



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UK TYPE EXAMINATION CERTIFICATE**

2 Equipment Intended for use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 Certificate Number: **CSAE 21UKEX1224X** Issue: **0**

4 Product: **FT7000 Level Monitor**

5 Manufacturer: **Dixon Bayco**

6 Address: **7280 Union Center Blvd
West Chester
Ohio 45014
USA**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations. 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 has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-11:2012

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall be in accordance with Regulation 41 and include the following:



II 2(1) G
Ex db ib [ja Ga] IIB T4 Gb
Ta = -20°C to +60°C

Name: J A May
Title: Director of Operations



**UKUK
CANI**

CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK
This certificate and its schedules may only be reproduced in its entirety and without change

Certificate No. CSAE21UKEX1224X

DQD544.21 Issue 2 (2021-04-23)

Page 1 of 4

SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 21UKEX1224X
Issue 0

13 DESCRIPTION OF PRODUCT

The FT7000 is an electronic device for the specific purpose of continuous monitoring of liquid levels and the prevention of electrical grounding while filling of transportable liquid tanks. It consists of a single compartment flameproof enclosure with an external intrinsically safe lighted display board.

Entity Parameters:

P_m= 13 W U_m = 250 V
U_o= 12.6 V I_o= 0.187 A P_o= 0.59 W C_o= 7.4 µF L_o= 9.1 mH

The FT7000 has an internal PCB mounted power supply rated for 110-240 VAC, 50-60 Hz and a maximum power draw of 13 watts. The FT7000 is rated for ambient temperatures from -20°C to +60°C.

The FT7000 enclosure is rectangular, single-compartment, cast metal housing comprised of low copper aluminium alloy (ASTM A356-T6) (which does not contain more than 7.5% magnesium, titanium and zirconium by mass). A portion of the exterior is coated with an epoxy-polyester powder-coating paint.

The overall dimensions of the enclosure are approximately 12.443 inches by 13.130 inches by 4.046 inches (316.04mm by 333.50mm by 102.78mm).

Four 1/2-14 NPT entries are provided for installation to threaded conduit or use with cable glands supplied with each unit.

The following accessories are shipped with the following equipment and are intended for use in the final installation as applicable.

Cable Glands - EXN04ALC2 (KPX-EX), Nickel Plated Brass, manufactured by ABB Installation Products. Ex d IIC Gb; Ex e IIC Gb; Ex tb IIC Db, for use only with unarmoured TC-ER-HL cable and Ex e IIC, for use only with unarmoured TC, TC-ER and TC-ER-HL cable. IP66/IP68. Operating temperature -20°C to 100°C.

Stopping plugs EXN/050/SP 1/2-14 NPT Nickel Plated Brass. By ABB Installation Products. Ex d I Mb Ex d IIC Gb. Operating temperature -20°C to 200°C.

Mounting Hardware:

- (4) M10 x 70mm S.S. threaded bolt.
- (4) M10 S.S. split spring washer.
- (4) M10 S.S hex nut.

The product description includes the following applicable amendments, only amendments directly applicable to UKCA certification have been included in this list.

The amendments are numbered to include a reference to the previous ATEX variation at which these were introduced.

2a Upgrade from IP54 to IP66 ratings based on IEC 60529.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

**CSAE 21UKEX1224X
Issue 0**

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	16 August 2021	R80086272A	The release of the prime certificate.

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

15.1 The enclosure is manufactured from low copper aluminium alloy. In rare cases, ignition sources due to impact and friction sparks could occur.

15.2 Cover bolts:

- a) Property class: C-50
 - b) Yield Strength: 70,000 psi (482MPa)
 - c) Type: M10 x 1.5 30 mm long SHCS
- Fasteners shall only be replaced with identical M10 x 1.5 DIN 912 fasteners

15.3 Instructions are provided with each shipment, identifying proper torque values of 35 lb-ft. (47.5 Nm) for cover bolts.

