



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 09ATEX2041X** Issue: **4**

4 Equipment: **FT152 2-Wire Retain (low level liquid) Sensor Probe**

5 Applicant: **Dixon Bayco**

6 Address: **4690F Interstate Drive
Cincinnati
Ohio 45246
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 60079-0:2006 EN 60079-11:2007 EN 60079-26:2007
IEC 60079-0:2007 (used for guidance in respect of marking)

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 1G

Ex ia IIB T4 Ga; Ta = -40°C to +70°C

Project Number 70024621

P J Walsh
Technical Advisor

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SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The FT152 is a bottom retain (low level liquid) detection sensor that has a 1/2" NPT mounting. The main sensor portion is stainless steel and the wiring box is manufactured from glass filled Nylon plastic to prevent corrosion, and is removable to facilitate installation. The sensor wires enter/exit the wiring box via side ports and terminate at the sensor PCB that is fully encapsulated within the stainless steel tube.

The plastic wiring box is manufactured from 33% Glass Filled Supertough Nylon DuPONT ZYTEL 80G33L which is coloured black.

The safety description is as follows:

Ui	=	13.7 V	Ii	=	180 mA
Pi	=	1 W	Ci	=	0 uF
Li	=	2 μH			

Variation 1 - This variation introduced the following changes:

- i. A number of changes to various drawings including:
 - R6 changed from 56kΩ to 39kΩ.
 - Addition of some informative text. This text does not affect compliance with the applied standards
- ii. The Applicant's address was changed from 4740T Interstate Drive, Cincinnati, Ohio, 45246, USA to that shown on page 1.

Variation 2 - This variation introduced the following changes:

- i. A change in the value of resistor R6 from 39k to 18k was endorsed.
- ii. A change of label material due to obsolescence was approved.
- iii. The encapsulant has now been fully specified.
- iv. Marking to include Li changed from 0 mH to.
- v. The introduction of two models based upon cable length 24 inch, and 60 inch the latter terminated with a plug.

Variation 3 - This variation introduced the following change:

- i. The corporate logo was added to the label.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	20 July 2009	R52A16755F	The release of the prime certificate.
1	21 April 2011	R52A16755F/01	Re issued to allow report R52A16755F/01 to replace R52A16755F
2	19 August 2011	R23939A/00	<ul style="list-style-type: none">• A typographical error in the marking was corrected.• The introduction of Variation 1.
3	18 September 2014	R70006530A	The introduction of Variation 2.
4	27 April 2015	R70024621A	The introduction of Variation 3.

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- 15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)
- 15.1 The apparatus is intended for fixed installations and the precautions to avoid risk from electrostatic discharge is highlighted in the installation instructions. The apparatus is marked with an 'X' as per the requirements of Clause 7.3.2 part e) of IEC 60079-0. Additionally the apparatus is marked with the electrostatic charge warning given in item g) of clause 29.8.
- 15.2 As aluminium is used at the accessible surface of this equipment ignition sources due to impact and friction sparks could occur in the event of rare incidents. This shall be considered when the FT152 Sensor is being installed, particularly in locations that specifically require Group II, Category 1G equipment.
- 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 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 A routine dielectric strength test of 500V r.m.s as required. by clause 10.3 of IEC 60079-11:2006 shall be conducted on each unit. The voltage shall be increased steadily to the specified value in a period of not less than 10 s and then maintained for at least 60 s. The applied voltage shall remain constant during the test. The current flowing during the test shall not exceed 5 mA r.m.s. at any time.

