1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 05ATEX1134X** Issue: **12**

4 Equipment: **SI-1 and SB-1 Electro- Hydraulic Power Unit**

5 Applicant: **Rotork Fluid Systems (A Division of Rotork UK Ltd.)**

6 Address: 9 Brown Lane West
Holbeck
Leeds LS12 6BH
England

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 IEC 60079-0:2018	EN 60079-1:2014 +AC:2018	EN 60079-7:2015 +A1:2018
EN 60079-18:2015 +AC:2018	EN 13463-1:2009	

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:

SI-1 Electro- Hydraulic Power Unit

II 2 G
Ex db mb eb[1] IIB T4 Gb Ta -35°C to +65°C
Ex db mb eb[1] IIC T4 Gb Ta -20°C to +65°C

SB-1 Electro- Hydraulic Power Unit

II 2 G
Ex db mb eb[1] IIB T4 Gb Ta -35°C to +60°C

([1] "eb" added on versions with increased safety terminal enclosure option, for single Ø and DC versions only)

Project Number 80029224

Signed: J A May

Title: Director of Operations

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13 **DESCRIPTION OF EQUIPMENT**

The 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 power unit consists of three distinct enclosures, which are separated by the centre housing casting.

The electrical enclosure, which has been designed to meet the requirements of 'Ex d' type of protection, can contain the following equipment:

SI-1 - a display window, control PCB, power PCB, transformer and pressure transducer.
SB-1 - a control PCB with transformer and a pressure switch.

The terminal enclosure contains the electrical connections for external use. The power supply for 3 phase units is housed in an extended version of the terminal cover. The enclosure, when fitted with the short terminal cover, has been designed to meet the requirements of 'Ex d' type of protection. The electrical connections have been designed to meet the requirements of 'Ex e' type of protection.

The oil reservoir contains two oscillating pumps and either one or two solenoid valves.

The pump coils are designed to meet the requirements of 'Ex m' type of protection. They are protected by a thermal fuse, which is manufactured to permanently rupture at 136°C (110/230 Vac) and 133°C (24 Vac).

The solenoid valve coils are designed to meet the requirements of 'Ex m' type of protection. They are protected by a thermal fuse, which is manufactured to permanently rupture at 136°C (110/230 Vac) and 136°C (24 Vdc).

Connection between the electrical enclosure and the oil reservoir is made with threaded bushings, which are designed to meet the requirements of 'Ex d' type of protection.

The power supply of the unit can either be:

SI-1 Electro-Hydraulic Power Unit	**SB-1 Electro-Hydraulic Power Unit**
24 Vdc (±10%) 115 / 230 Vac, 50 / 60Hz single-phase (±10%) 380-480 Vac, 50 / 60Hz 3-phase (±10%)	115 / 230 Vac, 50 / 60Hz single-phase (±10%)

The enclosure is made from cast aluminium alloy.

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Product Code Breakdown - SI-1-abcde

a	b	c	d	e
0 FAIL-SAFE	0 STANDARD INTERNAL S.V.	0 SINGLE-PHASE 110-120 Vac 50/60 Hz	0 DIGITAL CONTROL	0
1 FAIL IN POSITION	1 STANDARD DUAL INTERNAL S.V.	1 SINGLE-PHASE 230 Vac 50/60 Hz	1 ANALOGUE CONTROL	1 ATEX IIB 1C ATEX IIC
2 FAIL-SAFE W/O PRESSURE TRANSMITTER	2 STANDARD INTERNAL S.V. & EXTERNAL S.V.	2 24Vdc 2A 24Vdc Aux Supply – 24Vdc	2 PAKSCAN	2
3 FAIL IN POSITION W/O PRESSURE TRANSMITTER	3 SLOW ACTING INTERNAL S.V.	3 3-PHASE 380-480V 50/60Hz 3A 3-PHASE 380-480V 50/60HZ Aux Supply – 24Vdc	3 PAKSCAN ANALOGUE INPUTS	3
4 DOUBLE ACTING	4 Slow Acting Dual Internal S.V.	4	4 MODBUS SINGLE CHANNEL	4
5 DOUBLE ACTING W/O PRESSURE TRANSMITTER	5 STANDARD INTERNAL S.V. & DUAL EXTERNAL S.V.	5	5 MODBUS DUAL CHANNEL	5
6	6 STANDARD INTERNAL NC S.V. & HARDWIRED INTERNAL N/O S.V.	6	6 PROFIBUS DUAL CHANNEL	6
7	7 STANDARD INTERNAL NC S.V. & HARDWIRED EXTERNAL N/O S.V.	7	7 DEVICENET	7
8	8 STANDARD DUAL HARDWIRED INTERNAL NO S.V.	8	8 FOUNDATION FIELDBUS	8
9	9 DOUBLE ACTING	9	9 PROFIBUS SINGLE CHANNEL	9

