



INSTALLATION AND MAINTENANCE MANUAL FOR  
LUMINAIRE

INV320



Carefully read the instructions before  
mounting the luminaire.

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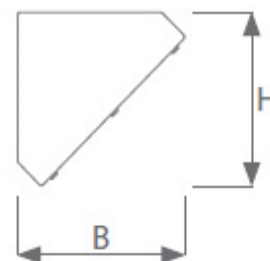
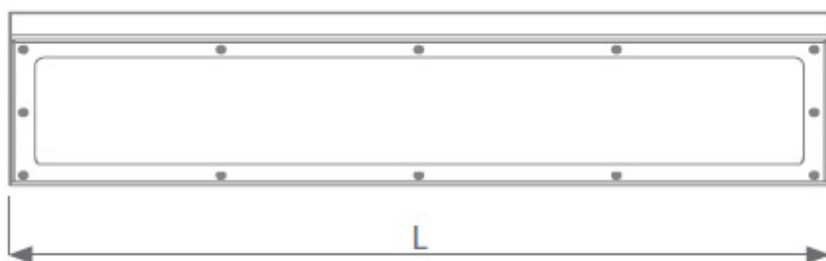
# 1. GENERAL INFORMATION

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

I N V 3 2 0			3 5 E		11 P C I	NIRO	PC	
grupa group		ilość lamp lamps quantity		okablowanie cross wiring	wpusty kablowe cable entries	material obudowy housing material	material klosza / diffuser material	wersja awaryjna emergency version
		1 18		20				A3
		2 36		22				
		58		30				
		14		33				
		24						
		28						
		35						
		49						
		54						
			napiecie zasilania / voltage					
			częstość / frequency					
			typ statecznika / ballast type					

## 2. TECHNICAL INFORMATION

Type	Lamp-holder	Lamp type	Power	Electrical unit	IP	Protection class	Power factor	Ambient temp.
INV320-114-...	G5	T5	1x14W	230V 0/50/60Hz	65	II	≥0,95	-25 do +50°C
INV320-214-...			2x14W					
INV320-118-...	G13	T8	1x18W					
INV320-218-...			2x18W					
INV320-124-...	G5	T5	1x24W					
INV320-224-...			2x24W					
INV320-128-...			1x28W					
INV320-228-...			2x28W					
INV320-135-...			1x35W					
INV320-235-...			2x35W					
INV320-136-...	G13	T8	1x36W					
INV320-236-...			2x36W					
INV320-149-...	G5	T5	1x49W					
INV320-249-...			2x49W					
INV320-154-...			1x54W					
INV320-254-...			2x54W					
INV320-158-...	G13	T8	1x58W					
INV320-258-...			2x58W					



Type	L	B	H
INV320 – 18/14/24	755	170	170
INV320 – 36/28/54	1365		
INV320 – 58/35/49/80	1665		

### 3. CONSTRUCTION DESCRIPTION

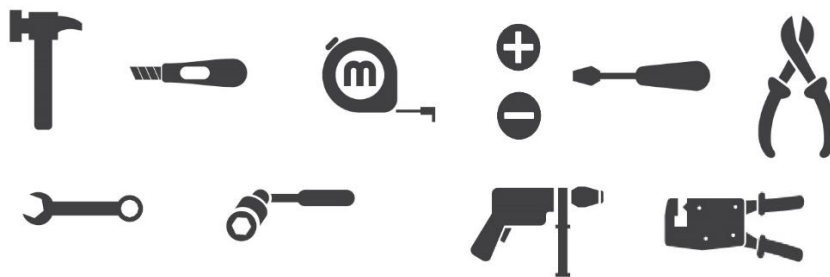
Housing is made of powder painted stainless steel. Mounting tray is made of powder painted galvanized steel. Diffuser is made of polycarbonate.

