

# CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM16US0275  
3. **Equipment:** AV10\*\*\*\*\*, AutoVu® AV10 Universal Display Unit  
(Type Reference and Name)

4. **Name of Listing Company:** Autronica Fire and Security AS

5. **Address of Listing Company:** Bromstadveien 59  
7483 Trondheim  
Norway

6. The examination and test results are recorded in confidential report number:

3050447 dated 27<sup>th</sup> January 2014

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2011, FM Class 3611:2004, FM Class 3615:2006, FM Class 3810:2005, FM Class 6320:2014, FM 6325:2005, ANSI/ISA 92.0.01:1998, ANSI/ISA-92.00.01:2010, UL 60079-0:2013, ANSI/ISA 60079-1:2013, ANSI/ISA 60079-29-1 (12.13.01):2013, ANSI/NEMA 250:1991, ANSI/IEC 60529:2004

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

**Certificate issued by:**

J. E. Marquedant  
Manager, Electrical Systems

15 January 2017

Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA  
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: [information@fmapprovals.com](mailto:information@fmapprovals.com) [www.fmapprovals.com](http://www.fmapprovals.com)

# SCHEDULE

US Certificate Of Conformity No: FM16US0275

10. Equipment Ratings:

**AV10** - Suitable for installation in Class I, Division 1 and 2, Groups B, C, and D; Class I, Zone 1 and 2 Group IIC; Class II/III Division 1 and 2 Groups E, F, G Hazardous (Classified) Locations, indoor and outdoor (Type 4X / IP66).

11. The marking of the equipment shall include:

**AV10:**

Class I Division 1, Groups B, C, D; Class I Division 2, Groups B, C, D; T4

Class I, Zone 1, AEx d IIC T5

Class II/III, Division 1/2, Groups E, F, G

NEMA TYPE 4X, IP66

-50°C ≤ Tamb ≤ +75°C

12. **Description of Equipment:**

Stationary Single Channel 4-20 mA or HART standalone Combustible or Toxic Gas Detector Control Unit. The AutoVu® Universal Display AV10 is suitable for installation in Class I, Division 1 and 2, Groups B, C, and D; Class I, Zone 1 and 2 Group IIC; Class II/III Division 1 and 2 Groups E, F, G Hazardous (Classified) Locations, indoor and outdoor (Type 4X / IP66). The AV10 Universal Display monitors FM Approved combustible gas detectors and sensors which monitor 0-100% LFL or 0 - 5 LFL-m gas-in-air atmospheres, FM Approved toxic gas sensors which monitor up to 9999 PPM gas-in-air atmospheres and 0-25 percent oxygen concentration. The control unit communicates with the detector head via a 4-20 mA signal with or without HART. The control unit provides a Relay, 4-20mA, and HART output with Modbus communication. Outputs include four relays for alarm and trouble signals. The operating temperature range of the apparatus is -50°C to +75°C and operating voltage range for the entire system is 18-30 VDC, 7 watts maximum. In addition, the apparatus complies with FM6320:2014, Approval Standard for Combustible Gas Detectors; ANSI/ISA-60079-29-1 (12.13.01):2013, Explosive Atmospheres – Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases; ANSI/ISA-92.00.01:2010, Performance Requirements for Toxic Gas Detectors; FM6325:2005, Performance Requirements for Combustible Open Path Gas Monitors; ANSI/ISA-12.13.04:2007, Performance Requirements for Open Path Combustible Gas Detectors. The AV10 with NTMOS complies with the requirements of ISA-92.0.01, Part I-1998.

**AV10abc25d2e, AutoVu® Universal Display Unit**

a = Enclosure Type: A or S

b = Number of ports: 2, 3, 4, or 5

c = Thread Type: E, F, M or N

d = Approval: A, F, S, T or W (one or more letters may be used)

e = Optional Conditioning board: N or blank

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: [information@fmaprovals.com](mailto:information@fmaprovals.com) [www.fmaprovals.com](http://www.fmaprovals.com)

# SCHEDULE

US Certificate Of Conformity No: FM16US0275

**Specifications** - The manufacturer's specifications are as follows:

Operating Temperature: -50°C to +75°C  
 Storage Temperature: -55°C to +75°C  
 Relative Humidity: 5 to 95% RH  
 Supply Parameters: 18-30 VDC, 7 watts maximum  
 Measurement Signal: 4-20mA  
 Calibration: magnet or HART

**13. Specific Conditions of Use:**

None.

**14. Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

**15. Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

**16. Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
27 <sup>th</sup> January 2014	Original Issue.
15 <sup>th</sup> January 2017	<u>Supplement 1:</u> Report Reference: – 3057413 dated 15 <sup>th</sup> January 2017 Description of the Change: 1) Firmware update. 2) ANSI/ISA 60079-0:2005 was updated to UL 60079-0:2013. 3) ANSI/ISA 60079-1:2005 was updated to ANSI/ISA 60079-1:2013. 4) FM 6325 and ANSI/ISA 12.13.04:2007 were added (incorrectly omitted on previous versions). 5) Updated to the new certificate format.

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**