1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 12ATEX1181X** Issue: **5**

4 Equipment: **SOLDO™ SW and SY Rotary Limit Switch Boxes**

5 Applicant: **Rotork Instruments Italy srl**

6 Address: Via Portico 17
24050
Orio al Serio (BG)
Italy

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 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 60079-0:2012/ A11:2013 EN 60079-1:2014 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

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 2GD
Ex db IIC T4/T5/T6
Ex tb IIIC T140°C/110°C/110°C/Db IP68
-60 ≤ Ta ≤ 60/80/105°C

Project Number 70117825

R A Craig
Certification Support Officer

Sira Certification Service
Unit 6 Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom
Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: ukinfo@csagroup.org
Web: www.csagroupuk.org

13 **DESCRIPTION OF EQUIPMENT**

The Rotary Limit Switch Box consists of a flameproof, stainless steel enclosure (type SW) or an aluminium enclosure (type SY) with operating rods passing through the enclosure walls for connection to valves and an optional external visual indicator. The enclosure has a cover and body that are secured by an M150 x 2 threaded joint. The function of these rotary limit switches is to provide visual and/or remote electrical indication of quarter turn valve/actuator positions. They can internally be provided with several switch options, a heating device or 4-20 mA transmitter/interfaces.

The relationship between the ambient temperature and the assigned temperature classes/surface temperatures for dust are as follows:

Tamb	Temperature class/Surface temperature for dust *	Configuration
-60°C to +105°C	T4/T140°C	6 Switches
-60°C to +80°C	T5/T110°C	6 Switches
-60°C to +60°C	T6/T110°C	4 switches and a 5W heater or 6 Switches

*Under a 50 mm dust layer which exceeds the requirements of the listed standards.

Rating

Max Voltage 250Vac 125 Vdc
Max Current: 10A
Maximum internal power dissipation: 10Watts (including heater, if applicable)

Variation 1 - This variation introduced the following change:

i. The introduction of the alternative material, sintered bronze, for the shaft bushing fitted in the cover and body.
ii. A new list of descriptive documents was introduced; these documents are essentially the same as that used for the IECEx certification associated these products and replace those identified in Issue 0, which are retained for reference.

Variation 2 - This variation introduced the following change:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the standards previously listed in section 9, EN 60079-0:2009, EN 60079-1:2007 and EN 60079-31:2009, were replaced by EN 60079-0:2012/A11:2013, EN 60079-1:2014 Ed. 7, and EN 60079-31:2014, the markings in section 12 were updated accordingly and the Special Condition for Safe Use were amended to recognise the new standard.

Variation 3 - This variation introduced the following change:

i. To permit a material change from stainless steel 316 to stainless steel 304 for the equipment nameplate. Ref drawing number SD0211024-02.
ii. Removal of the following previous scheduled certification name plate drawings that are no longer required to support production and are only retained for reference:

Drawing	Rev.	Title
SD0211023-00	00	Label SY IECEx ATEX
SD0211024-00	00	Label SW ATEX IECEx
SD0211024-01	01	Label SW ATEX IECEx SIRA

Sira Certification Service
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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 12ATEX1181X
Issue 5

Variation 4 - This variation introduced the following changes:

i. The Applicants name and address were changed as follows:

From:	To:
Soldo srl	Rotork Instruments Italy srl
Via Monte Baldo 60	Via Portico 17
25015	24050
Desenzano del Gards (BS)	Orio al Serio (BG)
Italy	Italy

ii. SOLDO™ was introduced to the front of the equipment name in Section 4.

iii. The introduction of an alternative manufacturing location at Fairchild Industrial Products Co., 3920 West Point Blvd., Winston-Salem, North Carolina 27103, USA was recognised,

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 **Associated Sira Reports and Certificate History**

Issue	Date	Report no.	Comment
0	02 July 2012	R27915A/00	The release of the prime certificate.
1	10 April 2014	R31186A/00	The introduction of Variation 1.
2	13 May 2014	R31186A/01	Report R31186A/00was replaced by R31186A/01.
3	13 May 2015	R70025632B	The introduction of Variation 2.
4	29 June 2016	R70072567A	This Issue covers the following changes: • 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.)* • The introduction of Variation 3.
5	24 March 2017	R70117825A R70126567A	The introduction of Variation 4.