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EU-TYPE EXAMINATION CERTIFICATE

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Issue 12

Product Code Breakdown - SB-1-abcde

a	b	c	d	e
0 FAIL-SAFE	0 STANDARD INTERNAL S.V.	0 SINGLE-PHASE 110-120 Vac 50/60 Hz	0 TWO-WIRE CONTROL	0
1 FAIL IN POSITION	1 STANDARD DUAL INTERNAL S.V.	1 SINGLE-PHASE 230 Vac 50/60 Hz	1 THREE-WIRE CONTROL	1 ATEX IIB
2 FAIL-SAFE W/O PRESSURE SWITCH	2 STANDARD INTERNAL S.V. & EXTERNAL S.V.	2	2	2
3 FAIL IN POSITION W/O PRESSURE SWITCH	3 SLOW ACTING INTERNAL S.V.	3	3	3
4	4 SLOW ACTING DUAL INTERNAL S.V.	4	4	4
5	5 STANDARD INTERNAL S.V. & DUAL EXTERNAL S.V.	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

Variation 1 - This variation introduced the following changes:

i. A choke was introduced into the terminal enclosure on the three Ø units and the removal of part numbers from the bill of materials was allowed.
ii. Fuses were included within the encapsulated solenoid and pump.
iii. The values stated in the field wiring temperature warning were changed.
iv. The certification label was modified.
v. Drawing modifications were recognised.

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Variation 2 - This variation introduced the following changes:

i. The recognition of a gas group IIC variant, ambient temperature range -20°C to +60°C.
ii. The introduction of the SB-1 variant, gas group IIB only with an ambient temperature range of -35°C to +60°C.
iii. The use of an alternative electrical enclosure window material was allowed.
iv. The use of an alternative thermal fuse type was allowed.
v. The introduction of exemption from some routine overpressure testing relating to the SI-1 Gas Group IIB.
vi. The modification of the Product Code Breakdown Table for the SI-1 Unit to recognise changes associated with this variation.

Variation 3 - This variation introduced the following changes:

i. The introduction of an alternative terminal cover, part no 48870.
ii. A clear film, SLX polycarbonate over-mould, was added to the outer face of the Makrolon® 6717 window.
iii. The use of an alternative terminal bung material, CRASTIN ® ST830FRUV, was recognised.

Variation 4 - This variation introduced the following changes:

i. The recognition of an alternative control board (SMP-00-50825) on the S1-1(IIB & IIC).
ii. The introduction of a higher upper ambient temperature on the SI-1 (IIB only), changing from +60°C to +65°C, the marking code was amended accordingly.
iii. Corrections to the certification marking.
iv. The Applicant's name was changed from Rotork Skilmatic (A Division of Exeeco Ltd) to that shown on page 1.
v. Following appropriate re-assessment to demonstrate compliance with the requirements of the latest version of the EN 60079 series of standards, the documents originally listed in section 9, EN 60079-0:2004, EN 60079-1:2004, EN 60079-7:2003, EN 60079-18:2004 and EN 13463-1:2001, were replaced by those currently listed, the Markings in section 12, the Special Condition for Safe Use clause 15.1 and Conditions of Certification clauses 17.3 to 17.5 inclusive were updated accordingly.

Variation 5 - This variation introduced the following change:

i. The Applicant's name and address was changed from Rotork Fluid Systems (A Division of Exeeco Ltd), Regina House, Ring Road, Bramley, Leeds, LS13 4ET, UK, to that shown on page 1.

Variation 6 - This variation introduced the following changes:

i. The introduction of a long electrical cover and associated PCB.
ii. An increase in the terminal lid flamepath gap dimension from 0.15 mm to 0.2 mm.
iii. The Description, Special Conditions For Safe Use and Conditions of Certification were amended to reflect these changes.

