

DLZ69000

Ex Proof IR Illuminator



Installation and Operations Manual

Model Number: DLZ69000

Description: Explosion Proof

Infrared Illuminator

Table of Contents DLZ69000	Page
Description	3
Features	3
Preface	4
1. Overview of Usage	5
1.1 Inspection of Received Equipment	5
1.2 Outline Diagram	5
1.3 Operating Environment	6
1.4 Storage	6
1.4.1 Short Term Storage	6
1.4.2 Long Term Storage	7
2. Warnings	7
2.1 Performance Specifications	8
2.2 Compliance Grade	8
2.3 Electrical Safety	8
2.4 Outline Dimensions	8
3. Connections	9
3.1 Wiring	9
3.2 Pinouts	9
3.3 Installation Requirements	10
3.4 Installation Details	10
3.4.1 Ground Terminal	10
3.4.2 Mounting Bracket	
4. Operations	11
4.1 Inspection and Preparation	11
4.2 Operating IR Unit	11
5. Maintenance and Parts Replacements	11
5.1 Routine Inspection	12
5.2 Inspection Table	12
5.3 Life Span	12
5.4 Life Cycle Table	12
6. Warranty	13

DESCRIPTION

The DLZ69000 Series are IP67 rated, Stainless Steel 316, Explosion Proof rugged grade, corrosion resistant Indoor/Outdoor, LED and Laser based IR Illuminators. Units feature high power lasers to illuminate up to 750 meters and may be mounted on a common bracket with the DLZ6700 explosion proof housings and optional, built-in camera. The Series DLZ69000 explosion proof IR Illuminators are designed to meet the most demanding commercial and industrial, marine environment, video surveillance installations.


FEATURES

- * Explosion Proof Indoor/Outdoor Housing
- * Stainless Steel 316L Material
- * LED and Laser based IR Sources
- * Available with up to 750m distance
- * 12VDC, 24VAC, 85-265VAC input voltages
- * Certified for Exd II CT6 (H2)
- * Regulatory Compliance with IP67



PREFACE

Thank you for purchasing Dante DLZ69000 ex-proof infrared lamp. The product meets the standard of GB3836.1~3-2000 for operating in explosive gas environment, GB12476.1-2000. The first part of electrical equipment used in dust-ignition environment: electrical equipment of using shell and restricting the surface temperature. The product provides infrared night light for ex-proof camera series in hazardous environments. Please read and understand all the contents before using the product so that User may use it correctly. It will improve the normal operation, reduce breakdowns and prolong the life of unit.

Please take care of the instruction manual, together with the infrared lamp after using the manual so that it will be available when needed.

	ATTENTION
<ul style="list-style-type: none">◆ Please read and understand all the contents so that User may install, connect circuit and properly operate and maintain unit. ◆ The instruction manual should be kept by the end-user. ◆ The instruction manual should be kept until the infrared lamp is no longer in use.	

Please read the manual and other associated documents before installing and operating the product. Master the related knowledge, security issues and the attention to the matter before the use. The manual has two levels of “warnings and attention”.

 WARNINGS	Erroneous installation may cause serious injury.
 WARNINGS	The product may also lead to damage; lack of attention in the matter may also lead to serious consequences.

1. Overview of Usage



WARNINGS

- The infrared lamp may be used in environments under standard Exd \square CT₆ (except acetylene) and DIP A21 TA T6. May not be used in incorrect place, or else it may cause accidents.
- Must set up safety devices, in case of the product will cause a major accident or loss.

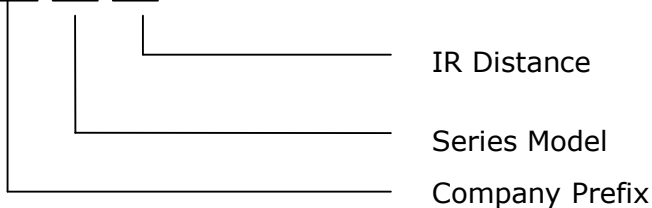
1-1 Inspection of Received Equipment

When received the equipment, please inspect the following parts. If there are some problems about the products or out of line with the specification user ordered, please contact the re-seller or Distributor from where it was ordered.

