



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 18ATEX2194X** Issue: **1**

4 Equipment: **Q-Flow 25**

5 Applicant: **Detectronic Ltd**

6 Address: Regent St
Whitewalls Ind. Est
Colne BB8 8LJ
Lancashire
UK

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., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of 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 IEC 60079-0:2018 EN 60079-11:2012

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 EU-Type Examination Certificate relates only to the design and construction of the specified equipment. 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 1G
Ex ia IIB T4 Ga
Ta = -40°C to +60°C

Project Number 0314

Signed:

Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



SCHEDULE

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Sira 18ATEX2194X
Issue 1

13 DESCRIPTION OF EQUIPMENT

The Q-Flow 25 is an ATEX certified intelligent area x velocity flowmeter for use in flow monitoring applications (e.g. dirty water, sewage, etc.). It's designed and certified for installation and use within hazardous areas. The unit provides connections to suitably-approved intrinsically safe sensors and interfaces.

The equipment comprises of a certified DI-2.5 board housed in an ABS enclosure. All external connections are made using military style, locking, non-interchangeable connectors. The entity parameters are as follows:

Q-Flow 25	Ui (V)	Ii (A)	Pi (W)	Ci (μ F)	Li (mH)	Uo (V)	Io (mA)	Po (mW)	Co (μ F)	Lo (mH)
Port 2 (supply) When Port 6 (A & B) not used	12.6	2.708	6.142	0	0.019	0				
Port 2 (supply) When Port 6 (A & B) used	12.6	2.708	6.142	0	0.019mH + total Li of external modules including cables connected to port 6 (pins A & B)	0				
Port 4 (Velocity, Tx & Rx)	0					8.61	270	799	50	1.0
Port 5 (depth/pressure)	0					8.61	270	799	50	0.9
Port 1 (output)	5.88	-	-	0	0	4.16	17	18	54	492
Port 3 (PC Port) (Pins D & F)	0	-	-	0	0.9	8.61	36	76	50	108
Port 3 (Volt Free Port)(Pin A)	5.5					8.61	1	2	50	1422 21
Port 6 (SDI-12) (Pins D & F)	5.5	-	-	0	0	6.93	15	26	54	632
Port 6 (power) (Pins A & B)	0					12.6	93.3	294	7.4	16.31
Port 7 (RS485)	4.2	-	-	0	0	6.93	30	52	54	158



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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	11 October 2018	R70184946A	The release of the prime certificate.
1	15 October 2019	0314	Transfer of certificate Sira 18ATEX2194X 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 exposed metal parts are not earthed and have a capacitance of up to 8pF with respect to an earthed conductor. Under certain extreme circumstances, exposed plastic and unearthed metal parts of the enclosure may store an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. locate the equipment where a charge-generating mechanism (such as wind-blown dust) is unlikely to be present and clean with a damp cloth.
- 15.2 Port 2 of the equipment Q-Flow 25 shall be connected to a resistive supply with a source resistance of 4.431Ω minimum.
- 15.3 The circuit ground is deliberately connected to the connector shells of the Velocity port and Depth port, so the equipment does not meet the requirements of the 500V dielectric strength test in accordance with EN 60079-11. This shall be taken into consideration during 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.

Certificate Annexe



Certificate Number: Sira 18ATEX2194X

Equipment: Q-Flow 25

Applicant: Detectronic Ltd

Issue 0

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
C123-1-DRW001-4	1 of 1	4	18 Sep 18	General Assembly Drawing
C123-1-DRW002-3	1 of 1	3	18 Sep 18	IS Sector Diagram
C123-1-DRW003-4	1 of 1	4	20 Sep 18	Connections & Port Parameters
C123-1-DRW004	1 of 1	1	18 Sep 18	Q-Flow 25 Cased Assembly & Marking

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