



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.: issue No.: Certificate history:

Status:

Date of Issue: Page 1 of 4

Applicant: **Solid Applied Technologies**
40 Hutzot Hayotzer Street
Ashkelon 78170
Israel

Electrical Apparatus: **GaugerGSM Ultrasonic transducer**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia IIB T4 Ga**
Ta = -30°C to +70°C
Note: IEC 60079-0:2007 Edition 5 was used for guidance in respect of marking

Approved for issue on behalf of the IECEx
Certification Body:

C Ellaby

Position:

Deputy Certification Manager

Signature:
(for printed version)

Date:

2011-10-07

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



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Certificate No.: IECEx SIR 10.0113X
Date of Issue: 2011-10-07 Issue No.: 0
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Manufacturer: **Solid Applied Technologies**
40 Hutzot Hayotzer Street
Ashkelon 78170
Israel

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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 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/SIR/ExTR11.0231/00](#)

Quality Assessment Report:
[GB/SIR/QAR10.0008/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The GaugerGSM is an ultrasonic level meter, operating at 50, 75 or 125 kHz, with an integrated GSM cellular modem and a USB interface. It is designed to measure the distance through gas to the surface of liquids or solids. The GaugerGSM is equipped with a graphic display and keypad. The GaugerGSM transmits measurement information via SMS or GPRS to a cellular phone or cellular PC modem. Internally, the equipment comprises the following printed circuit boards: main board, display board, ultrasonic board, adaptor board, of these, the main and ultrasonic board, as well as the ultrasonic transducer, are encapsulated. The circuitry is housed in a plastic enclosure. There are three supply options as detailed below, see EQUIPMENT (continued) for more information:

1. supplied from associated apparatus
2. supplied from external 3-cell battery pack, IECEx SIR 10.0112X/Sira 10ATEX2236X
3. supplied from external 4-cell battery pack, IECEx SIR 10.0112X/Sira 10ATEX2236X

Condition of Manufacture:

1. For each complete manufactured item that includes an external antenna and/or an external earthing screw, the manufacturer shall perform a dielectric strength test in accordance with IEC 60079-11:2006 clause 10.3: 500 Vac shall be applied for 60 s between the inputs at J2 connected together and the outside of the unit, wrapped in aluminium foil. The foil shall make contact with the antenna and the external earthing screw. There shall be no flashover or breakdown and the maximum current flowing shall not exceed 5 mA. Alternatively, the test may be performed at 600 Vac for 1s. This test is not required where there is neither an external antenna nor an external earthing screw.

CONDITIONS OF CERTIFICATION: YES as shown below:

- 1 The user shall only use generation 2G or 3G SIM cards in the SIM card port.
- 2 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth.



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EQUIPMENT(continued):

Safety Description							
Parameter	Power supply option			RS485	Relay	Temperature	Digital
	1	2	3				
Ui	28 V	11.7 V	15.6 V	5.88 V	30 V	Simple apparatus only	5.88 V
Ii	0.170 A	0.487 A	0.358 A	0.113 A			-
Pi	1.19 W	1.212 W	1.189 W	0.166 W	1.2 W		-
Rs	164.7 Ω	24.07 Ω	43.62 Ω	52.25 Ω			-
Ci	0	0	0	0	0		0
Li	0	0	0	43 μH	0		43 μH
Uo				5.88 V	0		5.88 V
Io				0.113 A			0.007 A
Po				0.166 W		0.214 W	0.010 W
Co				25 nF			25 nF
Lo				100 μH			100 μH