

Addendum to  
**ULTIMA® X5000 Gas Monitor System**  
Operating Manual 10177361



Order No.: 10182779/02  
Print Spec.: 10000005389(A)

## Certification and Markings

**Manufacturer:** MSA THE SAFETY COMPANY  
**Address:** 1000 Cranberry Woods Drive, Cranberry Township, PA 16066 USA

**Product:** ULTIMA® X5000 GAS MONITOR consisting of an ULTIMA® X5000 MAIN TRANSMITTER, optional DIGITAL SENSOR, optional ULTIMA® XIR PLUS, optional X5000 JUNCTION BOX.

## Certification and Markings

Certificate of Compliance (USA & Canada): 70116284 (LR 064969\_0\_000)  
 EU – Type Examination Certificate: Sira 17ATEX1049X and Sira 17ATEX4239X  
 IECEx Certificate of Conformity: IECEx SIR 17.0017X

Quality Assurance Notification: 0080  
 Year of Manufacture: See serial number  
 Serial No.: See label

## STANDARDS: HAZARDOUS LOCATIONS AND GAS PERFORMANCE

ULTIMA® X5000 GAS MONITOR SYSTEM	USA	CANADA	ATEX*	IECEx
ULTIMA® X5000 MAIN TRANSMITTER	ANSI/IEC 60529-2004 (r. 2011) ANSI/ISA 61010-1 (82.02.01) Ed. 3 ANSI/ISA-60079-0 (12.00.01)-2013 ANSI/ISA-60079-29-1 (12.13.01)-2013 ANSI/UL 50 Ed. 13 ANSI/UL 50E Ed. 2 ANSI/UL 60079-1(12.22.01)-2013 ANSI/UL 60079-31(12.10.03)-2015 FM Class 3600:2011 FM Class 3615:2006 FM Class 3616:2011 FM Class 3810:2005	C22.2 No. 0-10 C22.2 No. 25-1966 C22.2 No. 30-M1986 C22.2 No. 60079-0:15 C22.2 No. 60079-1:16 C22.2 No. 61010-1-12 CAN/CSA C22.2 No. 60079-31:15 CAN/CSA C22.2 No. 60529:05 (r. 2015) CAN/CSA C22.2 No. 94.1-15 CAN/CSA C22.2 No. 94.2-15 CSA C22.2 No. 152-M1984	EN 60079-0:2012/ A11:2013 EN 60079-1:2014 EN 60079-29-1:2007 EN 60079-31:2014 Ed. 2	IEC 60079-0:2011 Ed. 6 IEC 60079-1:2014 Ed. 7 IEC 60079-29-1:2007 Ed. 1 IEC 60079-31:2013 Ed. 2
X5000 JUNCTION BOX	ANSI/IEC 60529-2004 (r. 2011) ANSI/ISA 61010-1 (82.02.01) Ed. 3 ANSI/ISA-60079-0 (12.00.01)-2013 ANSI/ISA-60079-29-1 (12.13.01)-2013 ANSI/UL 50 Ed. 13 ANSI/UL 50E Ed. 2 ANSI/UL 60079-1(12.22.01)-2013 ANSI/UL 60079-31(12.10.03)-2015 FM Class 3600:2011 FM Class 3615:2006 FM Class 3616:2011 FM Class 3810:2005	C22.2 No. 0-10 C22.2 No. 25-1966 C22.2 No. 30-M1986 C22.2 No. 60079-0:15 C22.2 No. 60079-1:16 C22.2 No. 61010-1-12 CAN/CSA C22.2 No. 213-2015 CAN/CSA C22.2 No. 60079-31:15 CAN/CSA C22.2 No. 60529:05 (r. 2015) CAN/CSA C22.2 No. 94.1-15 CAN/CSA C22.2 No. 94.2-15 CSA C22.2 No. 152-M1984	EN 60079-0:2012/ A11:2013 EN 60079-1:2014 EN 60079-15:2010 EN 60079-29-1:2007 EN 60079-31:2014 Ed. 2	IEC 60079-0:2011 Ed. 6 IEC 60079-1:2014 Ed. 7 IEC 60079-15:2010 Ed. 4 IEC 60079-29-1:2007 Ed. 1 IEC 60079-31:2013 Ed. 2
DIGITAL SENSOR	ANSI/UL 50 ANSI/UL 50E ANSI/UL 60079-1(12.22.01)-2013 ANSI/UL 60079-31(12.10.03)-2015 FM Class 3600 December 2011 FM Class 3615 August 2006 FM Class 3616 December 2011	C22.2 No. 60079-1:16 CAN/CSA C22.2 No. 25-1966 CAN/CSA C22.2 No. 30-1986 CAN/CSA C22.2 No. 60079-31:15	EN 60079-0:2012/ A11:2013 EN 60079-1: 2014 Ed. 7 EN 60079-29-1:2007 EN 60079-31: 2013 Ed. 2	IEC 60079-0:2011 Ed. 6 IEC 60079-1: 2014 Ed. 7 IEC 60079-29-1:2007 Ed. 1 IEC 60079-31: 2013 Ed. 2 IEC 60529:2013
ULTIMA XIR PLUS	ANSI/UL 60079-0 ANSI/UL 60079-1 (12.22.01)-2013 ANSI/UL 61010-1 UL 1203	C22.2 No. 0-10 C22.2 No. 25-1966 C22.2 No. 30-M1986 C22.2 No. 60079-0 C22.2 No. 60079-1:16 C22.2 No. 61010-1-12	EN 60079-0:2012/ A11:2013 EN 60079-1: 2014 Ed. 7 EN 60079-29-1:2007	IEC 60079-0:2011 Ed. 6 IEC 60079-1:2014 Ed. 7 IEC 60079-29-1:2007 Ed. 1

