



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

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|---------------------|--|-------------|--------------------------------------|
| Certificate No.: | IECEX SIR 14.0038X | Page 1 of 4 | <u>Certificate history:</u> |
| Status: | Current | Issue No: 6 | Issue 5 (2021-09-16) |
| Date of Issue: | 2024-04-10 | | Issue 4 (2017-03-24) |
| Applicant: | Rotork Instruments Italy srl Via Portico 17 24050 Orio al Serio (BG) Italy | | Issue 3 (2016-06-29) |
| Equipment: | SOLDO™ Type SW and SY Rotary Limit Switch Boxes | | Issue 2 (2015-06-05) |
| Optional accessory: | | | Issue 1 (2014-05-13) |
| Type of Protection: | Flameproof and Dust Protection by Enclosure | | Issue 0 (2014-04-25) |
| Marking: | Ex db IIC T4/T5/T6 Ex tb IIIC T140°C/110°C/110°C/Db IP68 Ta = -60°C ≤ Ta ≤ 60°C/80°C/105°C | | |

Approved for issue on behalf of the IECEx
Certification Body:

Neil Jones

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





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Date of issue: 2024-04-10

Issue No: 6

Manufacturer: **Rotork Instruments Italy srl**
Via Portico 17
24050
Orio al Serio (BG)
Italy

Manufacturing locations: **Rotork Instruments Italy srl**
Via Portico 17
24050
Orio al Serio (BG)
Italy

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements
Edition:6.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/CSAE/ExTR21.0084/00](#)
[GB/SIR/ExTR15.0145/00](#)
[GB/SIR/ExTR17.0051/00](#)

[GB/SIR/ExTR14.0096/00](#)
[GB/SIR/ExTR16.0158/00](#)
[GB/SIR/ExTR24.0042/00](#)

[GB/SIR/ExTR14.0096/01](#)
[GB/SIR/ExTR17.0018/00](#)

Quality Assessment Report:

[GB/ITS/QAR09.0004/09](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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 incorporates a threaded cover having a M150 x 2 male thread forming a flame proof threaded joint with the threaded body. The function of these rotary limit switch boxes is to provide visual and/or remote electrical indication of quarter turn valve/actuator positions. The enclosure may be fitted with several switch options, a heating device or 4-20 mA transmitter/interfaces.

Refer to the Annexe for additional information.

Conditions of Manufacture

The Manufacturer shall comply with the following:

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

SPECIFIC CONDITIONS OF USE: YES as shown below:

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.
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.
3. Dust layer in excess of 50 mm shall not be allowed to form on the equipment.
4. The following have a minimum flamepath width (L) and maximum gap (i) other than that detailed in Table 2 of IEC 60079-1 and are detailed below:

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



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 6, recognises the following change; refer to the certificate annex to view a comprehensive history:

1. To allow the documentation associated with the certificate to reference the method used by the manufacturer to calculate the maximum power dissipated by internal components.

Annex:

[IECEX SIR 14.0038X Issue 6 Annexe.pdf](#)

Annexe to: IECEx SIR 14.0038X Issue 6

Applicant: Rotork Instruments Italy srl

Apparatus: SOLDO™ Type SW and SY Rotary Limit Switch Boxes



EQUIPMENT (continued)

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

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

Full certificate change history

Issue 1 – this Issue introduced the following change:

1. ExTR number GB/SIR/ExTR14.00966/00 was replaced by GB/SIR/ExTR14.0096/01.

Issue 2 – this Issue introduced the following change:

1. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the standard previously listed, IEC 60079-1:2007-04 Ed.6, was replaced by IEC 60079-1:2014-06 Ed. 7, the markings were updated accordingly and the Conditions of Certification were amended to recognise the new standard.

Issue 3 – this Issue introduced the following changes:

1. To permit a material change from stainless steel 316 to stainless steel 304 for the equipment nameplate. Ref drawing number SD0211024-02.
2. 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 |

Issue 4 – this Issue introduced the following changes:

1. The Applicant and Manufacturers name and address were changed as follows:

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

2. SOLDO™ was introduced to the front of the equipment name on page 1.
3. The introduction of an alternative manufacturing location at Fairchild Industrial Products Co., 3920 West Point Blvd., Winston-Salem, North Carolina 27103, USA was recognised

Issue 5 – this Issue introduced the following change:

1. Removal of the alternative manufacturing location, Fairchild Industrial Products Co., 3920 West Point Blvd., Winston-Salem, North Carolina 27103, United States of America and associated Quality Assessment Report GB/SIR/QAR09.0003/05.

Issue 6 – this Issue introduced the following change:

1. To allow the documentation associated with the certificate to reference the method used by the manufacturer to calculate the maximum power dissipated by internal components.