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Variation 7 - This variation introduced the following changes:

i. SI-1- increase in the ambient temperature range from +60ºC to +65ºC for IIC Gas Groups.
ii. SI-1 – introduce an alternative terminal cover (long) manufactured in LM25-TF (heat treated)- BS 1490.
iii. SB-1 introduce an alternative electrical cover manufactured in LM25-TF (heat treated)- BS 1490.
iv. Drawing amendments to address the above modifications, and other minor modifications as detailed.
v. Modification to Certificate No SIRA 05ATEX1134X changes made to correct typographical errors; Certificate Annex, page 3 of 3, drawing table associated with Issue 6.
Change APU-A605 to HPU-A605
Remove HPU-A693. This drawing relates to IECEx and not ATEX
vi. Removal of Rotork Controls. as an alternative manufacturing facility.

Variation 8 - This variation introduced the following change:

i. Amendments to the certification code marking (as illustrated on the certificates) to align the style with that applied to other certificates held by the same manufacturer.

Variation 9 - This variation introduced the following change:

i. The introduction of an alternative material of manufacture for the main centre housing – Aluminium alloy –BS EN 1706 AC-42000-S-T6 (LM25TF Heat Treated).

Variation 10 - This variation introduced the following change:

i. Update approval standards to latest versions:
- EN 60079-0:2009 to EN IEC 60079-0:2018
- EN 60079-1:2007 to EN 60079-1:2014+AC:2018
- EN 60079-7:2007 to EN 60079-7:2015+A1:2018
- EN 60079-18:2009 to EN 60079-18:2015+AC:2018

ii. Introduction of an alternative Short Terminal Cover 46754 and 46754CH CASTING, TERMINAL COVER (Gravity Die Cast) Aluminium BS EN 1706-AC-42000-K-T6 (LM25TF) DC and single-phase versions.
iii. Introduction of an alternative Thermal Fuse – Type SF-129R-1, Schott Japan Corporation. HPU-800
iv. Drawing amendments to address changes covered by this variation along with minor editorial changes and corrections, e.g. correct supplier/manufacturer details, remove “SMP” from drawing references, update material references to a common format.
v. The description was amended to remove the specific metallic content of the aluminium alloy used to make the outer enclosure components.

Variation 11 - This variation introduced the following changes:

i. Addition of alternative encapsulated pump coils, types 2038486 & 2043322.
ii. Addition of alternative thermal fuse type 2045016 (Existing HPU-555).
iii. Addition of alternative solenoid valve coil assembly drawings 2045240 and 2045241 due to use of alternate thermal fuse 2045016.
iv. Modification to the label drawing Notified Body number reference.
v. The Conditions of Manufacture were updated to recognise the above changes.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

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14.2 **Associated Sira Reports and Certificate History**

Issue	Date	Report no.	Comment
0	17 June 2005	R51A12242A	The release of the prime certificate.
1	10 October 2005	R51A13718A	The introduction of Variation 1.
2	28 February 2008	R51A15500-001A	This Issue covers the following changes: • All previously issued certification was rationalised into a single certificate, Issue 2, Issues 0 and 1 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.
3	25 September 2009	R51A20885A	The introduction of Variation 3.
4	18 April 2011	R22749-002A	The introduction of Variation 4.
5	7 July 2014	R70007239A	The introduction of Variation 5.
6	25 September 2014	R70008045A	The introduction of Variation 6.
7	07 July 2016	R70063400A	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 7.
8	13 October 2016	R70097646A	The introduction of Variation 8.
9	20 September 2017	R70154976A	The introduction of Variation 9.
10	25 October 2018	R70193783A	The introduction of Variation 10.
11	15 October 2019	0762	Transfer of certificate Sira 05ATEX1134X from Sira Certification Service to CSA Group Netherlands B.V.
12	03 July 2020	R80029224A	The introduction of Variation 11.

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

15.1 The maximum constructional gap (l_c) is less than that required by Table 2 of EN 60079-1:2007 as detailed below:

SI-1 Electro- Hydraulic Power Unit Gas Group IIC

Flamepath	Maximum Gap (mm)	Minimum L (mm)
Electrical Enclosure / Electrical Cover	0.15	26.2
Terminal Enclosure/ Terminal Cover (Short)	0.15	26.7
Terminal Enclosure/ Terminal Cover (Long)	0.15	26.7
Main Body / Terminal Bung	0.115	25.95

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SI-1 Electro- Hydraulic Power Unit Gas Group IIB and SB-1 Electro- Hydraulic Power Unit

