



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 08ATEX5106X** Issue: **0**

4 Equipment: **SX024DC, SX110AC, SX230AC Solenoid Coils**

5 Applicant: **Stolway Holdings Pty Ltd/RE Environmental/Refrigeration Engineering Pty Ltd**

6 Address: 9 Charcoal Close  
Unanderra  
NSW 2526  
Australia

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 60079-0:2006

EN 60079-18:2004

EN 60079-26:2007

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC 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:

**Type SX024DC**



II 1 G  
Ex ma IIC T4 IP66  
(Ta = -40°C to +60°C)

**Types SX110AC and SX230A**



II 2 G  
Ex mb IIC T4 IP66  
(Ta = -40°C to +60°C)

Project Number 51L17197A  
C. Index 24

C Ellaby  
Certification Officer

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**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

**Sira 08ATEX5106X  
Issue 0**

**13 DESCRIPTION OF EQUIPMENT**

The SX024DC, SX110AC, SX230AC Solenoid Coils have identical structure but different windings, in that the number of turns and wire diameter cater for maximum rated voltages of 24 VDC, 120 VAC 50/60 Hz and 240 VAC 50/60 Hz, as indicated by their part numbers. For each of the coils, its winding is completely enclosed with encapsulation within a metallic case. Connection to the coils is by an integral cable of double insulation. When energized, the coil actuates a plunger that operates a valve.

Each of the coils has been provided with two thermal fuses complying with IEC 60691, this permanently disconnects the power to the winding once the internal temperature within the compound exceeds a preset limit. The type SX024DC can be installed and operated in Zone 0 while the types SX110AC and SX230AC can be installed and operated in Zone 1 hazardous areas.

**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 February 2008	R51L17197A	The release of the prime certificate.

**15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)**

15.1 The following input parameters shall be taken into account during installation and use:

Type SX024DC	Type SX110AC	Type SX230AC
Ui = 26.4 V d.c.	Um = 132 V rms	Um = 250 V rms

15.2 The free end of the integral supply cable shall be suitably terminated.

15.3 The integral supply cable fitted to the Type SX024DC Solenoid Coil is not protected by intrinsic safety (EN 60079-11) and therefore, when used in a Zone 0 situation, the user/installer shall ensure that this cable is protected in a manner that is acceptable subject to approval at national level according to clause 9.2 of EN 60079-14:2003.

**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 CERTIFICATION**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 A routine dielectric strength test between the coil connections and the external metallic case shall be carried out at 1500 V r.m.s. for 60 s, as specified in Clause 8.2.4 of EN 60079-18:2004; there shall be no breakdown. Alternatively, the test voltages may be increased by 1.2 times and tested for 100 ms as stated in clause 9.2 of IEC 60079-18: 2004.

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**Sira Certification Service**

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# Certificate Annexe

**Certificate Number:** Sira 08ATEX5106X  
**Equipment:** SX024DC, SX110AC, SX230AC Solenoid Coils  
**Applicant:** Stolway/RE Environmental/Refrigeration Engineering Pty Ltd

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## Issue 0

Number	Sheet	Rev.	Date	Description
60102-1000	1 of 1	4	17 Jan 08	Ex mb Solenoid Coil – SX230AC General Arrangement
60102-1001	1 of 1	4	17 Jan 08	Ex ma Solenoid Coil – SX024DC General Arrangement
60102-1002	1 of 1	4	17 Jan 08	Ex mb Solenoid Coil – SX110AC General Arrangement
60102-5700	1 of 1	2	01 Feb 08	Label Details Ex mb Solenoid – SX230AC
60102-5701	1 of 1	2	01 Feb 08	Label Details Ex ma Solenoid – SX024DC
60102-5702	1 of 1	2	01 Feb 08	Label Details Ex mb Solenoid – SX110AC

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