



1 **TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 10ATEX4059X** Issue: **3**

4 Equipment: **Model W40190 Flow Computer (FB107)**

5 Applicant: **Bristol, . Fromex S. A. de C. V.**
dba Remote Automation Solutions A Division of Emerson Process Management

6 Address: 1100 Buckingham St. Aveinida Industrias No 6025
Watertown Zd 88275 Nueva Laredo
Connecticut 06795 Tamaulipas
USA Mexico

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. certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 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 60079-15:2010

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 Type Examination Certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured. 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 3G
Ex nA IIC T4 Gc
-40°C ≤ Tamb ≤ +75°C

Project Number 1675

Signed: 

Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
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SCHEDULE

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Sira 10ATEX4059X
Issue 3

13 DESCRIPTION OF EQUIPMENT

The Model W40190 Flow Computer is made up of a number of different types of individual modules mounted to a common backplane assembly or expansion backplane assembly. The equipment contains no sparking or arcing parts with the exception of the 6 Channel DO Relay that utilizes sealed relay devices.

The Model W40190 Flow Computer is not suitable for direct installation within the field. It is intended to be installed within a suitably ATEX compliant IP54 or better enclosure.

Variation 1 - This variation introduced the following changes:

- i. The addition of a new IEC 62591 WiHart Module, part number: W30381X0072 was approved.
- ii. The change of Applicants name and address from Fisher Controls a division of Emerson Process Management Remote Automation Solutions, 1612 South 17th Avenue, Marshalltown, Iowa 50158, USA to Bristol, . dba Remote Automation Solutions, 1100 Buckingham St., Watertown, Connecticut, 06795, and the lusion of an additional site Fromex S. A. de C. V. in Tamaulipas, Mexico was approved.
- iii. The recognition of minor drawing modifications; the introduction of new drawings, additional holes on the PCB, and the change of capacitor construction from tantalum to ceramic; these amendments are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety.

Variation 2 - This variation introduced the following change:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the documents previously listed in section 9, EN 60079-0:2006 and EN 60079-15:2005, were replaced by EN 60079-0:2012 and EN 60079-15:2010

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	29 April 2010	R19323A	The release of the prime certificate.
1	18 December 2012	R28398A/00	The introduction of Variation 1.
2	27 March 2015	R70028303A	The introduction of Variation 2.
3	15th October 2019	1675	<ul style="list-style-type: none"> • Transfer of certificate Sira 10ATEX4059X from Sira Certification Service to CSA Group Netherlands B.V.. • Type-Examination Certificate in accordance with 94/9/EC updated to Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(In accordance with Article 41 of Directive 2014/34/EU, Type-Examination Certificates referring to 94/9/EC that were in</i>

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			<i>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 Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</i>
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15 SPECIAL CONDITIONS FOR SAFE USE

- 15.1 Connections made to the LOI port (D-Type Connector) shall be mechanically secured in place with suitable screw connections to prevent loosening or disconnection during use.
- 15.2 The RJ45 connection (Ethernet Connection) on the Enhanced Communications Module shall have a mating connector with a functioning securing clip to prevent loosening or disconnection during use.
- 15.3 The Model W40190 Flow Computer shall be installed within an enclosure that is suitably-certified for the zone of use.
- 15.4 The area in which the equipment is used shall be a minimum of Pollution degree 2 as defined in IEC 60664-1, i.e. the environment should not contain conductive pollution and the equipment shall be installed in an indoor or sheltered location.
- 15.5 An electrical strength test shall be undertaken on a fully-installed Model W40190 Flow Computer. The test should be conducted between electrical connections 'AUX PWR IN', 'DVS', and 'DISPLAY' short circuited together and the metal base plate (Adaptor Panel) or local plant earth. One of the following voltages should be used:
- 500 V r.m.s. (+5%, -0%) for 60 seconds
 - 700 V d.c. (+5%, -0%) for 60 seconds

The maximum current flowing during the test shall not exceed 5 mA; there shall be no breakdown or flashover.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed reports listed in Section 14.2.