Flamepath	Maximum Gap (mm)	Minimum L (mm)
Electrical Enclosure / Electrical Cover	0.15	26.2
Terminal Enclosure/ Terminal Cover (Short)	0.15	26.7
Terminal Enclosure/ Terminal Cover (Long)	0.15	26.7
Flamepath	Maximum Gap (mm)	Minimum L (mm)
Terminal Enclosure/ Terminal Cover (Short) (SI-1 only)	0.2	26.7
Terminal Enclosure/ Terminal Cover (Long) (SI-1 only)	0.2	26.7
Main Body / Terminal Bung	0.115	25.95

15.2 All cover securing screws to be stainless steel (A4-80) to ISO 4762.

15.3 When fitted with a window manufactured in Makrolon® 6717 this equipment shall only be installed where the risk of impact upon the viewing window is low.

15.4 This equipment includes some external, non-metallic parts, including the outer protective coating. Cleaning must only be carried out with a damp cloth.

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 Each device shall be subjected to a routine overpressure test in accordance with the table below. In all cases the pressure shall be maintained for at least 10 s as required by clause 16 of EN 60079-1. There shall be no permanent deformation or damage to the enclosure.

SI-1 Electro- Hydraulic Power Unit Gas Group IIC

Equipment	Hydrostatic Overpressure Test Pressure	
	Bar	lbf/in²
Terminal Cover (Long) sand cast	10.17	147.47
Line Bushing 1Ø	15.21	220.55
Line Bushing DC (3Ø)	14.04	203.58
Pressure Transducer 1Ø	15.21	220.55
Pressure Transducer DC (3Ø)	14.04	203.58

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SI-1 Electro- Hydraulic Power Unit Gas Group IIB Short Cover

Equipment	Hydrostatic Overpressure Test Pressure	
	Bar	lbf/in²
Terminal Cover (Long) sand cast	14.22	206.19
Electrical Cover 1Ø (Makrolon ® Window)	15.70	227.66
Electrical Cover DC (3Ø) (Makrolon ® Window)	17.54	254.33
Terminal Bung	17.54	254.33
Line Bushing 1Ø	15.70	227.65
Line Bushing DC (3Ø)	17.54	254.33
Pressure Transducer 1Ø	15.70	227.65
Pressure Transducer DC (3Ø)	17.54	254.33

SI-1 Electro- Hydraulic Power Unit Gas Group IIB Long Cover

Equipment	Hydrostatic Overpressure Test Pressure	
	Bar	lbf/in²
Electrical Cover –Gravity Cast (Long Cover/Makrolon Window)	20.19	292.83
Centre Housing – Sand Cast (Electrical Enclosure)	20.19	292.83
Terminal bung	20.19	292.83
Line Bushing DC (3Ø)	20.19	292.83
Pressure Transducer DC (3Ø)	20.19	292.83

Long Cover version only approved for -20°C IIB DC & 3Ø

SB-1 Electro- Hydraulic Power Unit

Equipment	Hydrostatic Overpressure Test Pressure	
	Bar	lbf/in²
Electrical Cover	14.82	214.90
Pressure Switch	14.82	214.90
Line Bushing	14.82	214.90

17.4 Every encapsulated device shall be subject to the following routine test as part of the manufacturing process:

- Visual check according to clause 9.1 of EN 60079-18

17.5 The following encapsulated devices shall be subject to the following routine electric strength test according to clause 9.2 of EN 60079-18 as part of the manufacturing process:

a) **HPU-A428/2045240 and HPU-A431/2038486** - A test voltage of 1500 Vrms shall be applied between all circuits that are encapsulated and any external metal parts. The test voltage is to be applied for at least 1 second. There shall be no evidence of electrical breakdown or flashover. Alternatively, 1.2 x the test voltage may be applied for 100 ms

b) **HPU-A609/2043322 and HPU-A610/2045241** - A test voltage of 500 Vrms shall be applied between all circuits that are encapsulated and any external metal parts. The test voltage is to be applied for at least 1 second. There shall be no evidence of electrical breakdown or flashover. Alternatively, 1.2 x the test voltage may be applied for 100 ms

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c) **HPU-A669 and HPU-A670:**

- **24Vac/24Vdc -** A test voltage of 500 Vrms shall be applied between all circuits that are encapsulated and any external metal parts. The test voltage is to be applied for at least 1 second. There shall be no evidence of electrical breakdown or flashover. Alternatively, 1.2 x the test voltage may be applied for 100 ms
- **110/230 Vac** -A test voltage of 1500 Vrms shall be applied between all circuits that are encapsulated and any external metal parts. The test voltage is to be applied for at least 1 second. There shall be no evidence of electrical breakdown or flashover. Alternatively, 1.2 x the test voltage may be applied for 100 ms

