

Clarius®

Clarius EP PLUS LED FLOODLIGHT Installation Guide

CERTIFICATION: SIR A09ATEX5159X AND IECEx SIR 09.0064X AND ABS 11-LD801943-PDA
II 2 G D Ex emb IIC T4 Gb Ex † III C T103oC Db IP66/67 T4 -20 oC to +50 oC



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IMPORTANT INFORMATION

The Clarius EP Plus series of explosion protected floodlights are specialist devices, certified for use in hazardous gas and dust operating environments.

The units must be installed in accordance with these instructions, must be correctly certified for the specific operating environment and must be installed by suitably qualified personnel.

If you have any queries about the installation or the certification of the unit – please contact GJD for immediate assistance and advice.



1. SAFETY INSTRUCTIONS

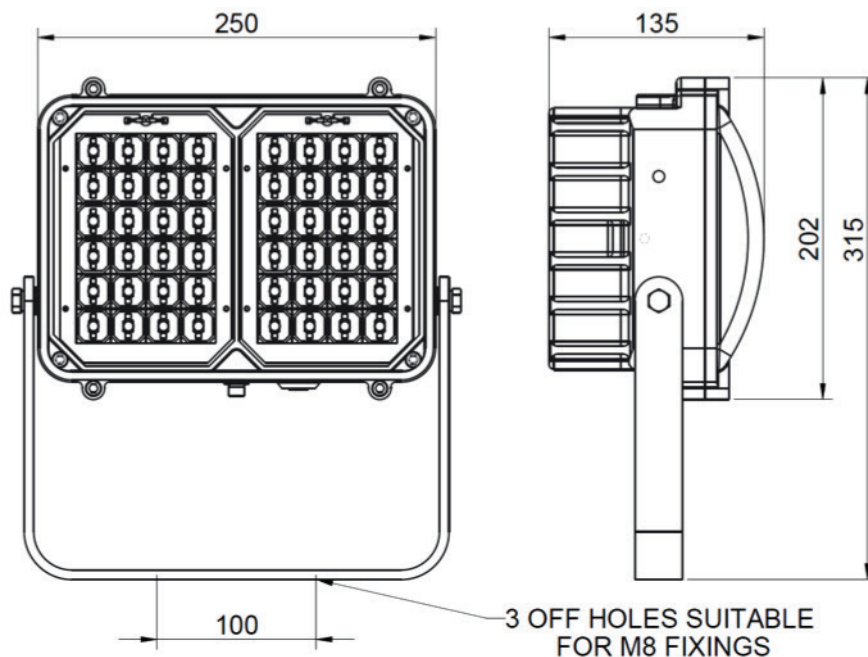
1. Read this leaflet carefully before commencing to install the Clarius EP Plus unit and retain it for future use. Installation can only be carried out by suitably qualified personnel.
2. Check the certification nameplate attached to the floodlight to ensure that the mains supply and the ambient temperature present is suitable for the unit being installed.
3. If the Clarius EP Plus unit is to be installed in areas of high vibration, please consult with GJD.
4. The Clarius EP Plus unit housing is constructed from marine grade aluminium and polycarbonate. The end user must ensure that these materials are suitable for the atmosphere the Clarius EP Plus unit will be installed in.
5. The temperature rise on the incoming mains cable is 61oC above the ambient conditions. Select suitable cable and ATEX/IECEX cable glands. For advice on suitable glands and cables, please contact GJD. All unused entries must have a suitable approved stopper plug fitted.