### 4. PRELIMINARIES

#### CONDITIONS OF SAFETY RULES

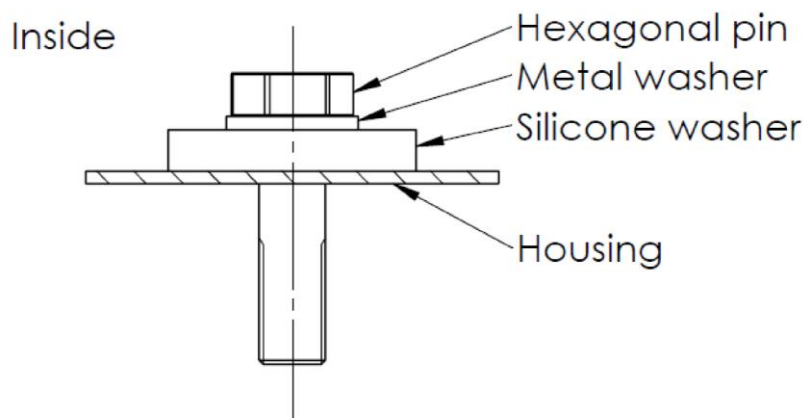
- Carefully read all the information included in the manual before mounting the luminaires
- General safety must be followed.
- Failure to comply with rules of the installation and use can lead to personal injury or property losses. ATM Lighting sp. z o.o. company takes no responsibility in such cases.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

#### NECESSARY TOOLS



### 5. LUMINAIRE MOUNTING

The luminaire 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 luminaire should be fixed with pins with a Ø8mm minimum diameter. Silicone and metal washers should be installed on unthreaded surface.

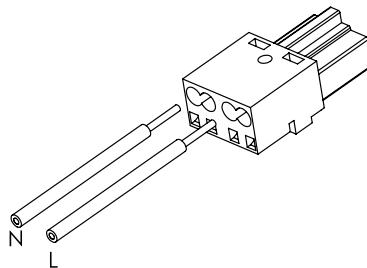


## 6. ELECTRICAL CONNECTION

To connect power supply:

- enter the power cable to the housing,
- carefully unisolate the wires (8-10mm), and put it into the connector according to a label inside the luminaire,
- 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;

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.

## 7. CONDITIONS OF SAFETY USE

- Every luminaire must have rating plates with rating data on it. Each luminaire is equipped with this „Installation and maintenance manual”, which must be kept by user until the end of exploitation.
- Luminaries are designed for fixed installations only.
- Using luminaire outside the designated operating temperature range is unacceptable and will decrease a lifetime of luminaire and/or damage it. It will also cause a loss of warranty.
- Each luminaire 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 0,5-1,8mm<sup>2</sup>.
- 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 luminaire, which can damage the product, the action of fixing should be taken.

## 8. LUMINAIRE MAINTENANCE AND SERVICING

**INSPECTION:** at least once a month. Inspection is made without opening the luminaire. User must check admission cables condition (insulation damage, cracks, burns etc.). Cables must not have any acute bends. Outside parts of the luminaire must be checked. No cracks or corrosion signs may occur. Bolts used to mount luminaire should be properly tightened, washers mustn't be cracked. Cleanliness of outer surfaces and luminaires surroundings must be checked. Luminaires may not be soiled by paint or grease. Do not allow for dust (dirt) deposition on the luminaire. 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: metal parts painting, condition of inner wiring and its mounting, insulating materials, cable glands gaskets, terminals. Lampholder and the reliability of light source mounted in it must be checked. 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. Luminaire 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: luminaire 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 luminaire. 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 luminaire.

## 9. PARTS EXCHANGE

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

## 10. REPAIRING

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

## 11. LAMPS EXCHANGE

Lamps exchange may be made only by personnel authorized to maintain explosion-proof equipment.

## 12. TRANSPORT AND CONDITIONS OF STORAGE

During transport luminaires shouldn't be exposed to precipitation or mechanical shock.

Luminaires 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.

## 13. DISPOSAL OF WASTE EQUIPMENT

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

## 14. WARRANTY

- It is forbidden to use damaged or malfunctioned luminaire.
- It is required to disconnect power supply from the luminaire 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/](http://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](mailto:office@atmlighting.pl)