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 LCI 08.0019X**

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Certificate history:

Issue 2 (2015-04-27)
Issue 1 (2009-12-15)
Issue 0 (2008-05-05)

Status: **Current**

Issue No: 3

Date of Issue: 2019-07-24

Applicant: **ABB Inc.**
3567 Jefferson Street North
Lewisburg, WV 2490
United States of America

Equipment: **PIR3502 / PUV3402 Process Photometer**

Optional accessory:

Type of Protection: **Ex d, Ex ib, Ex px**

Marking: ABB Inc.

Type:... Serial number:... Year of manufacture:...

IECEx LCI 08.0019X

Ex db [ib] ib pxb IIB+H2 T4...T2

For complete marking see attached document " Annex 00 to certificate IECEx LCI 08.0019 X issue 03"

Approved for issue on behalf of the IECEx Certification Body: **Julien Gauthier**

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

Certificate issued by:

Laboratoire Central des Industries Electriques (LCIE)
33 Avenue du General Leclerc
Fontenay-aux-Roses FR-92260
France

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Certificate No.: **IECEx LCI 08.0019X**

Date of issue: 2019-07-24

Issue No: 3

Manufacturer: **ABB Inc.**
3400 Rue Pierre-Ardouin
Québec, QC G1P 0B2
Canada

Additional manufacturing locations: **ABB Inc.**
3567 Jefferson Street North
Lewisburg, WV 24901
United States of America

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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1:2007-04 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6

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

IEC 60079-2:2007-02 Explosive Atmospheres - Part 2 Equipment protection by pressurized enclosure "p"
Edition:5

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 Reports:

FR/LCI/ExTR08.0025/00 FR/LCI/ExTR08.0025/01 FR/LCIE/ExTR19.0055/00

Quality Assessment Reports:

NL/DEK/QAR11.0055/05 NL/DEK/QAR12.0049/08

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The PIR3502 and PUV3402 process photometers provide on-line measurements of gas or liquid components in process stream. The device comprises three enclosures : the Source, Detector and Purge Controller. Mounted between the Source and Detector enclosures is the sample cell. The gas stream is passed through the sample cell and IR or UV light passes through the cell from the Source to the Detector, thereby analysing the moisture in the gas.

The PIR3502 / PUV3402 Process Photometer, is pressurized with ‘px’ protection. An “X-Purge box”, mounted below the detector enclosure, is a flameproof enclosure ‘d’ and included the pressurisation control system.

Routine test:

See details in attached document " Annex 00 to certificate IECEx LCI 08.0019 X issue 03"

SPECIFIC CONDITIONS OF USE: YES as shown below:
- The maximum cable length is 3,05 m for the Pressure sensor and 1,22 m for the Temperature Probe.

- Do not expose the equipment to direct light.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Issue 01 :
Correction of the specified maximum overpressure in the marking from 2,5 mbar to 7,5mbar (Typo mistake)
Issue 02:
Normative update
Correction of the maximum leakage flow rate in the marking from 12,7 l/min to 47 l/min (typo mistake)
Remove the "e" in the marking as the equipment is not protected by increased safety (typo mistake)
Issue 03:
Modification of applicant and manufacturer address.
Addition of manufacturing location.
Modification of QAR reference.
Update of specific conditions of use.
No technical change.

Annex:

IECEx LCI 08.0019 X Issue 03_annex 00.pdf

Annex 00 to Certificate
IECEx LCI 08.0019 issue 03

FULL EQUIPMENT DESCRIPTION

The PIR3502 / PUV3402 Process Photometer, is pressurized with 'px' protection. An "X-Purge box", mounted below the detector enclosure, is a flameproof enclosure 'd' and included the pressurization control system.
"X-Purge box" are bought by ABB already certified and guaranty a correct design by their own manufacturer.

X-purge box related component certificate is given in the table below:

Components	Type	Manufacturer	IECEX certificate	IEC standards
Empty Flameproof Enclosures	XJ series	ADALET/Scott Fetzer Co.	IECEX UL 13.0039U	IEC 60079-0 Ed.6.0 IEC 60079-1 Ed.6 IEC 60079-31 Ed.1

MARKING

ABB Inc
Type
Serial number
Year of manufacture
IECEx LCI 08.0019 X
Ex db [ib] ib pxb IIB+H2 T4…T2 *****
Protective gas : Continuous flow, air
Total internal free volume : 42 l
Minimum air supply flow rate : 30 l/min
Minimum overpressure : 0,5 mbar
Maximum leakage flow rate : 47 l/min
Maximum overpressure : 7,5 mbar
Purge wait time : 22 min at 50 Hz
19 min at 60 Hz
Ambient temperature : 0 to 45°C
WARNING – PRESSURIZED ENCLOSURE
WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT
WARNING – DO NOT OPEN WHEN ENERGIZED
WARNING – AFTER DE-ENERGIZING, DELAY X MINUTES BEFORE OPENING
WARNING – WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

***** T° class may be :
T2 if the optional higher temperature cell heater is installed,
T3 if the optional lower temperature cell heater is installed,
T4 if the cell heater is not installed

RANGE DETAILS

Model/type reference:
PIR3502 – Process IR photometer
PUV3402 – Process UV photometer
Dimensions:
10 in. W x 10 in. D x 13 in. H
(250 mm W x 250 mm D x 330 mm H)

RATINGS

115/230 Vac, 690 VA max

ROUTINE TESTS

- According to clause 17.1 of standard IEC 60079-2 each apparatus shall be submitted to a functional test of the performance of safety devices.
- According to clause 17.2 of standard IEC 60079-2 each apparatus shall be submitted to the leakage test.

ADDITIONAL MANUFACTURING LOCATIONS

ABB Inc.
3567 Jefferson Street North
Lewisburg, WV 24901
United States of America