\*For additional applicable standards refer to the EU Declaration of Conformity, document number 10000094287.

## HAZARD LOCATIONS

ULTIMA <sup>®</sup> X5000 GAS MONITOR SYSTEM	USA	CANADA	ATEX	IECEX
ULTIMA <sup>®</sup> X5000 MAIN TRANSMITTER	Class I, Division 1, Groups A, B, C, D; T5 Class II, Division 1, Groups E, F, G; T6; Class III  Class I, Zone 1, AEx db IIC T5 Gb Zone 21, AEx tb IIIC T85 °C Db	Class I, Division 1, Groups A, B, C, D; T5 Class II, Division 1, Groups E, F, G; T6; Class III  Ex db IIC T5 Gb Ex tb IIIC T85 °C Db	II 2G Ex db IIC T5 Gb II 2D Ex tb IIIC T85 °C Db -40 °C < Ta < +60 °C	Ex db IIC T5 Gb Ex tb IIIC T85 °C Db -40 °C < Ta < +60 °C
X5000 JUNCTION BOX (P/N's 10179509, 10179511, 10179513, ordered separately) - Certified Ex Equipment	Class I, Division 1, Groups A, B, C, D; T6 Class I, Division 2, Groups A, B, C, D; T6 Class II, Division 1, Groups E, F, G; T6; Class III  Class I, Zone 1, AEx db IIC T6 Gb Class I, Zone 2, AEx nA IIC T6 Gc Zone 21, AEx tb IIIC T85 °C Db	Class I, Division 1, Groups A, B, C, D; T6 Class I, Division 2, Groups A, B, C, D; T6 Class II, Division 1, Groups E, F, G; T6; Class III  Ex db IIC T6 Gb Ex nA IIC T6 Gc Ex tb IIIC T85 °C Db	II 2G Ex db IIC T6 Gb II 3G Ex nA IIC T6 Gc II 2D Ex tb IIIC T85 °C Db -40 °C < Ta < +60 °C	Ex db IIC T6 Gb Ex nA IIC T6 Gc Ex tb IIIC T85 °C Db -40 °C < Ta < +60 °C
DIGITAL SENSOR - Certified Ex equipment	Class I, Division 1, Groups A, B, C, D; T5 Type 3X  Class I, Zone 1, AEx db IIC T4 Gb IP65	Class I, Division 1, Groups A, B, C, D; T5 Type 3X  Ex db IIC T4 Gb IP65	II 2G Ex db IIC T5 Gb IP65 -55 °C < Ta < +60 °C	Ex db IIC T5 Gb IP65 -55 °C < Ta < +60 °C
ULTIMA XIR PLUS - Certified Ex equipment	Class I, Division 1, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III; T4  Class I, Zone 1, AEx db IIC T4 Gb	Class I, Division 1, Groups B, C and D; Class II, Division 1, Groups E, F and G; Class III; T4  Ex db IIC T4 Gb	II 2G Ex db IIC T5 Gb -40 °C < Ta < +60 °C	Ex db IIC T5 Gb -40 °C < Ta < +60 °C

## PERFORMANCE

ULTIMA <sup>®</sup> X5000 GAS MONITOR SYSTEM	USA	CANADA	ATEX	IECEX
ULTIMA <sup>®</sup> X5000 MAIN TRANSMITTER				
X5000 JUNCTION BOX (P/N's 10179509, 10179511, 10179513, ordered separately) - Certified Ex Equipment				
DIGITAL SENSOR - Certified Ex equipment. In order to maintain the combustible performance of the system this must be connected to the ULTIMA <sup>®</sup> X5000 MAIN TRANSMITTER or to the ULTIMA <sup>®</sup> X5000 MAIN TRANSMITTER through the X5000 JUNCTION BOX			Combustible: Methane, Propane Measuring Range: 0-100% LEL	
ULTIMA XIR PLUS - Certified Ex equipment. In order to maintain the combustible performance of the system this must be connected to the ULTIMA <sup>®</sup> X5000 MAIN TRANSMITTER or to the ULTIMA <sup>®</sup> X5000 MAIN TRANSMITTER through the X5000 JUNCTION BOX				



**WARNING!**

READ AND UNDERSTAND ALL INSTRUCTIONS, WARNINGS AND CAUTIONS PRIOR TO INSTALLATION OF ANY COMPONENTS OF THIS SYSTEM.