Certificate Annexe

Certificate Number: Sira 09ATEX2041X
Equipment: FT152 2-Wire Retain (low level liquid)
Sensor Probe
Applicant: Dixon Bayco



Issue 0

Drawing No.:	Sheets	Rev.	Date: (Sira Stamp)	Description
FT152_ATEX	1 of 1	A	17 Mar 09	FT152 Retain Sensor ATEX Approved for Europe
10134	1 of 1	C	17 Mar 09	Retain Sensor Cover Plate
10378_ATEX	1 of 1	A	17 Mar 09	FT152 Retain Sensor SMT Schematic
10381_ATEX	1 of 1	A	17 Mar 09	PCB, Blank FT152 Retain Sensor SMT
10474-1_ATEX	1 of 3	A	17 Mar 09	FT152 Retain Sensor SMT Top Assembly
10474-2_ATEX	2 of 3	A	17 Mar 09	FT152 Retain Sensor SMT Bottom Assembly
10474-3_ATEX	3 of 3	A	17 Mar 09	FT152 Part List
10471NY	1 of 1	B	17 Mar 09	Retain Housing
10472SS	1 of 1	A	17 Mar 09	Retain Prism Carrier - Machining
10475PL	1 of 1	A	17 Mar 09	Sleeve
10587	1 of 1	B	17 Mar 09	ATEX Marking – FT152

Issue 1 No new drawings were introduced.

Issue 2

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
10134	1 of 1	D	18 Aug 11	Retain sensor cover plate
10471NY	1 of 1	C	18 Aug 11	Retain housing
10472SS	1 of 1	B	18 Aug 11	Retain prism carrier – machining
10474-1_ATEX	1 of 3	B	18 Aug 11	FT 152 Retain Sensor SMT Top Assembly
10474-2_ATEX	2 of 3	B	18 Aug 11	FT 152 Retain Sensor SMT Bottom assembly
10474-3_ATEX	3 of 3	B	18 Aug 11	FT 152 Retain sensor SMT parts list
10475PL	1 of 1	B	18 Aug 11	Sleeve
10378_ATEX	1 of 1	B	18 Aug 11	FT152 Retain sensor SMT schematic

Issue 3

Drawing	Sheets	Rev	Date (Sira stamp)	Title
10378_ATEX	1 of 1	C	28-Jul-14	FT152 RETAIN SENSOR SMT SCHEMATIC
10474-1_ATEX	1 of 3	C	28-Jul-14	FT152 RETAIN SENSOR SMT TOP ASSEMBLY
10474-2_ATEX	2 of 3	C	28-Jul-14	FT152 RETAIN SENSOR SMT BOTTOM ASSEMBLY
10474-3_ATEX	3 of 3	C	28-Jul-14	FT152 RETAIN SENSOR SMT PARTS LIST ASSEMBLY
10474-PP-1_ATEX	1 of 3	A	28-Jul-14	FT 152_ATEX RETAIN SENSOR PLUG/PLAY, TOP ASSEMBLY
10474-PP-2_ATEX	2 of 3	A	28-Jul-14	FT 152_ATEX RETAIN SENSOR PLUG/PLAY, BOTTOM ASSEMBLY
10474-PP-3_ATEX	3 of 3	A	28-Jul-14	FT 152_ATEX RETAIN SENSOR PLUG/PLAY, PARTS LIST
10587	1 of 1	C	27-Aug-14	LABEL, RETAIN SENSOR FT152 TYPE
10713SSPL_ATEX	1 of 1	A	17-Sep-14	RETAIN SENSOR SUB-ASS FOR FT152 SERIES ATEX
10713SSPL-PP_AX	1 of 1	A	17-Sep-14	RETAIN SENSOR SUB-ASS FOR FT152PL-PP_AX SERIES ATEX
FT152_ATEX	1 of 1	B	28-Jul-14	FT152 RETAIN SENSOR ATEX APPROVED FOR EUROPE
FT152P_ATEX	1 of 1	A	27-Aug-14	FT 152_ATEX RETAIN SENSOR PLUG/PLAY,
10619_ATEX	1 of 1	E	25-Jul-14	PROBE PLUG - 2 WIRE

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Equipment: FT152 2-Wire Retain (low level liquid)
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Issue 4

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
10587	1 of 1	D	02 Apr 15	LABEL, RETAIN SENSOR FT152 TYPE

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