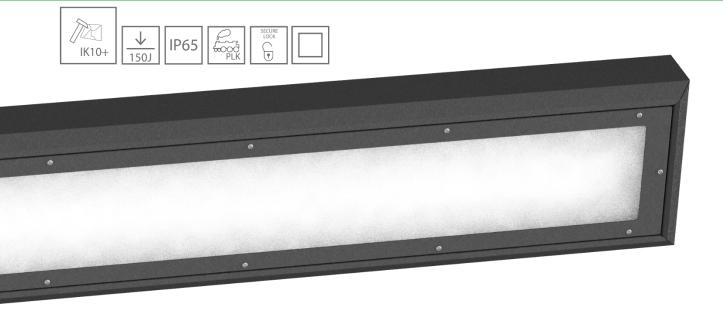


INSTALLATION AND MAINTENANCE MANUAL FOR LIGHT FITTING

INV320LED-..-SF



Carefully read the instructions before mounting the light fitting.



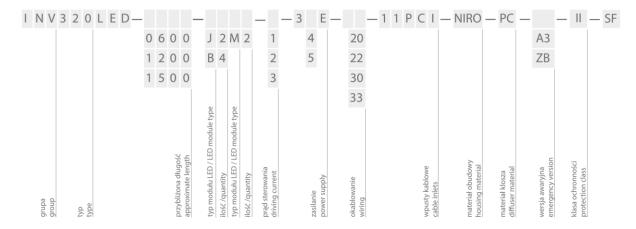
TABLE OF CONTENTS

1.	GENERAL INFORMATION	3
2.	TECHNICAL INFORMATION	
3.	PHOTOMETRICAL DATA	. 4
4.	CONSTRUCTION DESCRIPTION	. 4
5.	PRELIMINARIES	. 5
6.	LIGHT FITTING MOUNTING	. 5
7.	ELECTRICAL CONNECTION	
8.	CONDITIONS OF SAFETY USE	. 6
9.	LIGHT FITTING MAINTENANCE AND SERVICING	. 6
10.	PARTS EXCHANGE	. 7
11.	REPAIRING	. 7
12.	LAMPS EXCHANGE	. 7
13.	TRANSPORT AND CONDITIONS OF STORAGE	. 7
14.	DISPOSAL OF WASTE EQUIPMENT	. 7
15.	WARRANTY	8



1. GENERAL INFORMATION

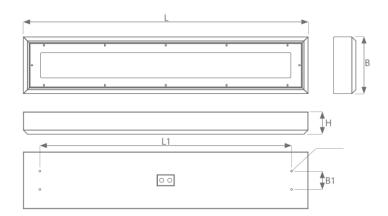
Dustproof and waterproof light fitting for installation indoors and outdoors. Designed for use in tunnels, underpasses and any areas exposed to acts of vandalism.



2. TECHNICAL INFORMATION

Туре	Power	Electrical unit	IP	Protection class	Power factor	Ambient temp.	
INV320LED-0600-J2-1SF	18,8 W	230V 0,50,60Hz					
INV320LED-0600-J2-3SF	27,2 W						
INV320LED-0600-B2-1SF	36,6 W						
INV320LED-0600-B2-2SF	42,1 W						
INV320LED-1200-J4-1SF	36,6 W			II lub I (optional)	≥0,95	-30 do +45°C	
INV320LED-1200-J4-2SF	42,1 W		65				
INV320LED-1200-J4-3SF	53,5 W						
INV320LED-1200-B4-1SF	72,1 W						
INV320LED-1200-B4-2SF	83,2 W						
INV320LED-1500-J4M2-1SF	45,4 W						
INV320LED-1500-J4M2-3SF	72,7 W						





TYPE	L	L1	В	B1	Н
INV320LED-0600SF	760	594			
INV320LED-1200SF	1370	1240	280	90	110
INV320LED-1500SF	1670	1240			

3. PHOTOMETRICAL DATA

Туре	Luminous flux	Efficiency	Colour temperature	CRI	Lifetime
INV320LED-0600-J2-1SF	2113 lm	112 lm/W			
INV320LED-0600-J2-3SF	2857 lm	105 lm/W			
INV320LED-0600-B2-1SF	4171 lm	114 lm/W			
INV320LED-0600-B2-2SF	4665 lm	111 lm/W			
INV320LED-1200-J4-1SF	4420 lm	121 lm/W			
INV320LED-1200-J4-2SF	4990 lm	129 lm/W	4000K	>80	>50000 h
INV320LED-1200-J4-3SF	5921 lm	111 lm/W			
INV320LED-1200-B4-1SF	9037 lm	125 lm/W			
INV320LED-1200-B4-2SF	9853 lm	118 lm/W			
INV320LED-1500-J4M2-1SF	5040 lm	111 lm/W			
INV320LED-1500-J4M2-3SF	7237 lm	129 lm/W			

Lifetime of a LED modules: L₇₀B₁₀

4. CONSTRUCTION DESCRIPTION

Housing is made of stainless steel. Diffuser is made of polycarbonate. Mounting tray is made of powder painted galvanized steel.

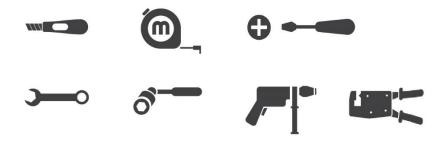


5. PRELIMINARIES

CONDITIONS OF SAFETY RULES

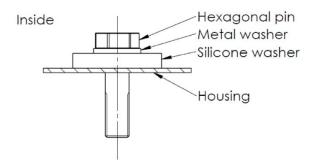
- · Carefully read all the information included in the manual before mounting the light fitting
- General safety must be applied.
- Failure to comply with rules of the installation and use can lead to personal injury or property loses. Company ATM Lighting sp. z o.o. takes no responsibility in such cases.
- Failure to comply with rules included in manual results with void of the manufacturer warranty.

