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CE 2813  
UK  
CA 0518

## Making Hazardous Environments Work

# TYPE ML100 MINING LED LUMINAIRE

EXPLOSION PROOF LUMINAIRE WITH FLAMEPROOF PROTECTION (TYPE d)

**Certification number ITS 08 ATEX 15815 I M2 Ex db I Mb IP65**

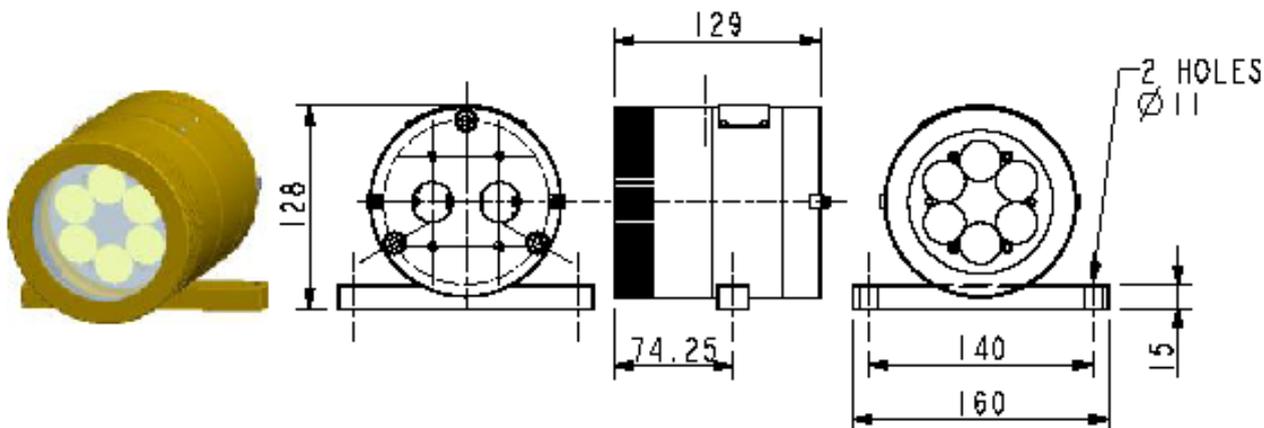
**Certification number IECEx ITS08.0012 Ex db I Mb IP65**

**Certification number ITS22UKEX0514 I M2 Ex db I Mb IP65**

The certificate carries the group and category marking: - I M2

Where: I signifies suitability for use in mining and M2 signifies suitability for use in mines where it must be de-energised in the presence of an explosive atmosphere.

For India only – These luminaires have been designed in accordance with IS/IEC 60079-0:2004 and IS/IEC 60079-1:2007. Test report number CIMFR/TC/P/H552.



### IMPORTANT

1. Read this leaflet carefully before commencing to install the luminaire and retain it for future reference.
2. Check the rating label to ensure that the luminaire is suitable for the supply provided.
3. The operating temperature range is  $-15^{\circ}\text{C}$  to  $+45^{\circ}\text{C}$ .
4. The luminaire **MUST** be earthed.
5. Under **NO** circumstances should a luminaire be opened, even when isolated, when an explosive gas or dust environment is present.
6. The luminaire housing can be manufactured from brass, steel, or stainless steel.
7. **DO NOT LOOK DIRECTLY INTO BEAM.**

### INSTALLATION

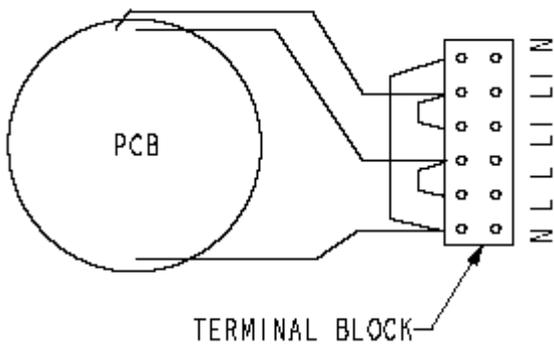
#### a) Mounting

Item number 193080  
January 2024

The luminaire is supplied with mounting brackets as shown in the diagram on the front of this leaflet. The luminaire must be securely fastened in place. It can be mounted in any attitude.

