Certificate of Compliance

Certificate: 2009485 **Master Contract:** 232422

Project: 70202669 **Date Issued:** 2019-03-22

Issued to: **Alicat Scientific Inc.**
7641 N. Business Park Dr.
Tucson, Arizona 85743
USA
Attention: David Lashbrook

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: Hossein Saleh
Hossein Saleh

PRODUCTS

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards

Ex ec IIC T4 Gc
Class 1, Zone 2 AEx ec IIC T4 Gc
Class I, Division 2, Group A, B, C and D, T4
Tamb. -40°C ≤ Ta ≤ +60°C

M, L, and P series instruments are mems pressure sensor based devices used in the measurement and control of flow and pressure of fluids. The devices utilize metal bodies to move the fluid and the electronics are housed in aluminum cases. Fluid connections are achieved either through common fitting types or via a manifold mounting method. The user interface involves either a display and/or analog and serial communications delivered over various connectors styles. The electrical rating is 24Vdc and 0.800A maximum. The Ex safety method is increased safety “ec” apparatus.

Conditions of Acceptability:

1. The equipment shall be powered by a CSA certified, UL listed Class II external power supply, suitable for the application.

2. The equipment shall be installed in an additional enclosure that is considered to be not accessible in normal operation without the use of a tool and providing a degree of protection of not less than IP54 according to CSA/UL 60079-0 and CSA/UL 60079-7. The installer shall ensure that the maximum ambient temperature of the equipment when installed is not exceeded.
3. The equipment shall be used in area of not more than pollution degree 2 as defined in IEC 60664-1.
4. Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply connector to the equipment.
5. Depending on the equipment model, the pluggable locking six pin industrial connector (IC), or locking D-sub 15 pin connector (DB15), or locking D-sub 9 pin connector (DB9) shall not be connected or disconnected in hazardous locations.
6. For equipment models with optional display, the keypad push buttons shall not be used when an explosive atmosphere is present.
7. The end user shall ensure the equipment is appropriately earthed upon installation.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 142-M1987	-	Process Control Equipment.
CSA Standard C22.2 No. 213-17	-	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.
CSA C22.2 No. 60079-0:15, 3rd Ed.	-	Electrical apparatus for explosive gas atmospheres - Part 0, General requirements
CSA C22.2 No. 60079-7:16 , 2nd Ed.	-	Equipment protection by increased safety “e”
ANSI/UL Standard 508, 17th Ed.	-	Industrial Control Equipment.
UL 60079-0, 6th Ed.	-	Electrical apparatus for explosive gas atmospheres - Part 0, General requirements
UL 60079-7, 5th Ed.	-	Equipment protection by increased safety “e”
ANSI/UL 121201 9th Ed.	-	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

Supplement to Certificate of Compliance

Certificate: 2009485 **Master Contract:** 232422

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
70202669	2019-03-22	An update to CSA Report and Certificate 2009485 to include the following modifications: An increase of the maximum ambient temperature from +50°C to +60°C as per new ATEX certification of the product; Assessment and update of method of protection for Zone 2 from " Ex nA" to "Ec ec"; Minor update of product nomenclature; Update of several descriptive documents; and an update of applicable standards.
70158256	2018-03-20	Update to report 2009485 to include the addition of M12 Industrial locking connector and NPT pass-through pigtail connector options, addition of new valve variant (alternative manufacturer), addition of new label variant for customer branded product, remove outdated standard UL 1604 and general revision updates for manufacturing files.
70026982	2015-05-19	Update to Report 2009485 to include alternate construction and document revisions, addition of L Series Mass Flow Instruments, updates to Model options.
2686509	2013-12-11	M&P Series Mass Flow and Pressure Instruments, update marking
2538193	2012-09-20	Update report 2009485 alternative microcontroller, no testing required; corrective action from inspection (ARZS40S)
2339487	2010-11-16	Update of Report 2009485 to include the addition of "S" variation to enable use with corrosive fluids and update of display board.
2009485	2008-11-21	Evaluation of MC Series Mass Flowmeters for use in Class I Division 2 and Zone 2