15.4 Instructions are provided with each shipment, identifying proper torque values of 25 lb-ft. (32 Nm) for conduit stopping plugs / blanking elements and conduit adapter.

15.5 Cross-sectional area of PE conductors must be equal to or greater than the cross-sectional area of phase conductors.

15.6 For installations using cable glands provided with this equipment:

- a) When insert tap is removed in order to install the proper cable, the integrity of sealing rings have to be checked, in order to guarantee the correct tightness.
- b) If necessary, sealing rings have to be replaced with new ones (original spare parts only).
- c) Only EPDM rubber or Silicone sealing rings are permitted for installations with this equipment.
- d) Polyamide dome plug is not permitted for installation with this equipment.

15.7 The supply connection to the FT7000 must be made with rigid metal conduit or armoured cable or other means which provides adequate equipotential bonding of the equipment.

15.8 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.



SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 21UKEX1224X
Issue 0

17 PRODUCTION CONTROL

- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders
- 17.2 The product covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform CSA Group of any modifications of the devices that may impinge upon the explosion safety design of the product.



**UK UK
CANI**



Certificate Annexe

Certificate Number: CSAE 21UKEX1224X
 Product: FT7000 Level Monitor
 Manufacturer: Dixon Bayco

Issue 0

Drawing	Sheets	Rev.	Date (Stamped)	Title
10903-ATEX	1 of 1	B	06 Jun 19	FT7000 Power Supply Board PCB
10904-ATEX	1 of 1	C	09 Dec 20	FT7000 Power Supply Board Assembly (Sheets 1 to 4)
10904-BOM-ATEX	1 to 3	C	09 Dec 20	FT7000 Power Supply Board Assembly BOM
10905-ATEX	1 of 1	C	09 Dec 20	FT7000 Rack Monitor Power Board Schematic
10906-ATEX	1 of 1	A	06 Jun 19	FT7000 Logic Board Blank PCB
10907-ATEX	1 to 1	B	09 Dec 20	FT7000 Logic Board Assembly (Sheets 1 to 4)
*10907-BOM-ATEX	1 to 6	B	09 Dec 20	FT7000 LOGIC BOARD BOM
10908-ATEX	1 of 1	B	09 Dec 20	FT700 Rack Monitor Logic Board
10909-ATEX	1 of 1	B	06 Jun 19	FT7000 Display Board PCB
10910-ATEX	1 of 1	A	06 Jun 19	FT7000 Display Board Assembly (Sheets 1 to 3)
10910-BOM-ATEX	1 to 2	B	06 Jun 19	FT7000 Display Board Assembly BOM
10911-ATEX	1 of 1	D	06 Jun 19	FT7000 Rack Monitor Display Board (Schematic)
10968SS-ATEX	1 of 1	A	06 Jun 19	Cover Bolt
10982-ATEX	1 of 1	B	06 Jun 19	Potted Display Cable Assembly
11032AL-ATEX	1 of 1	C	06 Jun 19	Cable Gland (Machine drawing)
11039-ATEX	1 to 2	B	06 Jun 19	FT7000 Control Drawing
11041-ATEX	1 of 1	A	06 Jun 19	Lid O-ring
11172-ATEX	1 of 1	A	06 Jun 19	Potted Display Board Assembly
40472AL-ATEX	1 of 1	C	09 Dec 20	Rack Monitor Box (Machining drawing)
40473AL-ATEX	1 of 1	C	09 Dec 20	Rack Monitor Lid (Machining drawing)
40474PL-ATEX	1 of 1	A	06 Jun 19	Rack Monitor, Face Plate
FT7000	1 of 1	B	09 Dec 20	Rack Monitor (Main assembly drawing)
AP1308	1 to 4	A	06 Jun 19	Work Instruction for FT7000
10980-ATEX	1 of 1	G	16 Jun 21	FT7000 Label
11033PA-ATEX	1 to 38	G	18 Jun 21	Maintenance & Operating Instructions for Dixon Bayco FT7000

