of the electronics housing of -40°C to $+70^{\circ}\text{C}$ is not exceeded.
2. Due to the insulated stainless steel Sensor Probe stem forming part of the intrinsically safe circuit, this part of the equipment is not capable of passing the 500V dielectric strength test. This must be taken into account when installing the equipment.