



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 UL 10.0025X** issue No.: **0** Certificate history:

Status: **Current**

Date of Issue: **2011-01-18** Page 1 of 4

Applicant: **ABB Inc.**
Process Automation Division
843 N. Jefferson Street
Lewisburg, WV 24901
United States of America

Electrical Apparatus: **Flameproof Reid Vapor Pressure Analyzers**
Optional accessory:

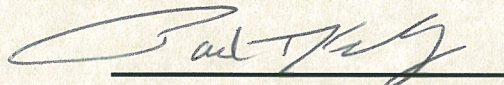
Type of Protection: **Flameproof "d"**

Marking: **Ex d IIB + H2 T6**

Approved for issue on behalf of the IECEx Certification Body: Paul T. Kelly

Position: Principal Engineer, Global Hazardous Locations

Signature:
(for printed version)


2011-1-18

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.

Certificate issued by:

Underwriters Laboratories Inc (UL)
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





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Manufacturer: **ABB Inc.**
Process Automation Division
843 N. Jefferson Street
Lewisburg, WV 24901
United States of America

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 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
Edition: 4.0

IEC 60079-1 : 2003 Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
Edition: 5

*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:

US/UL/ExTR10.0033/00

Quality Assessment Report:

NL/KEM/QAR09.0015/00



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Series RVP4500 Analyzer operates unattended, automatically sampling and measuring the Reid Vapor Pressure of process samples that are pure substances (e.g., hexane or pentane) or mixtures (e.g., gasoline). The Series RVP4500 Analyzer devices consist of a controller housing and analyzer housing, both certified flameproof enclosures, connected by a metallic 2" NPT bushing filled with cement.

The controller housing has three certified flameproof selector switches located under the enclosure window and houses a control PCB, 24 V power supply, and operator interface mounted to the enclosure door. The analyzer housing contains the RVP subassembly and may contain an optional air saturation subassembly. The air saturation subassembly contains the aeration cell, terminal strips, and six solenoid valves that control the flow into and out of the aeration cell. The RVP subassembly contains the sample measuring cell, terminal strips, and solenoid valves that control the flow into and out of the measuring cell. The sample handling system is located below the analyzer housing, with capillaries entering and exiting via a maximum of 5 ABB flame arrestors, Cat. Nos. 758A009B and 758W005.

CONDITIONS OF CERTIFICATION: YES as shown below:

- All unused openings must be fitted with certified flameproof blanking elements and have a minimum gas marking equal to the marking on the device.
- When installing cable glands, they must be certified as flameproof and have a minimum gas marking equal to the marking on the device.
- When installing conduit sealing fittings (stopping box), they must be certified as flameproof and have a minimum gas marking equal to the marking on the device.
- Any adapters used must be certified as flameproof and have a minimum gas marking equal to the marking on the device.



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EQUIPMENT(continued):

The RVP4500 (low pressure) and RVP4503 (extended pressure) are identical, internally with only the RVP output range being different. The RVP4550 Air Saturation Analyzer (low pressure) is the RVP4500 (low pressure) that is equipped with an optional air saturation unit used to mix substances internally. Additionally, the RVP4501 (high pressure) has a different transducer than that used in the RVP4500 and RVP4503. The RVP 4540 (LG gas pressure) has a different transducer and analytical cell than those use in the RVP4500.

Nomenclature:

RVP 4500 Series:

Model RVP4500 (Low Pressure)	- 25 PSI
Model RVP4501 (High Pressure)	- 40 PSI
Model RVP4503 (Extended Pressure)	- 25 PSI
Model RVP4540 (LG Gas Pressure)	-225 PSI
Model RVP4550 (Low Pressure, Air Saturation Option)	- 45 PSI

Electrical Data:

Supply Voltage: 100-240 Vac, 50/60 Hz, 250 VA

Routine Tests:

Routine tests according to IEC 60079-1, Clause 16.1, are required at 129 psi on the ABB flame arrestors, Cat. Nos. 758A009B and 758W005, due to their welded construction.