1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 02ATEX2157** Issue: **8**

4 Equipment: **Universal Air Sampling Pumps**

5 Applicant: **SKC Limited**

6 Address: Unit 11
Sunrise Park
Higher Shaftesbury Road
Blandford Forum
Dorset DT11 8ST
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 50014:1997 plus amendments A1 and A2 EN 50020:1994

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:

Ex II 2G
EEx ia IIC T4

Project Number 80055750

Signed: J A May

Title: Director of Operations

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Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands

13 **DESCRIPTION OF EQUIPMENT**

The air sampling pump provides a mechanism by which an amount of pollutant can be determined for a given volume of air. The equipment comprises a battery-operated motor with pump and filter attachment, a detachable encapsulated NiCd battery pack (containing current-limiting components and a charging socket) and an encapsulated electronic circuit. The circuitry is mounted within a plastic enclosure. The equipment uses the pump to draw air through the filter mechanism, the pump rotation being calibrated to provide a controlled flow rate. The duration of the sample period is also monitored.

The charging socket is the only external connection, but charging is not permitted in the hazardous area.

Variation 1 - This variation introduced the following change:

i. The introduction of the 224-44TX Air Sampling Pump.

Description of 224-44TX Air Sampling Pump

The 224-44TX air sampling pump provides a mechanism by which an amount of pollutant can be determined for a given volume of air. The equipment comprises a battery-operated motor with pump and filter attachment, a detachable encapsulated NiCd battery pack (containing current-limiting components and a charging socket) and an encapsulated electronic circuit. The circuitry is mounted within a plastic enclosure. The equipment uses the pump to draw air through the filter mechanism, the pump rotation being calibrated to provide a controlled flow rate. Unlike the Universal Air Sampling Pump, the duration of the sample period cannot be monitored, as there is no LCD display.

The charging socket is the only external connection, but charging is not permitted in the hazardous area.

Variation 2 - This variation introduced the following changes:

i. The use of GP GP200SCK, 2.0 Ah nominal, nickel cadmium (NiCd) batteries was recognised as replacements for the original, Energiser Ultramas, 1.8 Ah nominal, NiCd cells, this is a retrospective modification and applies to all NiCd Battery Packs.
ii. For clarification, it was confirmed that the two, Universal Air Sampling Pumps detailed in the original schedule were the types 224-PCTX4 and 224-PCTX8.
iii. The introduction of new versions of the of the Universal 224-44TX, 224-PCTX4 and 224-PCTX8 Air Sampling Pumps, these are designated the Universal 224-44MTX, 224-PCMTX4 and 224-PCMTX8 respectively.
iv. The nickel cadmium (NiCd) batteries used in Battery Pack Part Number P22418TX may be replaced by nickel metal-hydride (NiMH) ones. The new battery packs are designated as either Part Number P22418MTX or Part Number P22419MTX. The P22418MTX Battery Pack can be used in all versions of the Universal 224-44TX, 224-PCTX4 and 224-PCTX8 Air Sampling Pumps and the P22419MTX Battery Pack can be used in all versions of the Universal 224-44MTX, 224-PCMTX4 and 224-PCMTX8 Air Sampling Pumps.
v. The introduction of Robnor Resin RX/HX700K in place of the original PX/HX700K.
vi. The pump assembly drawings were re-drawn.
vii. The label drawings were rationalised in line with the above changes.

Variation 3 - This variation introduced the following changes:

i. To permit the use of an alternative Main PCB Assembly on the Universal Pump, Universal 224-PCTX4/8 and Universal 224-PCMTX4/8 Air Sampling Pumps.

Variation 4 - This variation introduced the following change:

i. The use of an alternative, plastic case material (Staroy NH-1000T) was recognised.

Variation 5 - This variation introduced the following change:

i. The use of of Robnor PX804C as an alternative encapsulation material was endorsed.

Variation 6 - This variation introduced the following change:

i. To introduce an alternative epoxy resin, Robnor Resins PX804C-1, for the encapsulation of the battery pack and PCB assemby.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	File/Report no.	Comment
0	14 August 2002	R52A7997A	The release of the prime certificate.
1	17 December 2003	R52V11062A	The introduction of Variation 1 that was re-issued 30 June 2004 to recognise the re-issue of the prime certificate and to amend the product description.
2	30 June 2004	52V12067	The prime certificate was re-issued to amend the product description.
3	8 January 2009	R52A16924C	This Issue covers the following changes: • All previously issued certification was rationalised into a single certificate, Issue 3, Issues 0 to 2 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. • The introduction of Variation 2.
4	7 April 2009	R52A19627A	The introduction of Variation 3.
5	18 August 2009	R52A19582A	The introduction of Variation 4.
6	24 February 2011	R22817A/00	The introduction of Variation 5.
7	15 October 2019	2626	This Issue covers the following changes: • Transfer of certificate Sira 02ATEX2157 from Sira Certification Service to CSA Group Netherlands B.V.. • EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. *(In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)*
8	11 November 2020	R80055750A	The introduction of Variation 6.

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

None

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.

