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## INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

# TITAN II VL147

WELLGLASS LUMINAIRE WITH FLAMEPROOF PROTECTION (type 'd') AND INCREASED SAFETY AND ENCAPSULATION PROTECTIONS (type 'e' and 'm')

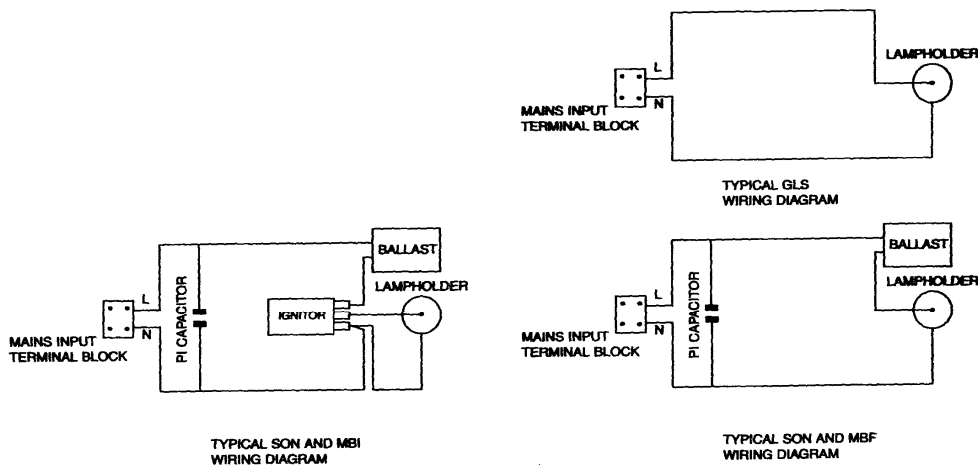
VL147 IP66/67 SIRA04ATEX1220 IEC IECEx C EEx II2 GD EEx dem IIC T# -50°C to # °C # = see table below. IEC Ex SIR04.0033 Ex dem IIC T# -50°C to # °C # = see table below

U = universal mounting P = pendant mounting

LAMP	T3		T4		T5		T6		Dust temp (above ambient)		Incoming cable temp above ambient
	U	P	U	P	U	P	U	P	U	P	
50W - 70W SON, 70W MBI	70°C	70°C	55°C	70°C	25°C	50°C	N/A	35°C	75°C	50°C	24°C
150W SON *	47°C	47°C	25°C	25°C	N/A	N/A	N/A	N/A	105°C	75°C	40°C
70W MBI	70°C	70°C	55°C	70°C	25°C	50°C	N/A	35°C	75°C	50°C	24°C
100W MBI	60°C	60°C	N/A	50°C	N/A	N/A	N/A	N/A	115°C	80°C	38°C
150W MBI	47°C	47°C	25°C	25°C	N/A	N/A	N/A	N/A	105°C	75°C	40°C
50W MBF	70°C	70°C	55°C	70°C	25°C	50°C	N/A	35°C	75°C	50°C	24°C
80W MBF	68°C	68°C	40°C	68°C	N/A	35°C	N/A	20°C	90°C	60°C	31°C
125W MBF	60°C	60°C	N/A	50°C	N/A	N/A	N/A	N/A	115°C	80°C	38°C
200W GLS MAX	65°C	65°C	N/A	65°C	N/A	35°C	N/A	N/A	110°C	65°C	38°C

\* LAMP MANUFACTURED BY IWASAKI LIGHTING ONLY

### WIRING DIAGRAM



**SPECIAL CONDITIONS FOR SAFE USE**

None

**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 luminaire must be installed in accordance with the recognised code of practice e.g. EN60 079.
4. High voltage insulation testing may be carried out, but the test voltage must not exceed 500V DC.  
**WARNING:** Any faults to earth within the luminaires may result in permanent damage to the electronic control unit. This possibility can be avoided by shorting the live and neutral cables together and applying the test voltage between this connection and earth.
5. The luminaire **MUST** be earthed
6. The operating temperature range for the luminaire is shown on the rating label. The luminaire should not be used outside these temperatures.
7. If the luminaire is to be installed in areas of high vibration, please consult the manufacturer.
8. Under **NO** circumstances should a luminaire be opened, even when isolated, when an explosive gas or dust environment is present.
9. Do not use excessive force on plastic components.
10. The luminaires are designed and constructed to EN60598.
11. 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.*

**GENERAL INSTALLATION NOTES.**

1. Do not attempt installation until you are familiar with all warnings, precautions and procedures within this instruction sheet.
2. Refer to the wiring diagrams for correct installation.
3. Do not over tighten fasteners into plastic parts.
4. Ensure that the mains cable connectors are correctly secured to the terminal block(s). Only one conductor should be fitted to each terminal block. All terminal screws should be fully tightened whether a conductor is fitted or not.
5. Blanking plugs and cable glands must be of the correct type and must be fitted to the manufacturer's specification to ensure that the seals prevent the ingress of moisture or dust and so maintain the luminaire's IP rating.

