



1 **TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 19ATEX4045X** Issue: **1**

4 Equipment: **M, L Series Mass Flow Instruments; P Series Pressure Instruments**

5 Applicant: **Alicat Scientific Inc.**

6 Address: **7641 N. Business Park Dr  
Tucson  
Arizona 85743  
USA**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-7:2015

EN IEC 60079-0:2018

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This Type Examination Certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 3G

Ex ec IIC T4 Gc

-40°C ≤ Ta ≤ +60°C

Project Number 80066248

Signed: J A May

Title: Director of Operations

CSA Group Netherlands B.V.  
Utrechtseweg 310, Building B42,  
6812AR, Netherlands



## SCHEDULE

### TYPE EXAMINATION CERTIFICATE

Sira 19ATEX4045X  
Issue 1

#### 13 DESCRIPTION OF EQUIPMENT

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.

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	27 March 2019	R7020668A	The release of the prime certificate.
1	16 December 2020	R80066248A	Transfer of certificate Sira 19ATEX4045X from Sira Certification Service to CSA Group Netherlands B.V.

#### 15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 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 EN 60079-0 and EN 60079-7. The installer shall ensure that the maximum ambient temperature of the equipment when installed is not exceeded.
- 15.2 The equipment shall be used in area of not more than pollution degree 2 as defined in EN 60664-1.
- 15.3 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.
- 15.4 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.
- 15.5 For equipment models with optional display, the keypad push buttons shall not be used when an explosive atmosphere is present.
- 15.6 The end user shall ensure the equipment is appropriately earthed upon installation.

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

#### 17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.
- 17.2 Holders of Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

CSA Group Netherlands B.V.  
Utrechtseweg 310, Building B42,  
6812AR, Netherlands

Page 2 of 3



## SCHEDULE

### TYPE EXAMINATION CERTIFICATE

Sira 19ATEX4045X  
Issue 1

- 17.3 In accordance with EN 60079-7:2015 clause 6.1, each manufactured sample of the equipment shall be subjected to an electric strength test of 500Vrms for 60 seconds between all pins of the top case connector tied together and the sensor stainless steel adapter. Alternatively, a voltage of 20% higher than indicated above maybe applied for 100ms. There shall be no flashover or breakdown.

# Certificate Annexe



Certificate Number: Sira 19ATEX4045X  
Equipment: M, L Series Mass Flow Instruments; P Series Pressure Instruments  
Applicant: Alicat Scientific Inc.

---

## Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
610132	1 of 1	2	21 Mar 19	Marking Label
DOC-CSAINSTRUCTIONS	1 to 2	0	21 Mar 19	Safety Instruction for HAZLOC
DOC-10887INFO	1 to 26	22	21 Mar 19	Main Board Manufacturing Package
DOC-420022INFO	1 to 15	6	21 Mar 19	Display Board Manufacturing Package
DOC-320604INFO	1 to 20	4	21 Mar 19	Display Board Manufacturing Package
DOC-420008INFO	1 to 18	7	21 Mar 19	Valve Drive Board Manufacturing Package
DOC-420020INFO	1 to 19	2	21 Mar 19	RS485 Daughter Board Manufacturing Package
M-2SLPM-O-X_EXPLODED	1 of 1	0	21 Mar 19	Exploded view, of model M-2SLPM-O-X
MS-20SLPM-D-X_EXPLODED	1 of 1	0	21 Mar 19	Exploded view, of model MS-20SLPM-D-X
MW-2SLPM-O-X_EXPLODED	1 of 1	0	21 Mar 19	Exploded view, of model MW-2SLPM-O-X
PC-100PSIG-O-PCV03-DPORT-X_EXPLODED	1 of 1	0	21 Mar 19	Exploded view, of model PC-100PSIG-O-PCV03-DPORT-X
PC-100PSIG-O-PCV03-DPORT-DB15-X_EXPLODED	1 of 1	0	21 Mar 19	Exploded view, of model PC-100PSIG-O-PCV03-DPORT-DB15-X

Issue 1. No new drawings were introduced