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Certificate Annexe

Certificate Number: **Sira 05ATEX1134X**

Equipment: **SI-1 and SB-1 Electro- Hydraulic Power Unit**

Applicant: **Rotork Fluid Systems (A Division of Rotork UK Ltd.)**

Issue 0

Drawing	Sheet	Rev.	Date	Description
HPU/149	1 of 1	D	06 Jun 05	Terminal Earth
HPU/A427	1 of 1	H	16 Jun 05	Certification Drawing, ½ NPT-2 Core Line Bush
HPU/A428	1 of 1	F	16 Jun 05	Certification Drawing, 110/230Vac Solenoid Valve Coil Assembly
HPU/A431	1 of 1	E	16 Jun 05	Certification Drawing, 110/230 Vac Pump Coil Assembly
HPU/555	1 of 1	F	16 Jun 05	Thermal Fuse 136°C (2A) Rated
HPU/556	1 of 1	D	09 Jun 05	Resin, H3003 Epoxy
HPU/A605	1 of 4	C	16 Jun 05	Certification Drawing, SI-1 Power Unit (ATEX-IECEx)
HPU/A605	2 of 4	C	16 Jun 05	Certification Drawing, SI-1 Power Unit (ATEX-IECEx)
HPU/A605	3 of 4	C	16 Jun 05	Certification Drawing, SI-1 Power Unit (ATEX-IECEx)
HPU/A605	4 of 4	C	16 Jun 05	Certification Drawing, SI-1 Power Unit (ATEX-IECEx)
HPU/A607	1 of 1	0	07 Feb 05	Certification Drawing, Terminal Bung (ATEX – IECEx)
HPU/A609	1 of 1	B	16 Jun 05	Certification Drawing, 24 Vdc Pump Coil Assembly (SI-1)
HPU/A610	1of 1	B	16 Jun 05	Certification Drawing, 24 Vdc Solenoid Valve Coil Assembly (SI-1)
HPU/754	1 of 1	0	17 May 05	Transmitter 0-16 Bar Pressure (Gems Sensor)
HPU/764	1 of 1	B	13 Jun 05	Label, Ex d Terminal Cover (SI)
HPU/765	1 of 1	B	13 Jun 05	Label, Ex e Terminal Cover (SI)
HPU/767	1 of 1	C	16 Jun 05	Label, Data (ATEX) (SI-1)
HPU/782	1 of 1	0	17 May 05	Transmitter, 0-16 Bar Pressure (Variohm)
HPU/800	1 of 1	B	16 Jun 05	Thermal Fuse 133°C (10A) Rated
HPU/807	1 of 1	A	17 Jun 05	Certification Drawing SI-1 Fusing Of Encapsulated Pumps And Solenoid Valves

Issue 1

Drawing	Sheet	Rev.	Date (Sira stamp)	Description
HPU/A605	1 of 4	F	30 Sep 05	Certification Drawing, SI-1 Power Unit ATEX – IECEx – Ex dm(e) IIB T4 Approval
HPU/A605	2 of 4	F	30 Sep 05	Certification Drawing, SI-1 Power Unit ATEX – IECEx – Ex dm(e) IIB T4 Approval
HPU/A605	3 of 4	F	30 Sep 05	Certification Drawing, SI-1 Power Unit ATEX – IECEx – Ex dm(e) IIB T4 Approval
HPU/A605	4 of 4	F	30 Sep 05	Certification Drawing, SI-1 Power Unit ATEX – IECEx – Ex dm(e) IIB T4 Approval
HPU/A607	1 of 1	A	30 Sep 05	Certification Drawing, Terminal Bung
HPU/A608	1 of 1	0	30 Sep 05	Certification Drawing, ½ NPT - 10 A - 2 Core Line Bush
HPU/A669	1 of 1	A	30 Sep 05	Certification Drawing, Pump Coil Assembly (SI-1)
HPU/A670	1 of 1	A	30 Sep 05	Certification Drawing, Solenoid Valve Coil Assembly (SI-1)
HPU/764	1 of 1	C	30 Sep 05	Label, Ex d Terminal Cover (SI)
HPU/765	1 of 1	C	30 Sep 05	Label, Ex e Terminal Cover (SI)
HPU/767	1 of 1	D	30 Sep 05	Label, ATEX Data (SI-1)
HPU/814	1 of 1	0	30 Sep 05	Certification Drawing SI-1 Fusing Of Encapsulated Pumps and Solenoid Valves