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Certificate Annexe

Certificate Number: **Sira 02ATEX2157**

Equipment: **Universal Air Sampling Pump**

Applicant: **SKC Limited**

Issue 0

Drawing No.	Sheet	Rev.	Date	Description
0201C011	1 of 1	1	03 Jul 93	Universal Pump SKC 7953 Ver 3a Certification Drawing [schematic part 1]
0201C021	1 of 1	1	03 Jul 93	Universal Pump SKC 7953 Ver 3a Certification Drawing [schematic part 2]
0201P011	1 of 1	1	03 Jul 93	7953 pcb Layout
7953V3a	1 to 2	1	18 Sep 96	Certification Parts List
Sira 1	1 of 1	4	05 Mar 02	Rechargeable (Ex) Battery Pack Sub-Assembly
Sira 4	1 of 1	2	03 Jun 02	Wiring/Stack “224-PCTX4/8” Pump Controls
Sira 7	1 of 1	2	24 Jun 02	Labels for Universal Pump
Sira 13	1 of 1	2	03 Oct 01	Micro Motor for Airchek & Universal Pumps

Issue 1

Drawing No.	Sheet	Rev.	Date	Description
Sira-3	1 of 1	1	31 Jul 96	General assembly – 224-44TX
Sira-7	1 of 1	4	27 Nov 03	Labels
0203C011	1 of 1	1	04 Jul 93	Schematic – 224-44TX
7954V3a	1 of 1	2	18 Sep 96	Parts list – 224-44TX

Issue 2 (The re-issue of the prime certificate did not involve any drawing amendments therefore all previous drawings are unchanged)

Issue 3

Drawing No.	Sheet	Rev.	Date (Sira stamp)	Description
Sira-1	1 of 1	5	24 Nov 08	NiCd Battery Pack Assembly – Universal series pumps
Sira 3	1 of 1	2	24 Nov 08	Pump Assembly Universal (Basic) 224-44EX/TX/MTX
Sira 4	1 of 1	3	24 Nov 08	Pump Assembly Universal 224-PCEX4/8, PCTX4/8 and PCMTX4/8
Sira 7	1 of 2	5	24 Nov 08	Labels for Universal Approved Pumps
Sira 7	2 of 2	5	24 Nov 08	Labels for Universal Approved Pumps
SKC-IS-0002	1 of 1	1	24 Nov 08	NiMH Battery Pack Assembly – Universal series pumps
SKC-IS-0006	1 of 1	1	24 Nov 08	Main PCB Assembly Universal (Basic)224-44EX/TX/MTX Pumps
SKC-IS-0007	1 of 1	1	24 Nov 08	Main PCB Assembly Universal 224-PCEX4/8 PCTX4/8 PCMTX4/8 Pumps

Issue 4

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
SKC-IS-0012	1 of 1	1	17 Mar 09	Circuit Schematic – Main PCB Assembly Universal Pumps.
SKC-IS-0013	1 of 1	1	17 Mar 09	PCB Layout - Main PCB Assembly Universal Pumps.
SKC-IS-0014	1 & 2	1	17 Mar 09	Parts List - Main PCB Assembly Universal Pumps.
SKC-IS-0015	1 of 1	1	17 Mar 09	Main PCB Assembly Universal Pumps.

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Certificate Annexe

Certificate Number: **Sira 02ATEX2157**

Equipment: **Universal Air Sampling Pump**

Applicant: **SKC Limited**

Issue 5

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
SKC-IS-0002	1 of 1	2	10 Aug 09	NiMH Bat Pack Assy – Universal Series Pumps
Sira-1	1 of 1	6	10 Aug 09	NiCd Bat Pack Assy – Universal Series Pumps
Sira-3	1 of 1	3	10 Aug 09	Pump Assy – Universal (Basic) 224-44EX/TX/MTX
Sira-4	1 of 1	4	10 Aug 09	Pump Assy – Universal 224-PCEX4/8, PCTX4/8 & PCMTX 4/8

Issue 6

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
SKC-IS-0002	1 of 1	4	17 Jan 11	Universal Series Pumps
SKC-IS-0006①	1 of 1	3	17 Jan 11	Main PCB Assembly Universal 44EX-TX-MTX Pumps
SKC-IS-0015	1 of 1	3	17 Jan 11	Main PCB Assembly Universal PCEX-TX-MTX Pumps – 7953 Iss 7

Note ① – drawing number SKC-IS-0006 Rev 3 (Date Sira stamp 17 Jan 11) was omitted in error at Issue 6. This drawing is retrospectively introduced to the equipment drawing schedule under report (R80055750A) at Issue 8.

Issue 7 – No new drawings were introduced.

Issue 8

Drawing	Sheets	Rev	Date (stamp)	Title
SKC-IS-0002	1 of 1	5	23 Oct 20	Universal Series Pumps - Battery Pack
SKC-IS-0006	1 of 1	4	23 Oct 20	Main PCB Assembly Universal 44EX-TX-MTX Pumps
SKC-IS-0015	1 of 1	4	23 Oct 20	Main PCB Assembly Universal PCEX-TX-MTX Pumps – 7953 Iss 7

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