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

15.1 The equipment is fitted with a non-conducting position indicator which could potentially generate an ignition-capable level of electrostatic charge under certain extreme conditions. Therefore, the equipment shall not be installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charge on the non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.

15.2 The maximum temperature at the cable entry points may exceed 70°C. The user shall refer to the manufacturer's instructions document for guidance in respect of the selection of suitable cabling for the equipment.

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15.3 Dust layers in excess of 50 mm shall not be allowed to form on the equipment.

15.3 The following have a minimum flamepath width (L) and maximum gap (i) other than that detailed in Table 2 of EN 60079-1 and are detailed below:

Flamepath	Joint Width (L) [mm]/(Max Gap) (ic) [mm]
Cover shaft/cover	26/(0.097)
Body Shaft/body	26/(0.097)

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 Sira Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

17.3 The power dissipation inside the flameproof enclosure must not exceed 10 W.

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Certificate Annexe

Certificate Number: **Sira 12ATEX1181X**

Equipment: **SOLDO™ SW and SY Rotary Limit Switch Boxes**

Applicant: **Rotork Instruments Italy srl**

Issue 0

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
SL-0202052-03	1 of 1	3	08 Jun 2012	Cover SW
SL-0201055-09	1 of 1	9	08 Jun 2012	Body SY
SL-0201053-05	1 of 1	5	08 Jun 2012	Body SW
SL-0202054-07	1 of 1	7	08 Jun 2012	Cover SY
SL-0204066-01	1 of 1	1	08 Jun 2012	Body Shaft SW-SY
SL-0204067-01	1 of 1	1	08 Jun 2012	Cover Shaft SW-SY
SL0225142-04	1 of 1	4	11 Jun 2012	Assembly switch box SY
SL0225141-03	1 of 1	3	11 Jun 2012	Assembly switch box SW
SL-0211023-05	1 of 1	5	08 Jun 2012	Label SY
SL-0211024-03	1 of 1	3	08 Jun 2012	Label SW

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
SD-0204183-00	1 of 1	0	11 Feb 14	Cover shaft –SY
SD-0204182-00	1 of 1	0	11 Feb 14	Body shaft -SY
SD-0202090-00	1 of 1	0	11 Feb 14	Cover SY
SD-0202089-00	1 of 1	0	11 Feb 14	Cover SW
SD-0201128-00	1 of 1	0	11 Feb 14	Body SW
SD-0225291-00	1 of 1	0	11 Feb 14	Assembly switch box SY
SD-0225290-00	1 of 1	0	11 Feb 14	Assembly switch box SW
SD-0201129-00	1 of 1	0	11 Feb 14	Body SY
SD0211023-00*	1 of 1	00	09 Apr 14	Label SY IECEx ATEX
SD0211024-00*	1 of 1	00	09 Apr 14	Label SW ATEX IECEx

*Drawing no longer required, refer to Variation 3.

Issue 2 - (No new drawings were introduced.)

Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
SD0211023-01	1 of 1	01	05/05/2015	Label SY ATEX IECEx SIRA
SD0211024-01*	1 of 1	01	05/05/2015	Label SW ATEX IECEx SIRA

*Drawing no longer required, refer to Variation 3.

Issue 4

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
SD0211024-02	1 of 1	02	10 Jun 16	Label SW ATEX IECEx SIRA

Issue 5

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
SD-0211023-02	1 of 1	02	08 Feb 17	Label SY ATEX IECEx SIRA
SD-0211024-03	1 of 1	03	08 Feb 17	Label SW ATEX IECEx SIRA

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