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Certificate Annexe

Certificate Number: **Sira 05ATEX1134X**

Equipment: **SI-1 and SB-1 Electro- Hydraulic Power Unit**

Applicant: **Rotork Fluid Systems (A Division of Rotork UK Ltd.)**

Issue 2

Drawing	Sheet	Rev.	Date (Sira stamp)	Description
HPU/555	1 of 1	G	02 Nov 07	Thermal Fuse 136°C (3A) Rated
HPU/A605	1 of 4	H	28 Jan 08	Certification Drawing, SI-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIB Approval
HPU/A605	2 of 4	H	28 Jan 08	Certification Drawing, SI-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIB Approval
HPU/A605	3 of 4	H	28 Jan 08	Certification Drawing, SI-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIB Approval
HPU/A605	4 of 4	H	28 Jan 08	Certification Drawing, SI-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIB Approval
HPU/A731	1 of 4	A	28 Jan 08	Certification Drawing, SI-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIC Approval
HPU/A731	2 of 4	A	28 Jan 08	Certification Drawing, SI-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIC Approval
HPU/A731	3 of 4	A	28 Jan 08	Certification Drawing, SI-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIC Approval
HPU/A731	4 of 4	A	28 Jan 08	Certification Drawing, SI-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIC Approval
HPU/A742	1 of 1	A	28 Jan 08	Certification Drawing, SB-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIB Approval
HPU/A742	2 of 4	A	28 Jan 08	Certification Drawing, SB-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIB Approval
HPU/A742	3 of 4	A	28 Jan 08	Certification Drawing, SB-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIB Approval
HPU/A742	4 of 4	A	28 Jan 08	Certification Drawing, SB-1 Electro Hydraulic Power Unit ATEX Ex dm(e) IIB Approval
HPU/840	1 of 1	A	25 Mar 07	Switch, 0-16 Bar Pressure (Variohm)
HPU/853	1 of 1	0	12 Oct 07	Label, Ex d Terminal Cover (SI)
HPU/854	1 of 1	0	12 Oct 07	Label, Ex e Terminal Cover (SI)
HPU/855	1 of 1	A	28 Jan 08	Label, ATEX Data (SI-1)
HPU/861	1 of 1	0	06 Nov 07	Certification Drawing SB-1 Fusing Of Encapsulated Pumps and Solenoid Valves
HPU/862	1 of 1	A	28 Jan 08	Label, ATEX Data (SB-1)

Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
HPU/A605	1 of 5	J	02 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/A605	2 of 5	J	02 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/A605	3 of 5	J	02 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/A605	4 of 5	J	02 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/A605	5 of 5	J	02 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval

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Certificate Annexe

Certificate Number: **Sira 05ATEX1134X**

Equipment: **SI-1 and SB-1 Electro- Hydraulic Power Unit**

Applicant: **Rotork Fluid Systems (A Division of Rotork UK Ltd.)**

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
HPU/A731	1 of 5	B	03 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIC T4 Approval
HPU/A731	2 of 5	B	03 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIC T4 Approval
HPU/A731	3 of 5	B	03 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIC T4 Approval
HPU/A731	4 of 5	B	03 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIC T4 Approval
HPU/A731	5 of 5	B	03 Jul 09	Certification Drawing, SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIC T4 Approval
HPU/A742	1 of 5	B	03 Jul 09	Certification Drawing, SB-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/A742	2 of 5	B	03 Jul 09	Certification Drawing, SB-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/A742	3 of 5	B	03 Jul 09	Certification Drawing, SB-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/A742	4 of 5	B	03 Jul 09	Certification Drawing, SB-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/A742	5 of 5	B	03 Jul 09	Certification Drawing, SB-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Approval
HPU/885	1 of 1	0	26 Aug 09	Certification Drawing SLX Film Over-Mould Window

