

EU-TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

EU-Type Examination Certificate Number: **DEMKO 19 ATEX 2118X Rev. 2**

Product: **LED Luminaires, Models VMVL *****L3* and VMVL *****M3***

Manufacturer: **Eaton's Crouse-Hinds Business**

Address: **1201 Wolf St., Syracuse, NY 13208 USA**

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

UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the 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 report no. **US/UL/ExTR19.0045/02.**

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

EN IEC 60079-0:2018

EN 60079-11:2012

EN 60079-31:2014

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

The marking of the product shall include the following (marking is provided in the Schedule as a part of item 15, if applicable):



II 2 D

Ex ia tb IIIC T135°C Db IP66

Certification Manager
Thomas Wilson

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2019-10-11

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Notified Body

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Description of Product

LED luminaires models VMVL*****L3* series of luminaires are composed of an LED housing, driver housing, various mounting covers, Power Board/Communication Board Assembly, and an optional Barrier Board Assembly/Occupancy Sensor ("ia"). The luminaire is provided with an integral sensor for remote monitoring and control. The entire enclosure is cast aluminum; the lens is either glass or plastic, the sensor enclosure is plastic, and there are three gasketed joints. The gasketed joints are between the mounting cover and the driver housing, between the driver housing and heatsink, and between the LED housing and lens.

The Barrier Board Assembly and Occupancy Sensor kit Model HZS-SS12 KIT can be provided as a field-installed accessory. See installation instructions no. IF 1961 for details.

LED luminaires models VMVL*****M3* series consist of the LED Driver compartment on one side, and the LEDs compartment on the other side. The external of the housing contains integral fins for heatsinking. The LED driver compartment side contains the LED driver, the Barrier Board Assembly and field wiring connections. The LEDs compartment side contains the LEDs (non-colored or colored), and the Controller Board. The luminaire housing is provided with threaded hole for mounting the bulkhead for the external Occupancy Sensor connection. The Occupancy Sensor function is for remote monitoring and control. The entire enclosure is cast aluminum; the lens is either glass or plastic, the sensor enclosure is plastic, and there are two gasketed joints. The gasketed joints are between the cover and the housing (LED driver compartment side), and between the housing (LEDs compartment side) and lens (glass or plastic).

The Barrier Board Assembly and Occupancy Sensor kit Model NHZS-SS12 KIT can be provided as a field-installed accessory. See installation instructions no. IF 1983 for details.

I.	Series Identifier: VMVL
II.	Lamp/Function -3 – 3000 Lumen LED -5 – 5000 Lumen LED -7 – 7000 Lumen LED -9 – 9000 Lumen LED -11 – 11000 Lumen LED -13 – 13000 Lumen LED
III.	LED Color Temperature No Suffix - Cool: 5000K N - Neutral: 4000K W - Warm: 3000K
IV.	Optics "R" followed by a digit designating Optic Type, followed by a digit or letter designating the rotation of LED MCPCB and optic lens with respect to the Top hat/Mounting Cover hinge. + No Suffix - TYPE 5 Standard (All mounts, all models +) R1 - Type 1 Optic (All Mounts Except ceiling) R1A - Type 1 Optic (Ceiling with conduit 45° counter-clockwise or 135° clockwise from hinge +) R1B - Type 1 Optic (Ceiling with conduit 45° clockwise or 135° counter-clockwise from hinge +) R3 - Type 3 Optic (All mounts except ceiling +) R3AP – Type 3 Optic (For use with Appleton top hat adapter) R3A1 - Type 3 Optic (Ceiling with conduit 45° counter-clockwise from top hat hinge +) R3A2 - Type 3 Optic (Ceiling with conduit 135° clockwise from top-hat hinge +) R3B1 - Type 3 Optic (Ceiling with conduit 45° clockwise from top-hat hinge +) R3B2 - Type 3 Optic (Ceiling with conduit 135° counter-clockwise from top hat hinge +) Note: + - Information for customer only. All Cat. No. VMVL luminaire fittings (housings) with UL Mark are not provided with mounting covers/top hats.
V.	Lens - No suffix - Clear glass lens DG - Diffused Glass lens (Division labeled devices only) PC - Polycarbonate lens UP - Uplight glass globe refractor TG - Teflon coated glass lens (Division labeled devices only)
VI.	Wire Guard [BLANK] – No Wire Guard G - Wire Guard
VII.	Voltage UNV1 - 100-277 VAC, 50/60Hz
VIII.	Optional suffix – Indicates optional construction features


Solutions

Accredited by DANAK under registration number 7011 to certification of products.

