



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 15ATEX1292X** Issue: **0**

4 Equipment: **RT-30Ex Transmitter
HUB-41Ex Adaptor**

5 Applicant: **AW-Lake Company**

6 Address: **8809 Industrial Dr.
Franksville
Wisconsin 53126
USA**

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 60079-0:2012

EN 60079-1:2007

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 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:



II 2 G

Ex d IIB+H₂ T5 Gb

Ta = -40°C to +60°C

Project Number 70018715

A C Smith
Certification Manager

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Sira Certification Service

Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

**Sira 15ATEX1292X
Issue 0**

13 DESCRIPTION OF EQUIPMENT

RT-30Ex transmitter

The RT-30Ex is a meter-mounted digital flow monitor housed in a single access enclosure (Ex d connecting head) or dual access enclosure (Ex d 'Universal instrument housing'). A large LCD graphic display provides easy to read indication of flow rate. The enclosure contains 2 printed wiring boards – A display board and a terminal connection board with processor and I/O board. These are interconnected by a ribbon cable.

The Hub Adapter (swivel union assembly) comprises of 4 pieces: the swivel union top, bottom, collar and a sliding probe tube. The Hub Adapter houses the Hall Pickup assembly (wired probe tube pictured below) which is connected to the process pipe per control drawing RT30990 via 3/8"-18 NPT Male threads. The swivel union top connects to the RT-30Ex Transmitter or HUB-41Ex adaptor Flameproof Ex d enclosure via 1/2"-14 NPT Male threads. The top and bottom parts are held together by the swivel collar via a 1 3/8"-18 UNEF 2A/2B threaded union.

HUB-41Ex adaptor description

When an Ex d connecting head is assembled to the "swivel union assembly" instead of an Ex d enclosure, the unit becomes a HUB-41Ex Adapter found between a remotely mounted RT-30Ex transmitter and the process pipe. The Ex d connecting head for the HUB-41Ex is identified as model XD-AD by Limatherm (IEEx FTZ 14.0003U).

Control drawing RT30990 details several meter body connection options between the equipment and the meter body in the final installation. This control drawing addresses the minimum partition wall thickness, meter body connecting threads and alternative welding found under pressure. Two Styles of sensor ports are identified in the control drawing each rated for a Maximum Process Pressures within the meter body.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	24 September 2015	R70018715A	The release of the prime certificate.

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

15.1 The meter body temperatures must not exceed 85°C for temperature class T5 for explosive gas atmospheres.

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.

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SCHEDULE

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Sira 15ATEX1292X
Issue 0

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 The equipment incorporates previously Ex d certified enclosures, as shown in the table below. It is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with this device, and the manufacturer shall inform CSA Sira of any modifications of the device that may impinge upon the explosion safety design of the product.

Part number	Description	Certificate Number
XD-ID100win	"Universal instrument housing" two compartment aluminium enclosure with interconnecting port, one window cover and one blank cover	IECEX FTZ 10.0019U
XD-ID100		
XD-100H		
XD-ID100Hwin		
XD-I	"Universal instrument housing" aluminium enclosure with single internal compartment, one window cover and one blank cover	IECEX FTZ 12.0017U
XD-Iwin		
XD-IH		
XD-IHwin		
XD-ILwin		
XD-AD	"Connecting head" aluminium enclosure with one blank cover	IECEX FTZ 14.0003U

- 17.4 Each manufactured meter body, identified in control drawing RT30990 (Rev F approved 14 July 2015), must withstand a pressure test of 1.5 times the maximum working pressure.
- 17.5 The meter body must have the sensor port manufactured according to Control Drawing RT30990 Revision level F, including construction material as noted on the drawing. The end user must be supplied with this control drawing RT30990 for proper installation of the sensor.

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Certificate Annexe



Certificate Number: Sira 15ATEX1292X
Equipment: RT-30Ex Transmitter
HUB-41Ex Adaptor
Applicant: AW-Lake Company

Issue 0

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
RT-30EX-D01 WHUB41	1 to 2	A	14 July 15	Dual access housing
RT-30 Ex w_Hub41	1 of 1	A	14 July 15	Single access housing
HUBX501	1 to 2	-	14 July 15	HUB-41Ex w/ junction and terminal b.
HUB-30 Ex	1 of 1	B	14 July 15	HUB Sensor assembly
SWVL740	1 of 1	C	14 July 15	HUB-41EX Swivel union bottom leg
SWVL741	1 of 1	C	14 July 15	HUB-41EX Swivel union top leg
SWVL742	1 of 1	C	14 July 15	HUB-41EX Swivel union collar
RT30990	1 of 1	F	14 July 15	Ex Sensor Hole definition
RT-30Ex IO	1 of 1	B	14 July 15	RT-30Ex Hook-up Board
AR88000	1 of 1	C	14 July 15	Main Board top layout
AR88001	1 of 1	B	14 July 15	Hook-up board top layer
RT-30Ex	1 to 4	C	14 July 15	Electrical Schematic
TAG RT-30EX-3	1 to 2	A	15 Sep 15	RT-30 Ex Rating plate Label drawing
TAG-EX002	1 of 2	A	15 Sep 15	HUB-41Ex rating plate

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