1. UNITED KINGDOM CONFORMITY ASSESSMENT

UK-TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1**

3. **UK-Type Examination Certificate No:** **FM22UKEX0061X**

4. **Equipment or protective system: (Type Reference and Name)** **Model 882 Weighing System comprising: 882IS and 882IS Plus Digital Weight Indicators; mb-EPS-100-240-X2 Dual Output Power Supply & IS6V2 Battery Module.**

5. **Name of Applicant:** **Rice Lake Weighing Systems**

6. **Address of Applicant** **230 West Coleman Street, Rice Lake, Wisconsin 54868, United States of America**

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8. FM Approvals Ltd, Approved Body number 1725, 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 confidential report number:

   PR462394 dated 2nd December 2022

9. Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

   EN IEC 60079-0:2018, EN 60079-11:2012, EN 60079-18:2015+A1:2017,
   EN 60529:1991+A1:2000+A2:2013

10. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11. This UK-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance with the Regulations. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

Certificate issued by:

22 January 2026

Victor Aluko-Oginni
Certification Manager, FM Approvals Ltd.

Date

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12. The marking of the equipment or protective system shall include:

See Annex.

13. **Description of Equipment or Protective System:**

The Model 882 Weighing System comprises the 882IS or 882IS Plus Digital Weight Indicators; the mb-EPS-100-240-X2 Power Supply & the IS6V2 Battery Module.

The 882IS and 882IS Plus Digital Weight Indicators are housed in a rectangular stainless steel enclosure with an ingression rating of IP66 and incorporating the CPU board and LCD display visible through a polymeric overlay. The 882IS Plus Digital Weight Indicator incorporates a numeric keypad, the 882IS has a display with no keypad. The indicators are powered by an external power supply and have input parameters U_i = 7.9V, I_i = 3.65A, C_i = 37.68 µF, L_i = 0µH, P_i = 1.25W. There are five intrinsically safe input / output circuits: J1 Load Cell; J2 Digital Input; J3A RS485; J1 Fiber Optic and J3 Power Input.

The mb-EPS-100-240-X2 Dual Output Power Supply is housed in a rectangular steel enclosure and has fully encapsulated electronics. The power supply is intended for use with the 882IS and 882IS Plus Digital Weight Indicators and has U_{oc} = 7.875 V, I_o = 1.326 A, C_o = 8.8 µF, L_o = 20.2µH, P_o = 2.6 W A per channel. The IS6V2 Battery Module contains a 6V, 10AH sealed lead acid battery housed in a stainless steel enclosure. The supply provides one intrinsically safe output. The battery supply is intended for use with the 882IS and 882IS Plus Digital Weight Indicators and has U_o = 7.05 V, I_o = 3.56 A, C_o = 14.6 µF, L_o = 20.2µH, P_o = 6.0 W.

Operation Temperature Ranges:
The ambient operating temperature range of the Weighing System is -10°C to 40°C.

Electrical data:
See Annex

14. **Specific Conditions of Use:**

See Annex.

15. **Essential Health and Safety Requirements:**

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16. **Test and Assessment Procedure and Conditions:**

This UK-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for UKCA Marking, FM Approvals Ltd accepts no responsibility for the compliance of the equipment against all applicable Regulations in all applications.

This Certificate has been issued in accordance with FM Approvals Ltd's UKCA Certification Scheme.

17. **Schedule Drawings**

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Approved Body.

18. **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
7 December 2022	Original Issue.
22 February 2024	Supplement 1: Report Reference: RR239085 dated 26th January 2024. Description of the Change(s): Minor design and drawing changes not affecting compliance. Added a Specific Condition of Use for the mb-EPS-100-240-X2 which had been inadvertently omitted before. Annex added.
27 June 2024	Supplement 2: Report Reference: RR241529 dated 18th June 2024. Description of the Change(s): Minor documentation update. Modified formatting to move all Electrical Ratings to the Annex.
10 July 2025	Supplement 3: Report Reference: RR246387 dated 7th July 2025. Description of the Change(s): Minor design and drawing changes not affecting compliance.
22 January 2026	Supplement 4: Report Reference: RR248948 dated 9 January 2026. Description of the Change(s): Minor drawing changes not affecting compliance.

ANNEX

882IS, 882IS Plus. Digital Weight Indicator

Markings:

II 1 G Ex ia IIC T4 Ga -10ºC ≤ Ta ≤ +40ºC
II 2 D Ex ib IIIC T135°C Db -10ºC ≤ Ta ≤ +40ºC

Description of Equipment:

The Digital Weight Indicators are rated IP66

Electrical data:
Input parameters:

Connection	U_i	I_i	C_i	L_i	P_i
J3A	5.88 V	3.65 A	37.68 µF	0 µH	1.25 W
J3	7.9 V	3.65 A	6.38 µF	0 µH	6.27 W

Output parameters:

Connection	U_o	I_o	C_o	L_o	P_o
J1	5.88 V	150 mA	5.32 µF	1577 µH	220.5 mW
J2	5.88 V	500 mA	5.32 µF	140 µH	735 mW
J3A	5.88 V	3.65 A	5.32 µF	2.669 µH	1.25 W

Specific Conditions of Use:

1. The surface of the LCD display of the 882IS /882IS Plus Weight Indicator is considered to constitute an electrostatic discharge hazard. Clean only with a damp cloth.

IS6V2. Battery Module.