NECESSARY TOOLS



6. LIGHT FITTING MOUNTING

The light fitting is designed for mounting on a ceiling. 4 silicone washers and 4 metal washers are included. They should be used to installation, as in the figure below. The manufacturer does not provide hexagonal pins. The light fitting should be fixed with pins with a Ø8mm minimum diameter. Silicone and metal washers should be installed on unthreaded surface.



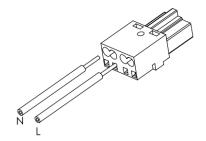
7. ELECTRICAL CONNECTION

To connect power supply:

- enter the power cable to the housing through the cable,
- carefully unisolate the cables cores (8-10mm), and put it into the connector according to marking inside the light fitting,
- put the admission cable through the cable inlet and connect it with the socket;
- tight the power cable in the strain relief and then connect plug and socket;
- check the effectiveness of grounding (only in case of light fittings made in I protection class).



Power connection:



Remarks:

- If cable entries are made from rubber to put cable into housing it is necessary to carefully made a hole in cable gland. The diameter of the hold need to provide a tight fit of the gland membrane with power cable.
- Use one wrench to tighten the sealing nut, while using the second wrench to block gland body against rotation, otherwise damage of the sealing can be caused and therefore sealing level will be decreased.

8. CONDITIONS OF SAFETY USE

- Every light fitting has to have rating plates with rating data on it. Each light fitting must have this "Installation and maintenance manual", which must be kept by user until the end of exploitation.
- Light fittings are designed for fixed installations only.
- Using light fitting outside the designated operating temperature range is unacceptable and will decrease a lifetime of light fitting and/or damage it. It will also cause a loss of warranty.
- Each light fitting must have a warning sign: "do not open under voltage" on it.
- Admission cables must have 2-wires and diameter 6-12mm.
- Use power wires with cross section 0,5-1,8mm².
- Maximum cross current I=16A.
- The diffuser is made of polycarbonate, so it mustn't be exposed on chemical substances which
 may destroy it, especially: oil, acetone, chloride, ethyl, ether. In case of doubts with substances
 are in work place of light fitting, which can damage the product, the action of fixing should be
 taken.

9. LIGHT FITTING MAINTENANCE AND SERVICING

REMARK: during the servicing and maintenance touching of LED are prohibited, because it will decrease the lifetime of light fitting and cause the loss of manufacturer's warranty.

INSPECTION: at least once a month. Inspection is made without opening the light fitting. User must check admission cables condition (insulation damage, cracks, burns etc.). Cables must not have any acute bends. Outside parts of the light fitting must be checked. No cracks or corrosion signs may occur. Bolts used to mount light fitting should be properly tightened, washers mustn't be cracked. Cleanliness of outer surfaces and light fittings surroundings must be checked. Light fittings may not be soiled by paint or grease. Do not allow for dust (dirt) deposition on the light fitting. The readability of rating and warning plates must be checked. Abnormalities found must be fixed.



SERVICE AND MAINTENANCE: at least once a year. Service and maintenance must be made with power supply turned off. User must make inspection steps first. After opening the metal parts painting, condition of inner wiring and its mounting, insulating materials, cable glands gaskets, terminals. Abnormalities found must be fixed. Rating and warning plates must be cleaned. Surfaces of insulating materials and covers must be clean.

VERIFICATION OF TECHNICAL CONDITION: at least once for 2 years. Power supply must be switched off. Light fitting must be uninstalled. Besides all the examination from inspection, service and maintenance paragraphs electrical examination from the inspection, service and maintenance paragraphs electrical examination must be also made: light fitting current consumption, insulation examination, protective earthing condition. Special attention must be paid to insulating parts condition. No crack or burns may occur.

CLEANING: do not allow for dust (dirt) deposition on the light fitting. Cleaning must be proceeded without use of chemical. Cleaning must be proceeded with use of compressed air and soft cleaning cloth or soft brush. If necessary use water and/or neutral detergent, however without any chemicals, which can damage any part of the light fitting.

10. PARTS EXCHANGE

All of parts considered as a spare parts must be ordered at manufacturer of light fitting.

11. REPAIRING

All repairs (excluding lamps exchange) may be made only by manufacturer or authorized repair workshops.

12. LAMPS EXCHANGE

Can be performed only by personnel appropriately trained and authorized to the service of the light fitting.

13. TRANSPORT AND CONDITIONS OF STORAGE

During transportation light fittings shouldn't be exposed to precipitation or mechanical shock.

Light fittings may be storage only in sheltered warehouses, within +5°C to +35°C temperature range, and relative humidity lower than 75%. No corrosion causing vapors or gases should be present.

14. DISPOSAL OF WASTE EQUIPMENT

User must obey relevant rules and regulations about disposal of wasted equipment valid in their country.



15. WARRANTY

- It is forbidden to use damaged or malfunctioned light fitting.
- It is required to disconnect power supply from the light fitting before any maintenance work.
- All specific information can be found in document "General terms and conditions warranty ATM Lighting sp. z o.o." available at the website www.atmlighting.pl/en/

ADDRESS:

ATM Lighting sp. z o.o.
ul. Budowlanych 31 80-298 Gdańsk
tel: +48 58 347 51 07 fax: +48 58 347 51 08
office@atmlighting.pl