- Check the brand sign on the infrared lamp, make sure the specification.

Model: DLZ69000 infrared lamp

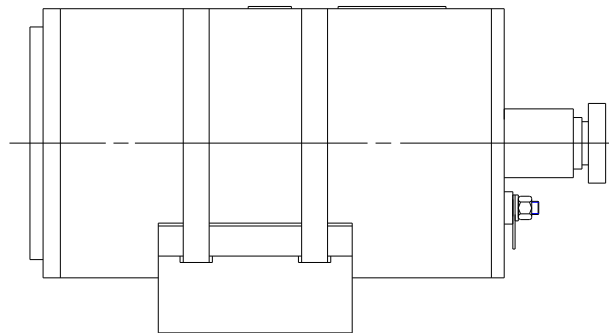
DLZ 69 000



- Inspect the appearance; check if there is damage in transportation, such as the shell damage, glass damage, and parts damage.
- Instruction manual is included with packing list.
- Original Product Certification is available on request

1.2 Outline Diagram

DLZ69000 Ex-proof infrared lamp



1.3 Operating Environment

Item	Standard
Pressure	80Kpa~108Kpa
Ambient temperature	-20℃~+60℃
Relative humidity	Less than 95% (+25℃)
Environment	Suitable for corrosive, explosive gas-oil and areas of dust-ignition. Keep away from water and steam. Keep away from areas that are prone to drastic changes in temperature which may also result in condensation and freezing
Vibration	Less than 20meter/sec ² (2g)

1.4 Storage

1.4.1 Short Term Storage

Form 1-4-1 Storage environment

Item	Standard	
Ambient temperature	-25~+50℃	No drastic changes place in temperature that may result in condensation and freezing
Storage temperature	-25~+65℃	
Relative humidity	5~95%	
environment	Keep away from water and steam.	

Note 1: preservation temperature means the short-time temperature tolerance in transportation.

Note 2: Even though the humidity meets the standard's demands, the drastic changes in temperature will result in condensation and freezing. Avoid such areas.

- Do not install directly on platform; use with specified IR bracket.
- If the ambient environment is inappropriate, pack it with the plastic films and pack for storage.
- If the humidity is very high, pack in silica gel, etc.


1.4.2 Long Term Storage


The storage of infrared lamps which will not be used for a long time, require different storage methods for different environments.

Generally, store as per the following descriptions:

- When the storage is more than 3 months, the ambient temperature should less than 30°C. This is a requirement when storing the IR lamp with capacitors under no power. Its properties are easy to deteriorate.
- In order to prevent the effects of humidity, seals should be tight. Before sealing, add dry silica gel packets and ensure the relative temperature is less than 70% inside.
- Do not keep in the humid areas. Take unit apart and store as per above described suitable environment.

2. WARNINGS

 WARNINGS
<ul style="list-style-type: none">● Install the cables correctly in the cable outlets in accordance with the requirements of the manual. At the same time tighten the nut pressed, or may cause damage after powering unit in explosive environment.● Must tighten all of the junction screws with no special tools. After fastening, may not be opened, or may result in explosion after powering of unit.

 WARNINGS
<ul style="list-style-type: none">● Humid environment exposure to the infrared light should be avoided to reduce potential rusting of structural parts.● Scrap metals may not fall on the equipment, or cause a short circuit.● Fasten the infrared lamp on the specialized bracket, must be solid and reliable. It will reduce chance of unit falling and causing more serious damage or accidents.● Please do not install and operate Infrared light with damaged or defective parts.

