

# LinkEx<sup>™</sup> WF-250XL LED Floodlite Features

- Ideal for task lighting and work • activities in a hazardous area
- ATEX and IECEx approved for Zone 1 and 21 explosive gas and dust atmospheres
- Compact and lightweight design • for ease of portability
- High power 'fitted for life' LED • light source
- High quality, even, ultra-wide • angle LED light, reduces shadows and enhances visibility
- Medium angle flood beam •
- Safe/Optimal Voltage Indication "SOVI" to ensure safe certified operation
- ATEX/IECEx approved floodlite protection accessories available
- Will fit through Ø410mm access hole when used in stand or Ø240mm when removed from stand



## WOLF SAFETY LAMP COMPANY

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Link**Ex** LED





## Wolf LinkEx™ WF-250XL LED Floodlite

Operation and Maintenance Instructions Please Retain - Read Before Use

#### EU Declaration of Conformity

The Wolf WF-250XL LED Floodlite meets all relevant provisions of the 2014/34/EU Explosive Atmospheres (ATEX Equipment) Directive by virtue of the issued EU type examination certificate, demonstrating compliance with all relevant harmonised standards and essential health and safety requirements. The Wolf WF-250XL LED Floodlite is a high performance lightweight portable floodlite, constructed from marine grade aluminium with a powder coated finish and toughened glass lens. The floodlite is Group II, Category 2 equipment for use in zone 1, 2, 21 and 22 potentially explosive gases, vapours, mists and dusts where the T4 temperature class/118°C maximum surface temperature permits.

#### Certification/Approval Code:

## **C**€<sub>0598</sub> ⟨Ex⟩<sub>II 2GD</sub>

Ex eb mb op is IIC T4 Gb Ex tb op is IIIC T118°C Db Ta = -40°C to +55°C or Ta = -40°C to +40°C when the WF-462 optional Protection Cover is fitted

EU Type examination certificate: CML 18ATEX3372X Notified Body: SGS FIMKO 0Y, PO Box 30 (Särkiniementie 3), 00211, Helsinki, Finland. Notified Body Number: 0598

Harmonised standards applied:- EN60079-0:2018, EN60079-7:2015, EN60079-18:2015, EN60079-28:2015, EN60079-31:2014.

Ingress protection level IP66 & IP67 to EN60529:1992. Wolf WF-250XL LED Floodlites are manufactured in accordance with the 2014/30/EU EMC Directive to the following standards:-EN 55015:2013+A1 2015, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 61547:2009.



Alex Jackson – Managing Director, Wolf Safety Lamp Company Ltd.

#### IECEx Scheme Certification

Certificate number: **IECEx CML 18.0198X** Certification/Approval Code: Ex eb mb op is IIC T4 66 Ex tb op is IIIC T118°C Db Ta = -40°C to +55°C or

Ta = -40°C to +40°C when the WF-462 optional Protection Cover is fitted.

Standards applied: IEC60079-0:2017, IEC60079-7:2015, IEC60079-18:2014, IEC60079-28:2015 & IEC60079-31:2013.

#### IMPORTANT: SPECIAL CONDITIONS OF USE (X)

The enclosure's coated surfaces are non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user shall ensure that the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on non-conductive surfaces. Additionally, the equipment shall only be cleaned with a damp cloth.

## EQUIPMENT USE

1. Check the rating label to ensure the Floodlite is suitable for the supply provided, ambient temperature present and the environmental conditions.

2. It is the user's responsibility to ensure there is no potential difference between the earth supply to a Floodlite unit and the local earth in the work area. Where this is not possible the equipment should be securely earth bonded to metalwork in the immediate vicinity of where the Floodlite is being used. A flexible cable is recommended (6mm² minimum, no more than two metres long), connected to the earth grounding point on the Floodlite enclosure. Floodlites must be de-energised during connection or disconnection of the local earth bond.

 Safe/Optimal Voltage Indicator (SOVI). The Wolf WF-250XL LED Floadlite incorporates SOVI technology to highlight to the user if the product is operating outside of the certified maximum and recommended minimum voltage range.