**b) Cable entries**

Up to two cable entry holes for the accommodation of a suitable certified flameproof cable entry device/blanking plug ( with or without the interposition of a suitable flameproof adaptor ). The flameproof cable entry device/blanking plug/adaptor must be certified as Group I equipment. The cable entry devices and cabling methods used in service must be suitable for their intended duty and the special types of cable used in mining. Access to the terminal block is made by removing the three socket cap head screws on the rear of the unit. The terminal block is suitable for 4mm<sup>2</sup> cable.



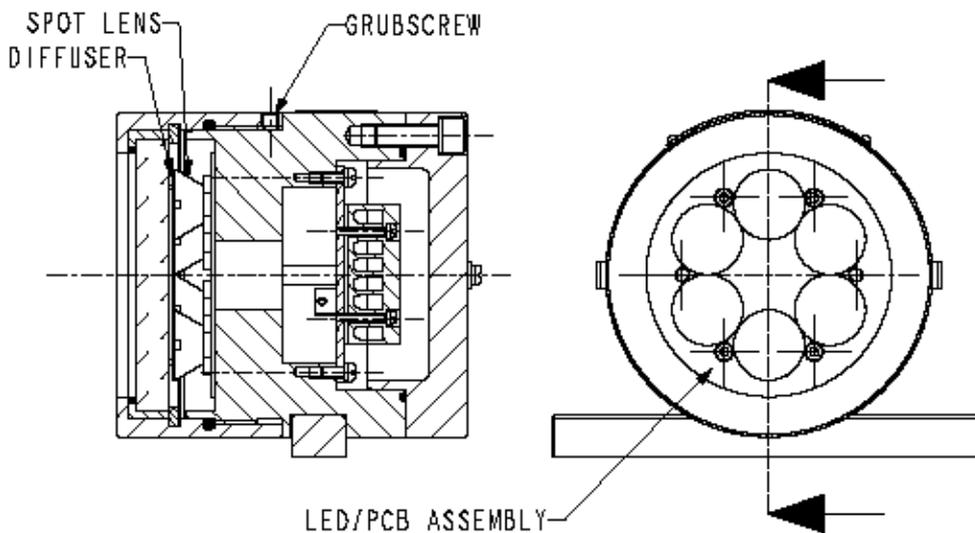
The luminaire can be switched between white LED's ( forward ) and red ( tail ). N and L for white, or N and L1 for red.

All terminal screws, used and unused should be fully tightened down.

Only one conductor per terminal.

**WIRING DIAGRAM**

**FITTING OR REPLACING LED/PCB AND OR LENSES AND DIFFUSERS**



1. Remove the retaining screws from the rear cover. Remove cover and unscrew terminal screws connecting cables from the PCB.
2. Loosen the grub screw in the lampglass assembly so that the whole assembly can be unscrewed and removed.
3. Remove the four screws and washers holding the PCB in place and remove the PCB.
4. Replace the PCB connecting the cables to the terminal block ensuring all terminal screws are fully tightened down. Fasten the PCB in place using the four screws and washers.
5. If spot lenses are to be fitted, place over the LED's and press in place so that the self adhesive pad is firmly adhered to PCB.
6. If diffusers are to be fitted, locate over spot lens and press gently in place ensuring the clips are engaged.
7. Grease the threaded spigot on the main body and the spigot on the rear cover with a non-setting grease such as silicone grease.
8. Ensure O ring is fitted then crew the lampglass assembly fully home and tighten the grub screw.

9. Re-fit rear cover ensuring O ring is in place in main body. Fully tighten the 3 fixing screws and washers provided.

### MAINTENANCE AND INSPECTION.

Frequency of inspection must be determined by the installer, but should be frequent enough to ensure that the luminaires continue to work in their designed manner. The more onerous the working conditions, the more frequent the inspection. The interval should never exceed two years.

The following list indicates some of the points that should be given particular attention. Suitable repairs should be carried out if required:-

- a) Clean all flameproof paths using a non-metallic or suitable non-corrosive cleaner and examine the flameproof paths for signs of damage. Replace damaged parts.
- b) Dirty lampglasses should be cleaned.
- c) Replace cracked or damaged lampglasses.
- d) Replace any missing fasteners with items of the correct type and quality.
- e) Fit new gaskets, lock-washers, etc as appropriate.
- f) Grease all flamepaths and screw threads with a non-setting grease (e.g. silicone )
- g) Ensure that blind tapped holes are clear of dirt, etc that could prevent correct closure of joints.
- h) Do not over-tighten fasteners on re-assembly.
- i) Ensure all mountings are secure and not corroded.
- j) Check cable glands for tightness and check the luminaire is efficiently earthed.
- k) Check resined joints for deterioration. If damaged, then the assembly must be replaced in its entirety. Resined components cannot be repaired except by the manufacturer.
- l) Any mechanically damaged parts must be replaced.