**GENERAL MAINTENANCE NOTES.**

1. **IMPORTANT.** Isolate the luminaire from both switched and unswitched mains supplies before carrying out any maintenance work.
2. Lamps must be changed at the intervals recommended by the lamp manufacturer.
3. It is essential that all luminaires together with their associated cables, glands, etc. which make up the installation are maintained in such a manner as to ensure the integrity of the protection to which it is designed.
4. The frequency of inspection must be determined by the user, but should be regular enough to ensure that the luminaire installation continues to operate in the designed manner. The more onerous the operating conditions, the more frequent the inspections should be. It is recommended that the interval between inspections should not exceed two years.
5. Plastic components may be cleaned with water containing a small amount of detergent, followed by a clean water wash. Surplus water can be wiped off plastic components, but they should not be wiped or polished with a dry cloth to avoid a build up of static electricity.
6. **IMPORTANT.** All components that are replaced must be in accordance with the manufacturer's specification. Failure to use such components invalidates the certification, approval and warranty of the luminaire and may make it dangerous. NO modification should be made to the luminaire without the knowledge and approval of the manufacturer. If in doubt, refer to the manufacturer.

**TECHNICAL DATA**

Total circuit watts: 50W SON = 60 W, 70W SON = 80W, 50W MBF = 60W, 80W MBF = 90W, 125W MBF = 140W, 70W MBI =80W  
 100W MBI = 120W, 150W MBI =165W, 100W GLS = 100W, 200W GLS = 200W, 150W SON = 165W

Power factor correction is better than 0.85

The luminaire housing is made from aluminium alloy (body) and toughened borosilicate glass (lens), secured in place with a polyurethane resin. The user must ensure that these materials are suitable for the atmosphere the luminaire will be installed in.

**SPECIAL NOTES**

Please consult the manufacturer if these units are to be used in areas of high vibration.

It is important to fit the correct lamp. Check the marking : For SON lamps  $\triangle$  = lamp with internal ignitor;  $\triangle$  = lamp with an external ignitor,  
 The luminaire may be mounted in any orientation, but the 'T' ratings and max ambients will change as detailed in the table on the front sheet.

**INSTALLATION AND MAINTENANCE NOTES SPECIFIC TO THIS PRODUCT.**

**INSTALLATION:** The unit is supplied with a mounting lugs as standard to allow the luminaire to be mounted directly to the ceiling / floor, etc. A wide range of other mounting accessories are available on request. Wire guards, external reflectors and coloured lampglass are also available. The incoming cable should be suitable for the conditions of service including the temperature rise as detailed in the table on the front sheet. The terminal block is suitable for accepting cables in the size range 0.5mm<sup>2</sup> to 6mm<sup>2</sup>. Internal and external earths are provided.

**MAINTENANCE:** Periodically clean all flamepaths using a non-metallic scraper and / or suitable non-corrosive cleaners. Inspect for pitting and replace any damaged items. Regrease flamepaths and screws with a silicone (or similar non-setting) grease prior to re-assembly. Fit new gaskets, lock washers, etc if part of the original design and replace any missing fasteners with items of the correct quality. Replace any faulty lamps with the correct type.

The lampglass assembly forms part of a flameproof enclosure and must be supplied complete by the manufacturer. The glass alone cannot be replaced by the user. During re-assembly ensure that screw holes are free from accumulated grease or dirt, which may prevent correct closure of joints, or cause damage to the threads. Do not over-tighten screws as this could cause distortion of the flamepaths or excessive stress in components. Ensure all mountings are secure, cable glands are secure and the unit is correctly earthed. Missing paintwork should be replaced, but care should be taken if the unit is to be fully re-painted as this may affect the surface temperature classification of the enclosure.

If mechanical damage occurs to any part of the enclosure then it must be checked to ensure that it is still flameproof. If in doubt replace the main components.

**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 codes of practice.

**Disposal of Material**



Any disposal must satisfy the requirements of the WEEE directive [2002/96/EC] and therefore must not be treated as commercial waste. The unit is mainly made from incombustible materials. The control gear contains plastic, resin and electronic components. All electrical components may give off noxious fumes if incinerated.



To comply with the Waste Electrical and Electronic Equipment directive 2002/96/EC the apparatus cannot be classified as commercial waste and as such must be disposed of or recycled in such a manner as to reduce the environmental impact.

**VICTOR LIGHTING**

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 standards	Directive description
EN50082 (1992) EN55015 (1993) EN 60555-2 (1987)	89/336 EEC: Electromagnetic Compatibility
EN 50014 (1998) EN 50018 (2000) EN 50019 (2000) EN 50028 (1987) EN 50281 (1999)	94/9 EC: Equipment and protective systems intended for use in potentially explosive atmospheres.
<b>CE Mark</b> 	The CE marking of this product applies to "The Electrical Equipment (Safety) Regulations 1994", "The Electromagnetic Compatibility Regulations 1992", the "Waste Electrical and Electronic Equipment Regulations 2006" and the "Equipment and Protective Systems intended for use in Explosive Atmospheres Regulations 1996". [This legislation is the equivalent in UK law of EC directives 2006/95/EC, 2004/108/EC and 2002/96/EC respectively].
<b>ATEX Directive</b>	The Equipment is declared to meet the provisions of the ATEX directive (94/9/EC) by reason of the EC Type Examination and compliance with the Essential Health and Safety Requirements.
<b>Notified Body:</b> SIRA Certification Services (0518) Rake Lane Eccleston Chester, CH4 9JN	 Ian MacLeod (Technical Manager) August 2005

For Technical support, please contact [technical@victor-lighting.com](mailto:technical@victor-lighting.com)

Note: Victor Lighting reserves the right to amend characteristics of our products and all data is for guidance only.