4. The diagram below represents the SOVI function, it demonstrates that when the voltage is not within the "Safe/ Optimal Voltage" the light output will change from a constant uninterupted beam to a pulse.

If connecting a large number of floodlites check for SOVI indication on all the lamps in the string. Guidance on lamp connection and extensions can be found on the Wolf website: www.wolfsafety.com. If a lamp is pulsing, it is recommended that the lamp be switched off until it is operating at a correct voltage.

5. This product is Class 1 equipment and must be earthed. Floodlites are supplied as standard with 3 core earthed supply cables. Where the user specifically requires a 24 volt SELV Floodlite with 2 core cable (+ve and -ve) / a 2 pole plug, the Floodlite must be used with a separate connection to earth via the external earth grounding point.

 $\delta.$  All Floodlites have terminal blocks suitable for incoming cables for up to  $4mm^2$  conductor capacity.

7. Ex "e" certified Increased Safety terminal blocks must have all terminals fully tightened down even if a conductor is not fitted. On all terminal blocks, tighten screws to 0.5-0.7Nm.

 ATEX/IECEx approved cable glands must be used and be suitable for the type of cable used. Any unused cable entries should be blanked off with a suitable ATEX/IECEx approved stopper plug to maintain a minimum IP66/67 rating as marked on the label.

9. Floodlites, cable and accessories should be inspected prior to each use for visible signs of damage. Particular attention should be paid to gland and socket entries. Damaged lamps should be removed from the work area and repaired before being put back in service.

SOVI	LAMP OFF	SAFE OPTIMAL VOLTAGE		UNSAFE VOLTAGE
WF-250XLH WF-250XLL	< 90V < 18V	90-100V 18-19V	100-264V 19-50V	264V > 50V >
LIGHT OUTPUT	OFF	PULSE	ON	PULSE

## Wiring Schematic







Driver Input Terminal Block (90-264V Variant)

Driver Input Terminal Block (18-50V Variant) Driver Output Terminal Block

## **Terminal Connecting**







Ensure less than 1mm conductor exposed from the metal of the terminal throat

## Spare Parts

Item No.	Part No.	Spare Part Description	Quantity
1	WF-551	Painted rear casting, enclosure seal, washers and retaining bolts	1
2	WF-571	Painted front cover assembly, complete with glass, retaining brackets, seal and wiring labels	1
3	WF-553	Glass lens, seal and bracket pads	1
4	WF-586	18-50V LED driver	1
5	WF-592	90-264V LED driver	1
6	WF-558	LED panel, thermal pad and fixing screws	1
7	WF-561	6 Way - 4mm² terminal block, 2 QB links and fixing screws	1
8	WF-565	2 Way - 4mm² terminal block and fixing screw	1
9	WF-225	LED driver retention bracket	1
10	WF-559	Complete driver assembly including bracket and terminals (18-50V)	1
11	WF-569	Complete driver assembly including bracket and terminals (90-264V)	1
12	WF-284	Floodlite enclosure seal	1
13	WF-285	Floodlite lens seal	1
14	WF-276L	Internal screw and label set (18-50V)	1
15	WF-276H	Internal screw and label set [90-264V]	1
16	WF-566	Internal earth/grounding wire set	1
17	WF-568	External earth stud	1
18	WF-490	Bridle fixing kit	1
19	WF-445	Frame and bridle (No fixings included)	1
20	LL-311	Trumpet gland M20 x 1.5mm	1 (+1 LinkEx Versions)
21	WF-495	M20 stopping plug	1
22	WF-549	Certification label and bracket are specific to the individual product, contact your authorised Wolf sup	plier for replacement
23	A-103	External Eyebolt M6 x 15mm	

Contact your authorised Wolf supplier for replacement cables, plugs or link socket components.





#### PHOTOBIOLOGICAL SAFETY

Floodlites are risk group 1 - No photobiological hazard under normal behavioural limitations.

