

CERTIFICATE

(1) EU-Type Examination

(2) **Component intended for use on/in equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **DEKRA 19ATEX0053 U** Issue Number: **2**

(4) Product: **Wireless communication module, types: PSPL-WCM-V2-LIGHT, PSPL-WCM-V2-RN, PSPL-WCM-V2-AP, PSPL-WCM-V2-BTN, PSPL-WCM-V2-CL, PSPL-WCM-V2-PT1000**

(5) Manufacturer: **VDL-RENA Electronica BV**

(6) Address: **Industrieweg 13, 4881 EW Zundert, The Netherlands.**

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

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The examination and test results are recorded in confidential test report mentioned in item (16).

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018 + A11

EN 60079-11 : 2012

EN 60079-28 : 2015 + A11

except in respect of those requirements listed at item 18 of the Schedule.

(10) The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:



II 2 G Ex ib op is IIC Gb

Date of certification: 8 June 2026

DEKRA Certification B.V.

R. Schuller
Certification Manager



Throughout this document, a point is used as the decimal separator.

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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 19ATEX0053 U**

Issue No. 2

(15) **Description**

The wireless control module types PSPL-WCM-V2-LIGHT, PSPL-WCM-V2-RN, PSPL-WCM-V2-AP, PSPL-WCM-V2-BTN, PSPL-WCM-V2-CL and PSPL-WCM-V2-PT1000 are electronic boards in type of protection Ex ib and Ex op is.

Following module types are designed to be used within luminary for wireless access. They are to be powered by a certified Ex ib intrinsically safe interface. The WCM board provides wireless control and monitoring functions for the luminary.

- PSPL-WCM-V2-LIGHT: Via RJ9 connector.
- PSPL-WCM-V2-RN: Via screw terminal connector.
- PSPL-WCM-V2-AP: Via screw terminal connector.

Following module types are to be powered by a 3V battery pack. Depending the module type they provide interfacing to two mechanical switches, one temperature sensor or one current loop.

- PSPL-WCM-V2-BTN: For connecting one or two mechanical switches.
- PSPL-WCM-V2-PT1000: For connecting one PT1000 sensor.
- PSPL-WCM-V2-CL: For connecting one Ex ib certified 4-20mA current loop.

Depending the module type there are embedded sensors for measuring the temperature, relative humidity, vibration and ambient light. They all support wireless communication.

All module types are Ex components intended for fixed installation.

Module PSPL-WCM-V2-BTN can also be used for mobile tracking & tracing solutions.

Electrical data

Entity parameters per module type (pin assignment below):

PSPL-WCM-V2-LIGHT, Connector P3 (type RJ9):

PSPL-WCM-V2-RN, Connector P2 (screw terminals):

PSPL-WCM-V2-AP, Connector P2 (screw terminals):

$$U_i = 7.14 \text{ V}; I_i = 261 \text{ mA}; P_i = 465 \text{ mW}; L_i = 0 \text{ }\mu\text{H}; C_i = 7 \text{ }\mu\text{F}$$

PSPL-WCM-V2-BTN,

PSPL-WCM-V2-PT1000,

PSPL-WCM-V2-CL:

Connector P1 (header) – As battery supply input:

$$U_i = 3 \text{ V nominal}; 3.66 \text{ V maximum open-circuit voltage}; L_i = 0 \text{ }\mu\text{H}; C_i = 333 \text{ }\mu\text{F}$$

Connector P2 (screw terminals) – For the external interfacing.

Entity parameters per input:

PSPL-WCM-V2-BTN,

$$U_o = 3.66 \text{ V}; I_o = 7.8 \text{ mA}; P_o = 4.8 \text{ mW}; L_o = 10 \text{ }\mu\text{H}; C_o = 12 \text{ }\mu\text{F};$$

PSPL-WCM-V2-PT1000,

$$U_o = 3.66 \text{ V}; I_o = 10 \text{ mA}; P_o = 6 \text{ mW}; L_o = 20 \text{ }\mu\text{H}; C_o = 24 \text{ }\mu\text{F};$$

PSPL-WCM-V2-CL:

$$U_o = 3.66 \text{ V}; I_o = 3.9 \text{ mA}; P_o = 2.4 \text{ mW}; L_o = 20 \text{ }\mu\text{H}; C_o = 24 \text{ }\mu\text{F};$$

$$U_i = 30 \text{ V}; I_i = 25 \text{ mA}; L_i = 0 \text{ }\mu\text{H}; C_i = 0 \text{ }\mu\text{F}$$

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 19ATEX0053 U**

Issue No. 2

Pin assignments:

Connector P1 header pins:

PSPL-WCM-V2-BTN, -PT1000, -CL (pin1: supply input, pin2: removed, pin3: supply ground)

Note that pin3 is close to connector P2.

Connector P2 screw terminals:

PSPL-WCM-V2-RN (pin 1: RS485_A, pin 2: supply input, pin 3: RS485_B, pin 4: supply/signal ground),

PSPL-WCM-V2-AP (pin 1: RS485_A, pin 2: supply input, pin 3: RS485_B, pin 4: supply/signal ground),

PSPL-WCM-V2-BTN (pin1: switch2_A, pin2: switch2_B, pin3: switch1_A, pin4: switch1_B),

PSPL-WCM-V2-PT1000 (pin1: PT1000_A, pin2: PT1000_B),

PSPL-WCM-V2-CL (pin1: signal, pin 2 and pin 3 are interconnected, pin 4: return signal).

Note that pin1 is close to connector P1.

Connector P3 RJ9 pins:

PSPL-WCM-V2-LIGHT (pin1: supply/signal ground, pin 2: RS485_A, pin 3: RS485_B, pin 4: supply input)

Note that pin4 is close to the board edge.

Installation instructions

The manufacturers instructions shall be followed in detail to assure safe operation.

(16) **Report Number**

NL/DEK/ExTR19.0036/02.

(17) **Schedule of Limitations**

- Protecting enclosure required with IP20 rating minimum according IEC 60529.
- Ambient temperature range is -40 °C to +75°C.
- The clearance between the board parts and metal objects shall be 1.5 mm minimum.
- The clearance between the LED and any object shall be 1.5 mm minimum.
- Maximum board temperature is 94 °C under fault conditions.
- Maximum component temperature is 147 °C, for components with a surface area < 1000 mm².
- The PSPL-WCM-V2-BTN and PSPL-WCM-V2-PT1000 screw terminals shall only be connected to passive devices.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in test report number mentioned in item (16).