

# CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM16US0365X
3. **Equipment:** SI-2.1 Series Electro-Hydraulic Power Unit  
**(Type Reference and Name)**
4. **Name of Listing Company:** Rotork Fluid Systems (a Division of Rotork UK)
5. **Address of Listing Company:** 9 Brown Lane West  
Holbeck, Leeds LS12 6BH  
United Kingdom
6. The examination and test results are recorded in confidential report number:  
  
3044819 dated 28<sup>th</sup> March 2012
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:  
  
FM Class 3600:2011, FM Class 3810:2005, ANSI/ISA 60079-0:2009, ANSI/ISA 60079-1:2009,  
ANSI/ISA 60079-7:2008, ANSI/NEMA 250:1991
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. **Equipment Ratings:**  
  
Flameproof and Increased Safety for Class I, Zone 1, AEx d e IIB T4 Ta = -40°C to +65°C and Class I, Zone 1, AEx d e IIC T4 Ta = -20°C to +65°C hazardous (classified) locations, indoors and outdoors (Type 4 or 6). The Increased Safety rating applies when the increased safety terminal facility is specified on the single phase and DC versions only.

**Certificate issued by:**

J. E. Marquedant  
Manager, Electrical Systems

22 October 2016

Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA  
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# SCHEDULE



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11. The marking of the equipment shall include:

Class I, Zone 1, AEx d e IIB T4 Ta = -40°C to +65°C, Type 4 or 6

Class I, Zone 1, AEx d e IIC T4 Ta = -20°C to +65°C, Type 4 or 6

12. **Description of Equipment:**

The SI 2.1 Electro - Hydraulic Power Unit, is a self-contained electrically operated source of hydraulic power, which can be instantaneously switched to increase or decrease the pressure to a suitable spring return/ double acting, linear or quarter-turn actuator.

The Skilmatic range of SI Pro valve actuators is made up of three distinct models:

**Single Phase Unit:**

Consisting of a Main Board (50825), AC Power Board (46938) and transformer (HPU-758).

**3 Phase Unit:**

Consisting of a Main Board (50825), DC Power Board (47266) and Switch Mode Power Supply (Puls QT20.241)

**24 VDC Unit:**

Consisting of a Main Board (50825), DC Power Board (47266).

Each unit controls the position of a valve by controlling a motor driven pump and up to three solenoid valves. For single phase units, these devices are operated at the Mains voltage using solid state relays to provide isolation. For 24VDC and 3-Phase units, the motor and solenoids are 24VDC devices operated by transistor based drivers. In these cases, no isolation is required

The power unit consists of four distinct enclosures, which are separated by the centre housing casting, an electrical enclosure, a terminal enclosure, a motor enclosure and an oil reservoir.

**SI-2.1-abc-de. Electro-Hydraulic Power Unit.**

a = Failure Mode 0, 1, 2, 3, 4 or 5.

b = Spring Return Speed 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9.

c = Supply Voltage 0, 1, 2 or 3.

d = Control 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9.

e = Certification 3 or 3C.

13. **Specific Conditions of Use:**

Increased Safety rating applies when the increased safety terminal facility is specified on the single phase and DC version (Supply Voltage Option 0, 1, 2) only.

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. **Schedule Drawings**

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A copy of the technical documentation has been kept by FM Approvals.

## 16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
28 <sup>th</sup> March 2012	Original Issue.
22 <sup>nd</sup> October 2016	<u>Supplement 1:</u> Report Reference: 3060231 dated 22 <sup>nd</sup> October 2016 Description of the Change: Maximum ambient temperature changed from +60°C to +65°C and alternate motors introduced. Changed to new certificate format.

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