



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 FTZU 18.0012X Issue No: 0 Certificate history:
Issue No. 0 (2018-12-20)

Status: **Current** Page 1 of 3

Date of Issue: **2018-12-20**

Applicant: **Crystal Engineering Corporation**
708 Fiero Lane
Suite 9
San Lius Obispo Ca
United States of America

Equipment: **HPC50 series Intrinsically Safe Handheld Pressure Calibrator**
Optional accessory:

Type of Protection: **Intrinsic safety**

Marking: **Ex ia IIC T4/T3 Ga**

Approved for issue on behalf of the IECEx
Certification Body:

Dipl. Ing. Lukáš Martinák

Position:

Head of the Certification Body

Signature:
(for printed version)

L. Martinák
2018-12-20



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:

Fyzikálně technický zkušební ústav
(Physical - Technical Testing Institute)
Pikartská 7, 71607 Ostrava - Radvanice
Czech Republic





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Certificate No: IECEX FTZU 18.0012X

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Page 2 of 3

Manufacturer: **Crystal Engineering Corporation**
708 Fiero Lane
Suite 9
San Luis Obispo Ca
United States of America

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 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 : 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 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:

[CZ/FTZU/ExTR18.0016/00](#)

Quality Assessment Report:

[NL/DEK/QAR13.0030/03](#)





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Certificate No: IECEX FTZU 18.0012X

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Date of Issue: 2018-12-20

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The product HPC50 Series intrinsically safe handheld pressure calibrator is designed for measuring of gas pressure, temperature, current and voltage. The device can be equipped with one or two internal pressure sensors, two interfaces for connection external pressure sensors or temperature sensors and with two sockets for current or voltage measuring. The apparatus is supplied by three size AA (LR6) primary cells. The pressure module APMi and the temperature module ATMi with RTD probe are parts of product.

Intrinsic safe parameters

mAV port

$U_i = 28\text{ V}$; $I_i = 93\text{ mA}$; $P_i = 653\text{ mW}$; $C_i = 3\text{ nF}$; $L_i = 0$

AxMi ports

$U_o = 4.95\text{ V}$; $I_o = 731\text{ mA}$; $P_o = 880\text{ mW}$; $C_i = 83.5\text{ uF}$; $L_i = 32.2\text{ uH}$; $C_o = 9.2\text{ uF}$; $L_o = 12\text{ uH}$

Ambient temperature:

$T_a = -20^\circ\text{C}$ to $+50^\circ\text{C}$

SPECIFIC CONDITIONS OF USE: YES as shown below:

Permissible cell types:

Type of Cell	Producer	Temperature Class
Rayovac Max Plus 815	Rayovac Corporation	T4
Energizer E91	Energizer Holdings Inc	T4
Energizer EN91	Energizer Holdings Inc	T3
Duracell MN1500	DURACELL BATTERIES	T3