Issue 4

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
HPU/941	1 of 1	0	29/03/2011	Label, ATEX – Data (SI-1)
HPU/943	1 of 1	0	29/03/2011	Label, ATEX – Data (SB-1)
HPU/A605	1 to 5	K	29/03/2011	Certification Drawing, SI-1 Electro-Hydraulic Power Unit Ex dm(e) IIB T4 Gb Approval
HPU/A731	1 to 5	C	29/03/2011	Certification Drawing, SI-1 Electro-Hydraulic Power Unit Ex dm(e) IIC T4 Gb Approval
HPU/A742	1 to 5	C	29/03/2011	Certification Drawing, SB-1 Electro-Hydraulic Power Unit Ex dm(e) IIB T4 Gb Approval
HPU/949	1 of 1	0	29/03/2011	Label, Ex d Terminal Cover (SI & SB)

Issue 5

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
HPU-1420	1 of 1	01	05 Jun 14	Label, ATEX data (SI-1)
HPU-1430	1 of 1	01	05 Jun 14	Label, ATEX data (SB-1)

Issue 6

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
HPU-A605	1 to 5	L	05 Sep 14	SI-1 Electro-Hydraulic Power Unit
HPU-A1281	1 of 1	3	24 Sep 14	Certification Drawing, SI-1 Power Unit, Long Cover ATEX & IECEx Ex dm(e) IIB T4 Gb Approval

CSA Group Netherlands B.V.
Utrechtseweg 310,
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Netherlands

Certificate Annexe

Certificate Number: **Sira 05ATEX1134X**

Equipment: **SI-1 and SB-1 Electro- Hydraulic Power Unit**

Applicant: **Rotork Fluid Systems (A Division of Rotork UK Ltd.)**

Issue 7

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
HPU-A605	1 to 5	M	06 May 16	Certification Drawing SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Gb Approval
HPU-A731	1 to 5	D	06 May 16	Certification Drawing SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIC T4 Gb Approval
HPU-A742	1 to 5	D	06 May 16	Certification Drawing SB-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Gb Approval
HPU-1420	1 of 1	02	06 Jul 16	Label, ATEX Data (SI-1)
HPU-1430	1 of 1	02	06 Jul 16	Label, ATEX Data (SB-1)
HPU-949	1 of 1	A	06 May 16	Label, Ex d Terminal Cover (SI & SB)
HPU-950	1 of 1	A	06 May 16	Label, Ex e Terminal Cover (SI & SB)

Issue 8 No new drawings were introduced

Issue 9

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
HPU-A605	1 to 5	N	11 Sep 17	Certification Drawing SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Gb Approval
HPU-A731	1 to 5	E	11 Sep 17	Certification Drawing SI-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIC T4 Gb Approval
HPU-A742	1 to 5	E	11 Sep 17	Certification Drawing SB-1 Electro-Hydraulic Power Unit ATEX Ex dm(e) IIB T4 Gb Approval

Issue 10

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
HPU-149	1 of 1	1-0	26 Sep 18	Terminal Earth
HPU-555	1 of 1	1-0	26 Sep 18	Thermal Fuse 136°C (3A) Rated
HPU-556	1 of 1	1-0	26 Sep 18	Resin, H3003 Epoxy
HPU-754	1 of 1	1.0	26 Sep 18	Transmitter 0-16 Bar Pressure (Gems)
HPU-782	1 of 1	1-0	26 Sep 18	Transmitter, 0-16 Bar Pressure (Variohm)
HPU-800	1 of 1	1.0	26 Sep 18	Thermal Fuse 133°C (10A) Rated
HPU-807	1 of 1	2-0	11 Oct 18	SI-1, ATEX/IECEx/CSA/FM Pumps & Solenoid Fusing
HPU-814	1 of 1	2-0	11 Oct 18	SI-1, ATEX/IECEx/CSA/FM Pumps & Solenoid Encapsulated Fusing
HPU-840	1 of 1	1-0	26 Sep 18	Switch, 0-16 Bar Pressure (Variohm)
HPU-861	1 of 1	1-0	26 Sep 18	SB-1 Fusing of Pumps and Solenoids
HPU-885	1 of 1	1-0	26 Sep 18	SI-PRO, ATEX/IECEx/CSA Window SLX Film Over-mould
HPU-949	1 of 1	1-0	26 Sep 18	Label, SI-PRO Terminal Cover, Ex db
HPU-950	1 of 1	1-0	26 Sep 18	Label, SI-PRO terminal Cover, Ex db eb
HPU-1420	1 of 1	3-0	26 Sep 18	Label SI-1 Data ATEX db mb (eb)
HPU-1430	1 of 1	3-0	26 Sep 18	Label SB-1 Data ATEX db mb (eb)
HPU-A427	1 of 1	2-0	26 Sep 18	SI-1/SB-1ATEX/IECEx/CSA/FM, Line Bush, 2 Core ½" NPT
HPU-A428	1 of 1	2-0	26 Sep 18	SI-1/SB-1, ATEX/IECEx/CSA/FM, Solenoid Coil Assembly, 110/230 Vac
HPU-A431	1 of 1	2-0	26 Sep 18	SI-1/SB-1, ATEX/IECEx/CSA/FM, Pump Coil Assembly, 110/230 Vac

