

Certificate No.:

IECEx Certificate of Conformity

Issue No: 13

Certificate history:

Issue No. 2 (2007-10-18) Issue No. 1 (2007-10-15)

Issue No. 0 (2007-10-05)

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

			Issue No. 13 (2013-11-06)
Status:	Current	Page 1 of 5	Issue No. 12 (2013-01-15)
			Issue No. 11 (2012-03-13)
Date of Issue:	2013-11-06		Issue No. 10 (2012-02-02)
			Issue No. 9 (2012-01-09)
Applicant:	Mine Safety Appliances		Issue No. 8 (2011-07-19)
	1000 Cranberry Woods Drive		Issue No. 7 (2010-09-14)
	Cranberry Township, PA 16066		Issue No. 6 (2009-09-14)
	United States of America		Issue No. 5 (2009-02-27)
			Issue No. 4 (2008-11-12)

Electrical Apparatus: Ultima X Series Controller, Ultima XE Sensor, Ultima XI Sensor, Ultima XIR Issue No. 3 (2008-07-21)

Sensor

Optional accessory: Refer to Equipment section of this certificate.

IECEx FMG 07.0006X

Construction, Test and Marking of type of protection "d", "n", "ia" and "[ib]"

Marking: Refer to annex.

Approved for issue on behalf of the IECEx

Certification Body:

Type of Protection:

J.E.Marquedant

Position:

Group Manager, Electrical

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 the Official IECEx Website.

Certificate issued by:

FM Approvals LLC 1151 Boston-Providence Tumpike Norwood, MA 02062 United States of America





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Manufacturer: Mine Safety Appliances

1000 Cranberry Woods Drive Cranberry Township, PA 16066 **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 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: 2007-10 Explosive atmospheres - Part 0:Equipment - General requirements

Edition:5

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

Edition: 5

IEC 60079-11 : 2006 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:5

IEC 60079-15 : 2005-03 Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and Marking of Type of

Edition:3 Protection "n" electrical apparatus

IEC 60079-29-1 : 2007 Explosive Atmospheres - Part 29-1: Gas Detectors - Performance requirements of detectors for

Edition:1 flammable gases

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/FMG/ExTR07.0004/00
 US/FMG/ExTR07.0011/00
 US/FMG/ExTR08.0007/00

 US/FMG/ExTR08.0007/01
 US/FMG/ExTR08.0009/00
 US/FMG/ExTR08.0009/06

 US/FMG/ExTR08.0009/08
 US/FMG/ExTR08.0009/09
 US/FMG/ExTR08.0009/10

 US/FMG/ExTR08.0009/12
 US/FMG/ExTR08.0009/13

Quality Assessment Report:

FR/INE/QAR08.0011/03



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Controllers: Ultima XL, Ultima XE Main

Sensors: Ultima XE Sensor, Ultima XI Sensor, Ultima XIR Sensor

Accessories: Ultima Calibrator, Ultima Controller, Ultima XE Sensor Weather/Wind/Sensor Guard P/N 10028904, Ultima XI and Ultima XIR Environmental Guard P/N 10041265, Ultima X Power Supply, HART Module

CONDITIONS OF CERTIFICATION: YES as shown below:

1) Upon installation of the Ultima XL Control Unit, the label shall be permanently marked to show the type of explosion protection used for the installation. 2) The Ultima X Control Unit complies with IEC 61779-1 and IEC 61779-4 when connected to a Detector Head that also has been evaluated to IEC 61779-1 and IEC 61779-4. 3) The Ultima XE Sensor, Ultima XI Sensor, and Ultima XIR Sensor complies with IEC 61779-1 and IEC 61779-4 when connected to a Control Unit that also has been evaluated to IEC 61779-1 and IEC 61779-4. 4) The Ultima XI Sensor and Ultima XIR Sensor comply with IEC 60079-29-1 when connected to a Control Unit that also has been evaluated to IEC 60079-29-1. 5) The Ultima XI Sensor shall be connected directly to a junction box or instrument suitable for the area of installation to provide protection for the flying leads. 6) The Ultima XE Sensor and the Ultima XIR Sensor shall be connected directly to an Ultima X Series Control Unit or remote junction box.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

change to new relay part since old one was disconitnued and firmware update.



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Additional information:

Annex: IECEx FMG 07.0006X provides marking information.

Annex:

IECEx FMG 07.0006X Annex.pdf

FM Approvals LLC 1151 Boston-Providence Turnpike Norwood, MA 02062 United States of America



ANNEX to IECEx FMG 07.0006X Issue No. 4

<u>Marking</u>

Ultima XL with XP Port:

Ex d [ib] IIC T6 Ta = -40 $^{\circ}$ C to +60 $^{\circ}$ C IP66 Ex nA [ib] IIC T6 Ta = -40 $^{\circ}$ C to +60 $^{\circ}$ C IP66 IECEx FMG 07.0006X

Ultima XL without XP Port:

Ex d IIC T6 Ta = -40 °C to +60 °C IP66 Ex nA IIC T6 Ta = -40 °C to +60 °C IP66 IECEx FMG 07.0006X

Ultima XE Main with XP Port:

Ex d [ib] IIC T4 Ta = -40 $^{\circ}$ C to +60 $^{\circ}$ C IP66 IECEx FMG 07.0006X

Ultima XE Main without XP Port:

Ex d IIC T4 Ta = -40 °C to +60 °C IP66 IECEx FMG 07.0006X

Ultima XE Sensor:

Ex d IIC T4 Ta = -40 °C to +60 °C IP66 IECEx FMG 07.0006X

Ultima XI Sensor:

Ex d IIC T5 Ta = -40 °C to +60 °C IP66 IECEx FMG 07.0006X

Ultima XIR Sensor:

Ex d IIC T5 Ta = -40 $^{\circ}$ C to +60 $^{\circ}$ C IP66 IECEx FMG 07.0006X

HART Module:

Ex d IIC T5 Ta = -40 °C to +60 °C IP66 IECEx FMG 07.0006X

Ultima X Power Supply:

Ex d IIC T4 Ta = -40 °C to +60 °C IP66 IECEx FMG 07.0006X

Ultima Calibrator

Ex ia IIC T3 IECEx FMG 07.0006X

Ultima Controller:

Ex ia IIC T3 IECEx FMG 07.0006X