FOR SAFETY REASONS THIS EQUIPMENT MUST BE OPERATED AND SERVICED BY QUALIFIED PERSONNEL ONLY. DO NOT OPERATE THIS EQUIPMENT UNTIL AFTER THE INSTRUCTION MANUAL IS READ AND UNDERSTOOD FOR PROPER INSTALLATION AND OPERATION.

REFER TO CERTIFICATION FOR SPECIFIC OR SPECIAL CONDITIONS OF USE.

**FIRE AND SHOCK HAZARDS**

LIVE CIRCUITS BEHIND COVER, DISCONNECT OR OPEN THE CIRCUIT BEFORE REMOVING THE COVER TO THE ULTIMA® X5000 MAIN TRANSMITTER OR X5000 JUNCTION BOX AND DO NOT SEPARATE PLUGGABLE CONNECTORS WHEN ENERGIZED.

**HAZARDOUS LOCATIONS HAZARDS**

SEALING REQUIREMENTS: AN EXPLOSION-PROOF SEAL SHALL BE INSTALLED WITHIN 2 in (50 MM) OF THE ENCLOSURE OF THE ULTIMA® X5000 MAIN TRANSMITTER OR X5000 ALUMINUM JUNCTION BOX WHEN INSTALLED IN A HAZARDOUS AREA.

ALL WIRING TO OR FROM THIS DEVICE, MUST UTILIZE WIRING METHODS SUITABLE FOR THE AREA CLASSIFICATION AND APPLICABLE PROTECTION METHODS AS APPROPRIATE FOR THE INSTALLATION AND IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

DO NOT OPEN WHEN ENERGIZED OR WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.

UNDER CERTAIN EXTREME CIRCUMSTANCES, THE NON-METALLIC PARTS INCORPORATED IN THE ENCLOSURE OF THIS EQUIPMENT MAY GENERATE AN IGNITION-CAPABLE LEVEL OF ELECTROSTATIC CHARGE.

POTENTIAL ELECTROSTATIC CHARGING HAZARD. CLEAN EQUIPMENT ONLY WITH DAMP CLOTH. THE FLAMEPROOF JOINTS SHALL NOT BE REPAIRED.

**COMBUSTIBLE PERFORMANCE**

THIS FIXED EQUIPMENT APPARATUS IS EXCLUSIVELY DESIGNED FOR FIELD MOUNTING IN THE VERTICAL ORIENTATION WITH RESTRICTIONS PLACED AROUND THE CONDUIT ENTRY LOCATIONS PERMITTED FOR CONNECTION OF THE BOTH THE DIGITAL SENSOR AND ULTIMA® XIR PLUS INFRARED (IR) SENSORS. THE EQUIPMENT IS SUBJECT TO THE INSTALLATION AND ORIENTATION REQUIREMENTS DEFINED IN THE PRODUCT MANUAL.

NO INGRESS PROTECTION CLAIMS ARE MADE FOR COMBUSTIBLE GAS DETECTION PERFORMANCE.

NOT PERFORMANCE APPROVED FOR CLASS II, CLASS III, ZONE 21. THE DIGITAL SENSOR MAY BECOME CLOGGED AND NOT DETECT GAS OR WARN USER OF INABILITY TO DETECT GAS.

DURING CALIBRATION THE AREA MUST BE FREE OF FLAMMABLE GASES.

A HIGH OFF-SCALE READING MAY INDICATE AN EXPLOSIVE CONCENTRATION OF COMBUSTIBLE GAS.

THE DIGITAL SENSOR AND ULTIMA® XIR PLUS SENSORS DESIGNED FOR EXCLUSIVE USE WITH THE ULTIMA® X5000 GAS MONITOR SYSTEM.

THE ULTIMA® X5000 GAS MONITOR FIXED GAS DETECTION SYSTEM COMPLIES WITH EN 50271 (CLAUSE 4.8, SAFETY INTEGRITY ASSESSMENT EXCLUDED FROM THE ASSESSMENT).

USE OF SOME ACCESSORIES ARE NOT COVERED UNDER THE PERFORMANCE APPROVAL, CONTACT MSA FOR DETAILS.

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