2. INSTALLATION

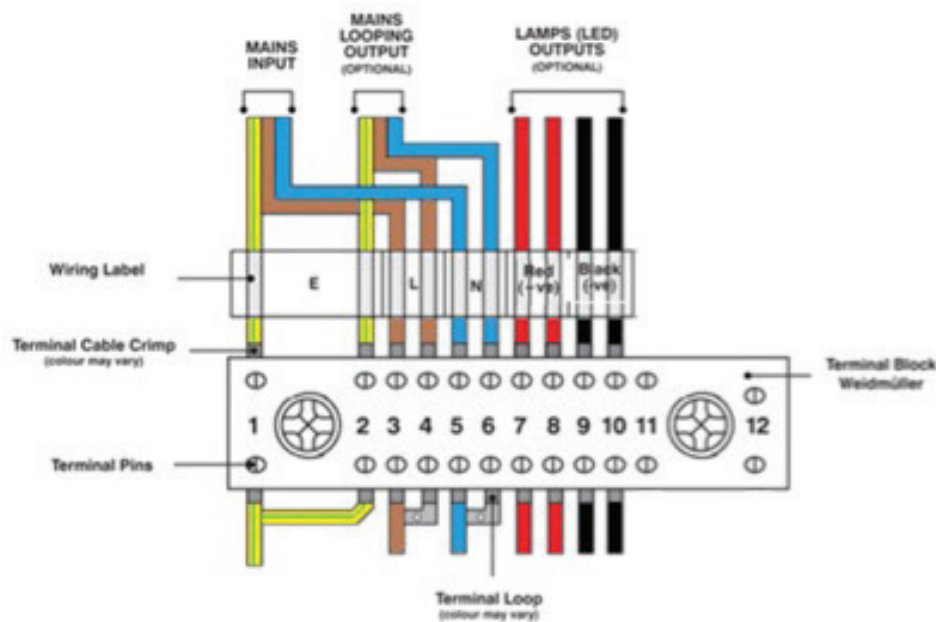
MOUNTING Clarius EP Plus UNIT

1. To meet the requirements of certification a MINIMUM of two fixing points must be used. The fixing points must be suitable for the conditions of use. The drawing below shows horizontal mount, single unit. For multiple mounting brackets and other mounting options please contact GJD.



2. The unit may have been ordered and supplied with an integrated photocell. Care should be taken when positioning the unit to ensure the sensor is not shielded, is not pointing directly at another light source and is monitoring the general, prevailing light conditions.
3. The mounting bracket for the Clarius EP Plus floodlight is packed separately in the carton. The bolts in the side of the housing shall be removed and used to secure the bracket to the Clarius EP Plus housing. It is very important that the red fibre washers are fitted between the Clarius EP Plus housing and the mounting bracket. The unit must be aligned first before securing the bracket. The unit can be mounted horizontally or vertically allowing the unit to point up/down or left/right, 2 additional holes allow the bracket/fasteners to be moved to suit mounting application. An external eye bolt is supplied to allow safety chains/suspension cords to be fitted if required.

POWER CONNECTIONS



4. Wire the Mains cable into the terminal block. Provision has been made for this and identified as the E (Earth), L (Live) and N (Neutral) terminals. There are two pairs of contacts for each of these to facilitate a mains cable that can be looped in and out of the unit.
5. The installer should earth the unit separately.
6. Connect wires to mains supply; Blue=neutral: Brown=Live: Green/Yellow=Earth
7. Isolate the unit before opening.

ADDITIONAL IMPORTANT INFORMATION

Note: Torque = Newton Meter (Nm)

