



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **CSANe 20ATEX2257X** Issue: **0**

4 Equipment: **Remote Area Lighting System EX-MV01**

5 Applicant: **Dongguan Pan American Electronics Co., Ltd.**

6 Address: **No.175 BeiWang Road,
Zhongtang Town,
DongGuan City,
GuangDong Province,
China**

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.**, notified body number **2813** in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 IEC 60079-0:2018 EN 60079-11:2012

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 EU-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:



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Project Number 80081585

Signed: J A May

Title: Director of Operations

CSA Group Netherlands B.V.
Utrechtseweg 310, Building B42,
6812AR Arnhem, The Netherlands



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

**CSANe 20ATEX2257X
Issue 0**

13 DESCRIPTION OF EQUIPMENT

EX-MV01 Remote Area Lighting System is a portable lamp and it consists a non-metallic anti-static shell and aluminium alloy lamp housing. In the shell there are a rechargeable battery pack and a terminal block housing, where the battery charging protection board is fixed inside. In the lamp housing the LED light source board is fixed inside. The product contains LEDs on the LED light source board that are considered as non-array divergent LEDs and these LEDs are to be excluded based on Clause 1 of IEC 60079-28.

The only external connection on the equipment is a charging socket for the charger input on the shell of the equipment. The equipment is only to be charged outside the hazardous area.

The battery pack is comprised of nine series nickel metal hydride cells at 1.2V nominal, each with capacity of 9000mAh.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	20 July 2021	R80081585A	The release of the prime certificate.

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

15.1 The EX-MV01 Remote Area Lighting System shall only be charged in safe area using a charger approved as SELV or Class 2 equipment against IEC 60950 or an equivalent IEC standard. You may discuss with the manufacturer for the suitable battery charger for this equipment.

The maximum voltage and current from the charger U_m and I_m shall not exceed 16.0 Vdc and 1.8A respectively. The ambient temperature during charging shall be in the range 0°C to 40°C.

15.2 The lamp housing is manufactured from Aluminium and may be used at the accessible surface of the equipment. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered when the Remote Area Lighting System is being used in Zone 0 locations for group II level of protection Ga.

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 MANUFACTURE

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira/CSA Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

CSA Group Netherlands B.V.
Utrechtseweg 310, Building B42,
6812AR Arnhem, The Netherlands

Certificate Annexe



Certificate Number: CSANe 20ATEX2257X

Equipment: Remote Area Lighting System EX-MV01

Applicant: Dongguan Pan American Electronics Co., Ltd.

Issue 0

Drawing	Sheets	Rev.	Date (Stamped)	Title
EX-MV01-000	1 of 1	A0	18 Jan 21	EX-MV01 General Drawing
EX-MV01-001	1 of 1	A0	18 Jan 21	Upper shell
EX-MV01-002	1 of 1	A0	18 Jan 21	Lower shell
EX-MV01-021	1 of 1	A0	18 Jan 21	Cover-wiring board shell
EX-MV01-022	1 of 1	A0	18 Jan 21	Terminal block housing
EX-MV01-025	1 of 1	A0	18 Jan 21	Lamp cap
EX-MV01-026	1 of 1	A0	18 Jan 21	Lamp housing
EX-MV01-043	1 of 1	A0	18 Jan 21	MV01-Nameplate
EX-MV01-044	1 of 1	A0	18 Jan 21	Battery profile
EX-MV01-CS01	1 of 1	A0	18 Jan 21	Wiring diagram
EX-MV01-A.V1 SCH	1 of 1	A0	18 Jan 21	Schematic diagram of LED Light Source Board
EX-MV01-A.V1	1 to 2	A0	18 Jan 21	LED Light Source Board PCB
EX-MV01-B.V0 SCH	1 of 1	A0	18 Jan 21	Schematic diagram of terminal block
EX-MV01-B.V0	1 to 2	A0	18 Jan 21	Terminal block PCB
EX-MV01-BOM01	1 to 3	V1.0	18 Jan 21	Bill of material

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