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	SS12 – Factory-installed HZS-X12-M3 Barrier Board Assembly and Occupancy Sensor (12' to 30' mounting height) TBX – Terminal Block 'X' signifies the number of poles SC - Supplemental cable attachment TM – Trunnion Mount Kit PV – Fixture provided with 94205-X PVC coating
IX.	L3 - Design Version
X.	DR – may be followed by up to seven digits (indicates no change in construction, ordering purposes only)

NOMENCLATURE:

Example:

Model No.	VMVL	-7	-W	-R1	-PC	-G	-UNV1	-SS12	-M3	-DRXXXXXX
	I	II	III	IV	V	VI	VII	VIII	IX	X
I.	Series Identifier: VMVL									
II.	Lamp/Function 3 – 3000 Lumen LED 5 – 5000 Lumen LED 7 – 7000 Lumen LED AT – True Amber (2000 Lumens) GT – True Green (3000 Lumens)									
III.	LED Color Temperature No Suffix – Cool 5000K 70 CRI N – Neutral 4000K 70 CRI W – Warm 3000K 80 CRI D – Dark Sky/Deep Warm 2200K 70 CRI									
IV.	Optics “R” followed by a digit designating Optic Type, followed by a digit or letter designating the rotation of LED MCPCB and optic lens with respect to the Top hat/Mounting Cover hinge. + No Suffix - TYPE 5 Standard (All mounts, all models +) R1 - Type 1 Optic (All Mounts Except ceiling) R1A - Type 1 Optic (Ceiling with conduit 45° counter-clockwise or 135° clockwise from hinge +) R1B - Type 1 Optic (Ceiling with conduit 45° clockwise or 135° counter-clockwise from hinge +) R3 - Type 3 Optic (All mounts except ceiling +) R3AP – Type 3 Optic (For use with Appleton top hat adapter) R3A1 - Type 3 Optic (Ceiling with conduit 45° counter-clockwise from top hat hinge +) R3A2 - Type 3 Optic (Ceiling with conduit 135° clockwise from top-hat hinge +) R3B1 - Type 3 Optic (Ceiling with conduit 45° clockwise from top-hat hinge +) R3B2 - Type 3 Optic (Ceiling with conduit 135° counter-clockwise from top hat hinge +) Note: + - Information for customer only. All Cat. No. VMVL luminaire fittings (housings) with UL Mark are not provided with mounting covers/top hats.									

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V.	Lens No suffix - Clear glass lens DG - Diffused Glass lens (Division labeled devices only) PC - Polycarbonate lens UP - Uplight glass globe refractor TG - Teflon coated glass lens (Division labeled devices only)
VI.	Wire Guard [BLANK] – No Wire Guard G - Wire Guard
VII.	Voltage UNV1 - 100-277 VAC, 50/60Hz; 127-250 VDC
VIII.	Optional suffix – Indicates optional construction features SS12 – Factory-installed HZS-M4 Barrier Board Assembly and Occupancy Sensor (12' to 30' mounting height) TBX – Terminal Block 'X' signifies the number of poles SC - Supplemental cable attachment TM – Trunnion Mount Kit
IX.	M3 - Design Version
X.	DR – may be followed by up to seven digits (indicates no change in construction, ordering purposes only)

Performance testing

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate.

Temperature range

Lamp Type	Voltage	Ambient Temperature	Gas ¹	Dust ¹
VMVL -3, -5, -7, -9, -11*****L3*	100-277Vac	-40°C to +40°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +55°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +65°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
VMVL-13*****L3*	100-277Vac	-40°C to +40°C	Ex ec ia IIC T5 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +55°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
VMVL-3 thru VMVL-7*****M3*	100-277Vac 127-250Vdc	-40°C to +40°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +55°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +65°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
VMVL-AT*****M3*	100-277Vac 127-250Vdc	-40°C to +40°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +55°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +65°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
VMVL-GT*****M3*	100-277Vac 127-250Vdc	-40°C to +40°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +55°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66
		-40°C to +65°C	Ex ec ia IIC T4 Gc	Ex ia tb IIIC T135°C Db IP66

¹NOTE: The Barrier Board Assembly provides intrinsically safe circuits for connection only to the Occupancy Sensor ("ia"). This can be factory installed using suffix -SS12, or field installed using field installed accessory kit model HZS-SS12 KIT for VMVL*****L3* luminaires or kit model NHZS-SS12 KIT for VMVL*****M3* luminaires.

Electrical data

Cat No.	Voltage	Current	Watt
VMVL-3*****L3*	100-277 VAC 50/60 Hz	0.30 A	26 W
VMVL-5*****L3*	100-277 VAC 50/60 Hz	0.48 A	43 W
VMVL-7*****L3*	100-277 VAC 50/60 Hz	0.65 A	59 W
VMVL-9*****L3*	100-277 VAC 50/60 Hz	0.85 A	79 W
VMVL-11*****L3*	100-277 VAC 50/60 Hz	1.0 A	93 W
VMVL-13*****L3*	100-277 VAC 50/60 Hz	1.0 A	93 W

Cat No.	Voltage	Max. Current	Max. Watt
VMVL-3*****M3*	100-277 VAC 50/60 Hz 127-250VDC	0.26 A	23 W
VMVL-5*****M3*	100-277 VAC 50/60 Hz 127-250VDC	0.45 A	39 W
VMVL-7*****M3*	100-277 VAC 50/60 Hz 127-250VDC	0.60 A	54 W
VMVL-AT*****M3*	100-277 VAC 50/60 Hz 127-250VDC	0.37 A	33 W
VMVL-GT*****M3*	100-277 VAC 50/60 Hz 127-250VDC	0.27 A	23 W

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Routine tests

None

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Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

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Specific conditions of use:

Instructions shall include the following: *"To reduce the risk of ignition due to electrostatic discharge, avoid contact with the luminaire while an explosive atmosphere is present. Clean only with a damp cloth."*

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Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The VMVL LED luminaires have in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.

The trademark  **Crouse-Hinds** or by  **EATON** or 

will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.