

CERTIFICATE OF CONFORMITY



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

2. **Certificate No:** FM16US0276

3. **Equipment:** Model AutoVu® AV10/CGS Gas Detector
(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 27th 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, 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.

10. Equipment Ratings:

AV10/CGS - Suitable for installation in Class I, Division 1 and 2, Groups B, C, and D Hazardous (Classified) Locations. With a remote CGS sensor the AV10 display/control unit maintains Class II/III Division 1 and 2 Groups E, F, G and (Type 4X / IP66).

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

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 www.fmapprovals.com

SCHEDULE

US Certificate Of Conformity No: FM16US0276

11. The marking of the equipment shall include:

AV10/CGS:

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

$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +75$

CGS (sensor only):

EXPLOSIONPROOF FOR CL 1, DIV 1, GRPS B,C,D

$T_{\text{amb}} = -40^{\circ}\text{C}$ to $+75^{\circ}\text{C}$

CONDUIT SEAL NOT REQUIRED.

ACIDIC ATMOSPHERES EXCLUDED.

12. **Description of Equipment:**

Stationary Single Channel 4-20 mA or HART standalone Combustible Gas Detector. The AutoVu® AV10/CGS gas detector is suitable for installation in Class I, Division 1 and 2, Groups B, C, and D Hazardous (Classified) Locations. With a remote CGS sensor the AV10 display/control unit maintains Class II/III Division 1 and 2 Groups E, F, G and (Type 4X / IP66). The AV10/CGS gas detector monitors 0-100% LFL methane-in-air atmospheres and can be installed with an integral or remote sensor with a maximum distance from the controller to the sensor of 500 feet. The control unit communicates with the sensor via a proprietary signal. 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 -40°C to $+75^{\circ}\text{C}$ and operating voltage range for the entire system is 18-30 VDC, 11 watts maximum. In addition, the apparatus complies with FM 6320:2014 Approval Standard for Combustible Gas Detectors and ANSI/ISA-60079-29-1 (12.13.01):2013, Explosive Atmospheres – Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases.

AV10abc25d2C, AutoVu® Universal Display Unit with CGS

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)

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Specifications - The manufacturer's specifications are as follows:

Operating Temperature: -40°C to +75°C
 Storage Temperature: -55°C to +75°C
 Relative Humidity: 5 to 95% RH
 Supply Parameters: 18-30 VDC, 11 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 th January 2014	Original Issue.
15 th January 2017	<u>Supplement 1:</u> Report Reference: – 3057413 dated 15 th 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) Updated to the new certificate format.

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