2.1 Performance Specifications

Electrical Parameters:

Input Voltage:	12VDC, 24VAC, 85-265VAC
Power Consumption:	7 Watts
IR Wavelength LED:	850nm ~ 940nm
IR Wavelength Laser:	810nm
Auto Trigger:	On/Off
Viewing Angle:	60° (LED); 3° (Laser)
Distance:	100m (LED); 750m (Laser)

Mechanical Parameters

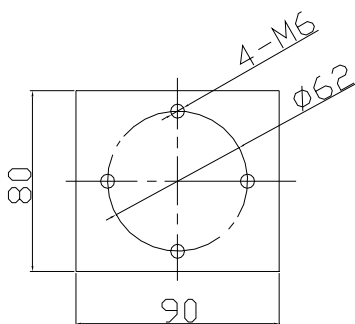
Outside Dimension:	11.5" (295mm) L 5.3" (135mm) dia. 9.3" (235mm) H
Material:	Stainless Steel 316L Grade
Glass:	3.10" (79mm) dia.
Glass Thickness:	12mm
Weight:	17 lbs (7Kg)

2.2 Grade: IP67

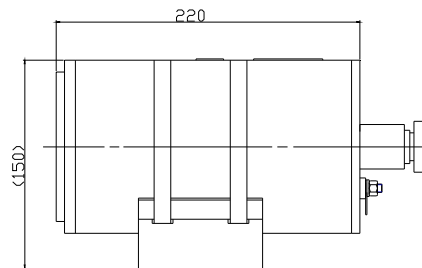
2.3 Electrical Safety

The resistance between the terminal of power lines and insulation of the shell must not be less than 100MΩ.

2.4 Outline Dimensions





Picture 2-4-1b



Picture 2-4-1a

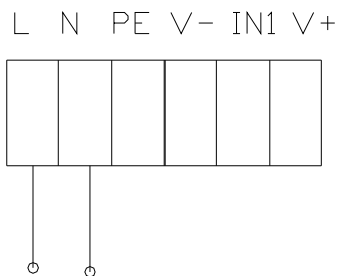
3. Connections

 WARNINGS
<ul style="list-style-type: none">● Unit must be grounded safely, or may cause possible electric shock and accidental fire.● Wiring work must be carried out by professionals, or accidental electric shock may occur.● Before installation and wiring, it is important to cut off external power before operating unit, or cause electric shock and potential injury accidents.

 WARNINGS
<ul style="list-style-type: none">● Must ensure that the power supply voltage and current of the infrared light are within the specification nominal values of explosion-proof infrared light, or may cause damage to equipment.● External wiring may cause interference. Please check if the infrared light has any malfunction. Otherwise, accidents may occur.

3.1 Wiring

Open the back with tools, the terminal line connector will be exposed. See the following picture.



3.2 Pinouts


L.N is the user input voltage lines of connection: 12VDC, 24VAC or 85~265VAC 50/60Hz

PE is the ground terminal connection

V-IN1, V+ is for factory inside connection test points; customers may not use.

3.3 Installation Requirement

1. Make sure there is power connection to the inside connection terminal of infrared lamp.
2. Make sure there is good ground connection to ground port; it may prevent electric shock or fire accidents.
3. In order to ensure high reliability of connection, user must install leading wires with press-fit terminals. After connecting, check the following points:
 - a. all the connections are right
 - b. if there is a loss of connection
 - c. if there is any short-circuit between any of the terminals and the connectors
4. Switch on the power and check operation. To change the connection, first cut off the power. In addition, there is the residual voltage in the system, it will cause electric spark when there is a short circuit. So it is better to operate unit after the power has been off for a while.

 WARNINGS	<ul style="list-style-type: none">● must connect the ground wire, or may cause electric shock or fire accidents● power distribution operations should be carried out only by professionals● make sure the power is off before the operation, otherwise electric shock or accident may occur
--	---

3.4 Installation Details

Connect the wires, tighten up with cable nut.

3.4.1 Ground terminal

The infrared lamp should connect ground well. In order to avoid the electric shock and the fire accidents, the metal shell and the framework of electronic equipments should in accordance with the national electronic orders. The connection ground wire should be rough and short.