Certificate Annexe



Certificate Number: Sira 10ATEX4059X

Equipment: Model W40190 Flow Computer (FB107)

Applicant: Bristol, . dba Remote Automation Solutions

Issue 0

CPU Module Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W48083	1 of 1	F	23 Mar 10	CPU with/without Isolation (Bill of Materials and Assembly)
W38306	1 to 2	D	23 Mar 10	CPU with/without Isolation (Schematic)
W48084	1 of 1	A	23 Mar 10	CPU Interconnect with and without I/O (Bill of Materials and Assembly)
W38325	1 to 4	B1	23 Mar 10	CPU Interconnect with and without I/O (Schematic)

RS-232, RS-485, MVS and IO Module Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W48082	1 of 1	E	23 Mar 10	RS-232 / RS-485 / MVS / IO BASE (Bill of Materials and Assembly)
W38331	1 to 5	E1	23 Mar 10	RS-232 / RS-485 / MVS / IO BASE (Schematic)
W48092	1 of 1	B	23 Mar 10	RS-485 Based Application (Bill of Materials and Assembly)

Dial-Up Modem Module Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W38360	1 of 1	A	23 Mar 10	Dial-Up Modem (Bill of Materials and Assembly)
W38352	1 to 2	B1	23 Mar 10	Dial-Up Modem (Schematic)

Enhanced Communications Module Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W38361	1 of 1	B	23 Mar 10	Enhanced Communications (Bill of Materials and Assembly)
W38357	1 to 2	A2	23 Mar 10	Enhanced Communications (Schematic)

6 Channel DO Relay Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W38350	1 of 1	B	23 Mar 10	6 Channel DO Relay (Bill of Materials and Assembly)
W38342	1 of 1	A1	23 Mar 10	6 Channel DO Relay (Schematic)

6 point I/O Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W38334	1 of 1	A	23 Mar 10	6 Point I/O (Bill of Materials and Assembly)
W38332	1 to 2	A1	23 Mar 10	6 Point I/O (Schematic)

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8 Channel AI/DI Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W38349	1 of 1	A	23 Mar 10	8 Channel AI/DI (Bill of Materials and Assembly)
W38341	1 of 1	A1	23 Mar 10	8 Channel AI/DI (Schematic)

6 Channel AO/DO Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W38362	1 of 1	A	23 Mar 10	6 Channel AO/DO (Bill of Materials and Assembly)
W38356	1 to 2	A1	23 Mar 10	6 Channel AO/DO (Schematic)

3 Channel 4 Wire RTD Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W38351	1 of 1	A	23 Mar 10	3 Channel 4 wire RTD (Bill of Materials and Assembly)
W38343	1 to 2	B2	23 Mar 10	3 Channel 4 wire RTD (Schematic)

4 Channel HART Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W48096	1 of 1	A	23 Mar 10	4 Channel HART (Bill of Materials and Assembly)
W38353	1 to 9	A1	23 Mar 10	4 Channel HART (Schematic)

Main backplane and expansion backplane

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W48085	1 of 1	C	23 Mar 10	Main backplane (Bill of Materials and Assembly)
W38326	1 to 2	B2	23 Mar 10	Main backplane (Schematic)
W38333	1 of 1	B	23 Mar 10	Expansion backplane (Bill of Materials and Assembly)
W38329	1 of 1	A1	23 Mar 10	Expansion backplane (Schematic)

General Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
W40190	1 to 4	A	23 Mar 10	General Assembly and Label Drawing

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
400181-00-2	0 to 8	B	12 Oct 12	WiHART CPU(Schematic)
400181-01-0	1 to 7	A	12 Oct 12	BOM WiHART CPU
400181-75-4	1 of 1	A	12 Oct 12	PCB ASSEMBLY, WiHART Module
W38331	1 to 7	H1	12 Oct 12	Comm, IO Base,MVS & 485 Appl.9(Schematic)
W38342	1 of 1	B	12 Oct 12	6 Channel DO relay
W38350	1 of 1	C	12 Oct 12	Pcb Assy 6 channel DO relay

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W48082	1 of 1	F	12 Oct 12	Pcb Assy Comm (RS-232/RS-485/MVS/IO Base- Bill of Material and Assembly)
W48092	1 of 1	C	12 Oct 12	Pcb Assy R-485 Based Applications Module(BOM and Assy)
W48096	1 of 1	B	12 Oct 12	4Channel HART (Bill of Material and Assembly)
W40190	1 and 3	B	12 Oct 12	General Assy and Label Drawing
W40190	2 and 4	A	12 Oct 12	General Assy and Label Drawing

Issue 2 No new drawings were introduced.

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