8. All Clarius EP Plus units have terminal blocks suitable for 4mm² live, neutral and earth.
9. To maintain an IP rating of 66/67 All M6 socket head cap bolts fixing the polycarbonate lid to the enclosure shall be tightened down to 2.5 Nm.
10. When installing the unit the special conditions for safe use should be adhered to –
 - i. Except for internal wiring, not more than one single or multiple strand lead shall be connected into either side of any terminal unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated crimped boot lace ferrule.
 - ii. Leads connected to the terminals shall be insulated for the appropriate voltage and this insulation shall extend to within 1 mm of the metal of the terminal throat.
 - iii. When terminals in accordance with certificate Sira 01 ATEX3247U are used, all terminal screws, used and unused, shall be tightened down to between 0.5 Nm and 0.7 Nm.
 - iv. When terminals in accordance with certificate Sira 01 ATEX3249U are used, all terminal screws, used and unused, shall be tightened down to between 1.2 Nm and 2 Nm.
 - v. When terminals in accordance with certificates Sira 01 ATEX3247U and Sira 01 ATEX3249U are used, they shall only be installed and wired with cable within a temperature range of -10°C to +80°C.
 - vi. When cross-connecting combs are used on terminals to certificates Sira 01 ATEX3247U and Sira 01 ATEX3249U, the relevant conditions certification associated with those certificates shall be applied.
 - vii. Cable entry holes shall be fitted with either an appropriately certified cable gland or appropriately certified blanking element. These shall provide and maintain a minimum enclosure ingress protection of IP66 or IP67 as appropriate.
 - viii. If more than 8 individual LED's are not illuminated the LED assembly must be replaced.
 - ix. When the optional fuse is not fitted, the supply circuit must be protected by a fuse capable of withstanding a prospective short circuit current of 1500A

3. MAINTENANCE

1. Isolate the Clarius EP Plus unit from the mains supply and allow it to cool before carrying out any maintenance work.
2. In the unlikely event of the failure of a string of LED's (6 or 8), the assembly must be replaced. Contact GJD for immediate assistance and advice.
3. It is essential that all Clarius EP Plus units are maintained in accordance with the requirements of the EN60079-17 standard: Electrical apparatus for explosive gas atmospheres – other than mines.
4. **IMPORTANT!** No modifications are permitted to the unit. All spare parts must be purchased from the manufacturer or authorized distributor. Any unauthorized modifications or spare parts may make the apparatus dangerous and invalidate certification.
5. **ELECTROSTATIC CHARGING HAZARD** - 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. Strong cleaning solvents could cause damage to plastic components.
6. Disposal of packaging, Clarius EP Plus units and old LED assemblies should be carried out in accordance with national regulations.

4. TECHNICAL SPECIFICATION

CERTIFICATION

II 2 G D Ex emb IIC T4 Gb
Ex t IIIC T103°C Db IP66/67
Ta = -20°C to +50°C

SIRA09ATEX5159X
IECEX SIR09.0064X
ABS 11-LD801943-PDA

Clarius EP Plus SPECIFICATION

Input Voltage	24V AC/DC or 100-240V AC
Consumption	60W max
Power Factor	>0.95 or better
Mains Frequency	50/60Hz
IP Rating	66/67
Single Unit Weight	6Kg per module
Dimensions	250 135 x 315mm
ATEX and IECEx Rating	Zone 1 gas and dust hazardous environments

Ordering codes Clarius EP Plus Floodlight

Infra Red

MODEL NUMBER	WAVELENGTH	ANGLE	DISTANCE		FOV	
IEP-810	850nm	10	150m	492ft	26m	85ft
IEP-830	850nm	30	80m	262ft	42m	137ft
IEP-860	850nm	60	56m	184ft	64m	210ft
IEP-810-PC	850nm	10	150m	492ft	26m	85ft
IEP-830-PC	850nm	30	80m	262ft	42m	137ft
IEP-860-PC	850nm	60	56m	184ft	64m	210ft

White Light

MODEL NUMBER	ANGLE	DISTANCE		FOV	
VEP-CW10	10	120m	394ft	21m	69ft
VEP-CW30	30	65m	262ft	34m	111ft
VEP-CW60	60	45m	184ft	52m	170ft
VEP-CW10-PC	10	120m	394ft	21m	69ft
VEP-CW30-PC	30	65m	262ft	34m	111ft
VEP-CW60-PC	60	45m	184ft	52m	170ft

Please contact GJD for alternative mounting options, voltages, colour of LEDs etc.
Multiple units are also available.

5. TROUBLE SHOOTING

1. Ensure the two LED boards are correctly wired to terminal block.
Red to Red: Black to Black
2. Ensure Mains input is correctly connected.
Earth to Yellow/Green: Live to Brown: Neutral to Blue
3. Ensure Mains Input is turned on at the source.