3.4.2 Mounting Bracket

Fasten the whole infrared lamp on the specialized bracket; connection must be solid and reliable.



DLZ6700-65A Double Mounting Bracket for Housing and IR Lamp


4. Operations

 WARNINGS	Note: the surrounding environment may interfere with the operation of the infrared lamp.
---	--

4.1 Inspection and Preparation

Inspect the following items before operating

- Check the connection wires whether they are properly installed. Ensure that output terminal is not connected to power and make sure unit is well grounded.
- Make sure all the terminals and the exposure of live parts have no short circuit or short circuit to ground.
- Make sure the terminals and the screws are fastened.
- Make sure the switches are off before the power on and that no unusual conditions occur when the power is turned on.


 WARNINGS	<ul style="list-style-type: none">● Turn on the power when the lid is on. Do not remove lid back up when the power on.● Wet hand may not operate the switch to avoid the electric shock.
--	---

4.2 Operating IR Unit

Apply the correct power supply to unit. Three versions are available:

12VDC, 24VAC and 85~265VAC 50/60Hz

5. Maintenance and Parts Replacement

 WARNINGS
<ul style="list-style-type: none">● The infrared light is a product specified in video surveillance applications. There are signs of "No charged-off Cap" on the shell, that is, in order to open the unit, power must be cut off or accidents may occur.● Non qualified personnel may not make do maintenance inspection and change the parts (take off the watch, ring and other metals, use the insulation tool). .● Maintenance of infrared light, user must pay attention to the protection of explosion-proof surface. Otherwise surface damage may affect explosion-proof performance.

5.1 Routine Inspection

In order to improve longer life and reliable operation, routine maintenance and regular inspection is necessary. Note the following points:

- The operating performance meets the standard
- The surrounding environment meets the standard
- There is no noise and vibration inside of infrared lamp.
- The infrared lamp does not overheat

Cut off the power and open the back lid for regular inspection.

5.2 Inspection Table

	Inspected items	Methods
Ambient environment	1. User must check the relative humidity, temperature and vibration 2. there are no hazardous products in surroundings	1. Use visual and measuring equipment 2. Based on the visual
Voltage	User must check if the main circuit, control circuit voltage are normal	Use visual and measuring equipment
Conductor wires	1. Check for smell of overheating and cracks in the insulation 2. Check if the conductors have changed color or are distorted as a result of overheating	1. Tighten cables 2. Based on the visual
Terminal row	Check if there is damage	Based on the visual

Note: The insulation must be tested on a regular basis to prolong the life of the unit.

5.3 Life Span

Different parts have the different usage life span. Additionally, useful life of the parts changes with the ambient temperature and the installed conditions.

5.4 Life Span Table

Item	Typical Life Cycle	Replacement
Connection terminal	—	Decided by inspection
Heater parts	—	Decided by inspection
The head of infrared lamp	3 years	Decided by inspection

6. Warranty

The product was made under a sound quality management system. The following are instructions about the guarantee and the after-sales service, in case of the breakdown.

(1) Product problems

If the product has been damaged or exhibits operation problems, first read the instruction manual and check as the manual. Contact the Distributor from whom it was purchased and provide the following information:

- a. Infrared lamp model
- b. Invoice Number or
- c. Purchase Order Number
- d. Describe general condition or symptoms
- e. Upon receipt of RMA, ship Freight and Duty prepaid

(2) Guarantee period

The unit is has a one year warranty from Invoice Date. If there are the following conditions, even during the warranty period, user must pay for repairs:

1. Incorrect use or the damage caused by self-repair
2. Exceeds the installed regular standards requirements
3. Damage from fall after the purchasing or the damage caused in transportation
4. Damage due to earthquake, fire, wind and water disaster, abnormal voltage or other natural disasters

For additional instructions, please read Dante Security Warranty available on our web site www.dantesecurity.net