#### TECHNICAL DATA

Enclosure		Marine grade aluminium alloy with a powder coated finish.	
Lens		6mm Toughened Glass	
Light Source	Туре	18 x White High Power LEDs	
Source	Life	100,000+ hrs	
Weight		5.4kg (excluding cable)	

### ELECTRICAL DATA

Model	WF-250XLL	WF-250XLH	
Voltage	18-50V AC/DC	90-264V AC only	
Freq Hz	50/60	50/60	
Total Circuit Power	≤ 28 Watts	≤ 31 Watts	
VA (AC)	42VA at 24V AC 48VA at 42V AC 52VA at 48V AC	N/A	

#### MAINTENANCE



1. IMPORTANT. Any maintenance work should be carried out in the safe area by suitably qualified and experienced technicians only.

2. Isolate the Floodlite from the mains supply and allow to cool before carrying out any maintenance work.

3. IMPORTANT. No modifications are permitted to the Floodlites, all spare parts must be purchased from the manufacturer, unauthorized modifications or spare parts will invalidate certification.

4. Portable Appliance testing must be carried out to IEC, EN standards to the correct rating i.e. 250V DC for 18-50V versions and 500V DC for 90-264VAC versions. Live and neutral cables must be shorted together and the voltage applied between earth and this connection.

#### FRONT COVER

Remove the front cover by unscrewing the four socket head retaining bolts. Release the Earth connecting wire by releasing the locking spade connection in the floodlite by depressing the tab on the connector and pulling away. See fig. 8.

Perform repairs/maintenance as necessary. To reassemble follow the above points in reverse order. Take care not to trap/ crush wires and ensure the seal is in good condition. Ensure correct torque settings are followed, as specified in Fig. 7.

\*The Certificate label and serial number are fitted to the front cover, therefore do not interchange the front covers with other WF-250XL Floodlites. See internal body label for serial number reference.

#### CHANGING CABLE OR SOCKET

Disconnect the input cable, release cable from input gland. Check the gland seal is in good condition, fit the new part(s) and re-assemble the product by following the stated procedure in reverse order. For wiring and termination details, see Fig. 1-6. Specified torgue settings must be followed.

If any change is made to cable, glands, plugs or sockets the manufacturers instructions should be adhehered to, ensuring the seal between the item and the cable is reliable.

Please note sockets and plugs have no IP rating unless connected or sockets have covers closed.

#### CHANGING LED PANELS

The LED panel can be removed by unscrewing four socket head screws and the wiring terminations. Discard the old panel and replace with a new one by following the removal procedure in reverse. A new thermal pad must be fitted on replacement under the LED panel as shown in Fig. 7. For wiring and termination details, see Fig. 1-6. Specified torque settings must be followed.

#### CHANGING LED DRIVERS

Unscrew the internal & external wiring terminations from the six & two way terminal blocks and remove the driver retention bracket by unscrewing the two bolts. To reassemble follow the above points in reverse order. For wiring and termination details, see Fig. 1-6. Specified torque settings must be followed.

#### CHANGING GLASS LENS

Replace the glass by unscrewing the six socket head screws securing the three retaining plates. Fit the new glass making sure strip gasket material is fitted between the glass and each retention plate. See Fig. 14. Specified torque settings must be followed.

#### FAULT FINDING



If a WF-250XL Floodlite fails to function, remove the product from service into a non hazardous area. Remove the cover and apply power to the Floodlite. Check the input voltage at the terminals is present and is the correct rating for the Floodlite. If the voltage is correct check the output voltage to the LED panels, this should be 19V DC+/-1V. If this voltage is not present then the driver is faulty, if it is then the LED panel is faulty. Replace as necessary.

#### **DISPOSAL OF WASTE MATERIAL**

Disposal of packaging, LinkEx LED products, old LED panels and drivers should be carried out in accordance with national regulations, (WEEE).

The Wolf Safety Lamp Co. Ltd has a policy of continuous product improvement. Changes in design details may be made without prior notice. Prices and design are subject to alteration without notice. All products sold are subject to our conditions of sale. A copy of these instructions with any relevant revisions can be found at www.wolfsafety.com.