### GENERAL

All components that are replaced should be in accordance with the manufacturer's specification. Failure to use approved parts invalidates the certification and approval of the luminaire and may make it dangerous.

NO modifications should be made to the luminaire without the knowledge and approval of the manufacturer.

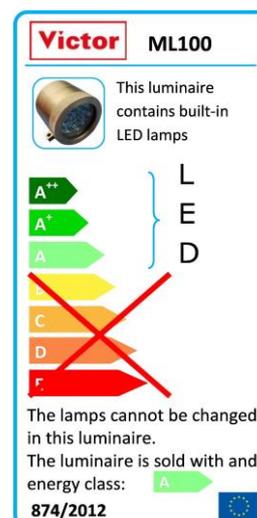
### HEALTH AND SAFETY AT WORK etc. ACT 1974

In the United Kingdom all equipment must be installed, operated and disposed of (as required) within the legislative requirements of the Health and Safety at Work etc. Act 1974. Leaflet No. HSS L1 refers to the Company's obligation and is available on request.

It is the responsibility of the user to select, install, operate and maintain the equipment in accordance with the relevant legislation and appropriate code of practice.



EU Only WEE Producers Identification No. WEE/EA 0073UQ



Prices and design are subject to alteration without notice. All products are sold subject to our conditions of sale, copies of which are available on request.

*We reserve the right to change characteristics of our products. All data is for guidance only.*

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# UK Declaration of Conformity



Victor Products Ltd  
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NE33 5SQ  
United Kingdom

## TYPE ML100 MINING LED LUMINAIRE Certification number ITS22UKEX0514

Victor Products Ltd

Hereby declare our sole responsibility that the product which is the subject of this declaration is in conformity with the following standards or normative documents.

Number and date of standard	UK Legislation
BS EN IEC 60079-0:2018 BS EN 60079-1:2014	Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016
EN 50082 (1992) EN 55015 (1993) EN 60555-2 (1987)	2016 No 1091: Electromagnetic Compatability
<b>UK Approval Body:</b> CSA Group Testing UK Ltd Deeside CH5 3US Notified Body No. 0518	 P. Devlin Operations Manager January 2024

SERIAL NUMBER

# Declaration of conformity

Déclaration De Conformité  
Konformitätserklärung



Victor Products Ltd  
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NE33 5SQ  
United Kingdom

## TYPE ML100 MINING LED LUMINAIRE Certification number ITS 08 ATEX 15815 IECEX ITS08.0012

Victor Products Ltd

Hereby declare our sole responsibility that the product which is the subject of this declaration is in conformity with the following standards or normative documents.

Erklären in alleiniger Verantwortung, daß das Product auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder normativen Dokumenten Übereinstimmt.

Déclarons de notre seule responsabilité, que le produit auquel cette déclaration se rapporte, est conforme aux norme(s) ou aux documents normatifs suivants.

<b>Number and date of standard</b> Nr. Sowie Ausgabedatum der Norm No. Ainsi que date d'émission des normes.	<b>Directive description</b> Bestimmungen der Richtlinie Prescription de la directive
BS EN IEC 60079-0:2018 BS EN 60079-1:2014	<b>Equipment and protective systems intended for use in potentially explosive atmospheres.</b> This Attestation is valid for directive 2014/34/EU.  Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen. Diese Bescheinigung gilt für die Richtlinie 2014/34 /EU.  Appareils et systèmes de protection destinés à être utilisés en atmosphères explosibles. Cette Attestation est valable pour la directive 2014/34 /UE.
EN 50082 (1992) EN 55015 (1993) EN 60555-2 (1987)	2014/30/EU: Electromagnetic Compatability  2014/30/EU: Elektromagnetische Verträglichkeit  2014/30/EU: Compatabilité électromagnétique
<b>Notified Body:</b> CSA Group Netherlands B.V. Notified Body No. 2813	 P. Devlin Operations Manager January 2024

SERIAL NUMBER