Markings:

II 1 G Ex ia IIC T4 Ga -10ºC ≤ Ta ≤ +40ºC
II 2 D Ex ib IIIC T135°C Db -10ºC ≤ Ta ≤ +40ºC

Description of Equipment:

Electrical data:

U_o	I_o	C_o	L_o	P_o
7.05 V	3.56 A	14.6 µF	2.8 µH	6.0 W

Specific Conditions of Use:

1. The IS6V2 Battery Module cable lockout device must be installed over the connection between the battery and the cable. Lockout device must be inplace at at all times in the hazardous area and can only be removed in a non-hazardous area. The lockout device must be re-installed prior to re-entering the hazardous area.
2. The IS6V2 Battery Module is for use only with the Model NP10-6 battery manufactured by ENERSYS.

mb-EPS-100-240-X2. Power Supply

Markings:

II 2(1) G Ex mb [ia Ga] IIC T4 Gb -10ºC ≤ Ta ≤ +40ºC
II 2(1) D Ex mb [ia Da] IIIC T135°C Db -10ºC ≤ Ta ≤ +40ºC

Description of Equipment:

Electrical data:

U_o	I_o	C_o	L_o	P_o
7.875 V	1.326 A	8.8 µF	20.2 µH	2.6 W

Specific Conditions of Use:

1. The mb-EPS-100-240-X2 is not for use in acidic atmospheres.

Blueprint Report

Rice Lake Weighing Systems 1000003334

Class No. 3610

Original Project I.D. *3062120*

Certificate I.D. FM22UKEX0061X

Drawing No.	Revision Level	Drawing Title	Last Report	Electronic Drawing
163768	C	GASKET 880 INDICATOR	RR224409	Yes (pdf)
174868	D	OVERLAY 882IS INDICATOR MEMBRANE SWITCH WITH NUMERIC KEYS	RR227796	Yes (pdf)
175220	D	OVERLAY 882IS INDICATOR MEMBRANE SWITCH WITH NUMERIC KEYS	RR227796	Yes (pdf)
180801	D	ENCLOSURE 882IS IS INDICATOR	RR246387	Yes (pdf)
180831	C	BATTERY OPTION IS6VS	RR227796	Yes (pdf)
180837	B	POWER SUPPLY MB-EPS-100-240-X2	3062120	Yes (pdf)
180862	D	LABEL FM DATAPLATE 882IS	RR239085	Yes (pdf)
182301	A	mb-EPS-100-240-X2 CONTROL DRAWING	3062120	Yes (pdf)
185634	A	IS POTTED BARRIER FOR IS6V2 BATTERY	3062120	Yes (pdf)
186430	A	IS6V2 BATTERY CONTROL DRAWING	3062120	Yes (pdf)
187140	A	POWER CORD ASSY 882IS POWER SUPPLY	3062120	Yes (pdf)
190545	D	LABEL FM DATAPLATE IS6V2 BATTERY BOX	RR239085	Yes (pdf)
190546	C	LABEL FM DATAPLATE MB-100-240-X2	RR239085	Yes (pdf)
191698	D	882IS/882IS Plus Conditions of Use in Hazardous Locations	RR239085	Yes (pdf)
221416	A	882IS Control drawing, Dual Fiber	RR239085	Yes (pdf)
882IS-IND	D	INDICATOR, 882IS PLUS LCD DISPLAY	RR246387	Yes (pdf)
A180631	B	PCB ASSY 882IS DUAL PWRSUP	RR220857	Yes (pdf)
A185628	A1	PCB ASSEMBLY IS6V2 BARRIER	RR241529	Yes (pdf)
A221062	A	PCB ASSY 882IS Dual Fiber CPU	RR239085	Yes (pdf)
B180631RB_BOM	B	ASSY PCB 882IS PWRSUP BOM	RR227796	Yes (pdf)
B185628RA_BOM	A1	ASSY PCB 185628 IS6V_BARRIER BOM	RR239085	Yes (pdf)
B221062RA1_BOM	A1	ASSY PCB 882IS DISPLAY/CPU Dual Fiber BOM	RR246387	Yes (pdf)
DS180631	B	PCB DESIGN SPEC 882IS DUAL POWER SUPPLY	RR220857	Yes (pdf)
DS185628	A2	PCB DESIGN SPEC IS6V2 BARRIER	RR241529	Yes (pdf)
DS221062	A1	ASSEMBLY, PRINTED CIRCUIT BOARD 882IS CPU Dual Fiber 221062	RR248948	Yes (pdf)
F180631	B	PCB FABRICATION 882IS DUAL POWER SUPPLY	RR220857	Yes (pdf)
F187278	A	PCB FABRICATION IS6V2 BARRIER BOARD	3062120	Yes (pdf)
F221062	A	PCB Fabrication 882IS, Dual Fiber CPU	RR239085	Yes (pdf)
RLW494	B	ENGINEERING SPEC SWITCH MEMBRANE	RR221534	Yes (pdf)
S180631RB_SCH	B	SCHEMATIC 882IS DUAL PWRSUP PCB BLOCK DIAGRAM	RR227796	Yes (pdf)
S185628RA_SCH	A	SCHEMATIC IS6V2 BARRIER IS BARRIER CKT	3062120	Yes (pdf)
S221062	A	882IS, Dual Fiber CPU RA1 PCB Block Diagram	RR239085	Yes (pdf)