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Certificate Annexe

Certificate Number: **Sira 05ATEX1134X**

Equipment: **SI-1 and SB-1 Electro- Hydraulic Power Unit**

Applicant: **Rotork Fluid Systems (A Division of Rotork UK Ltd.)**

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
HPU-A605	1 to 5	1-0	26 Sep 18	SI-1 Power unit ATEX Ex dbmb(eb) IIB
HPU-A607	1 of 1	1-0	26 Sep 18	Ex – Terminal Bung
HPU-A608	1 of 1	2-0	26 Sep 18	SI-1/SB-1, ATEX/IECEx/CSA/FM, Line Bush, 2 Core ½" NPT, 10A
HPU-A609	1 of 1	2-0	26 Sep 18	SI-1/SB-1, ATEX/IECEx/CSA/FM, Pump Coil Assembly, 24 V ac
HPU-A610	1 of 1	2-0	26 Sep 18	SI-1/SB-1, ATEX/IECEx/CSA/FM, Solenoid Coil Assembly, 24 Vdc
HPU-A669	1 of 1	2-0	26 Sep 18	SI-1/SB-1, ATEX/IECEx/CSA/FM, Pump Coil Assy, Encapsulated Fuse
HPU-A670	1 of 1	2-0	26 Sep 18	SI-1/SB-1, ATEX/IECEx/CSA/FM, Solenoid Coil Assy, Encapsulated Fuse
HPU-A731	1 to 5	1-0	26 Sep 18	SI-1 Power Unit, ATEX Ex db mb (eb) IIC T4
HPU-A742	1 to 5	1-0	26 Sep 18	SB-1 Power Unit, IECEx Ex db mb (eb) IIB T4
HPU-A1281	1 of 1	4-0	26 Sep 18	SI-1 Power Unit, Long Cover
RS308	1 to 2	9	26 Sep 18	Potting Procedure for CENELEC and ATEX Term Block/MTR Looms/RHS Loom
RS448	1 to 2	1	26 Sep 18	Window Bonding Procedure

Issue 11. No new drawings were introduced.

Issue 12.

Drawing	Sheets	Rev.	Date (Stamp)	Title
2034913	1 of 1	2-0	16 Jun 20	Label, SI-1 Data, ATEX Ex dbmb (eb)
2038485	1 of 1	0-0	16 Jun 20	SI-1, Coil, Pump, Single Phase
2038486	1 of 1	0-0	16 Jun 20	SI-1/SB-1, ATEX/IECEx, Pump Coil Assembly, 110/230 Vac
2038511	1 to 2	0-0	16 Jun 20	Assembly, Pump Coil, Ex - Single Phase
2038559	1 of 1	1-0	16 Jun 20	SI-1, Pump & Solenoid Fusing
2038562	1 of 1	0-0	16 Jun 20	SB-1 Fusing of Pumps and Solenoids
2043322	1 of 1	0-0	16 Jun 20	SI-1/SB-1, Pump Coil Assembly, 24 Vac
2043361	1 to 2	0-0	16 Jun 20	Assembly, Pump Coil, Ex - 24Vac
2045016	1 of 1	0-0	16 Jun 20	Fuse, Thermal-135°C (3A) Rated
2045240	1 of 1	0-0	16 Jun 20	Solenoid new thermal fuse 110/230 Vac
2045241	1 of 1	0-0	16 Jun 20	Solenoid new thermal fuse 24 Vdc
HPU-A605	1 to 5	3-0	16 Jun 20	SI-1 Power Unit ATEX Ex dbmb (eb) IIB
HPU-A731	1 to 5	3-0	16 Jun 20	SI-1 Power Unit, ATEX Ex dbmb (eb) IIC T4
HPU-A742	1 to 5	3-0	16 Jun 20	SB-1 Power Unit, ATEX Ex dbmb (eb) IIB T4 GB

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