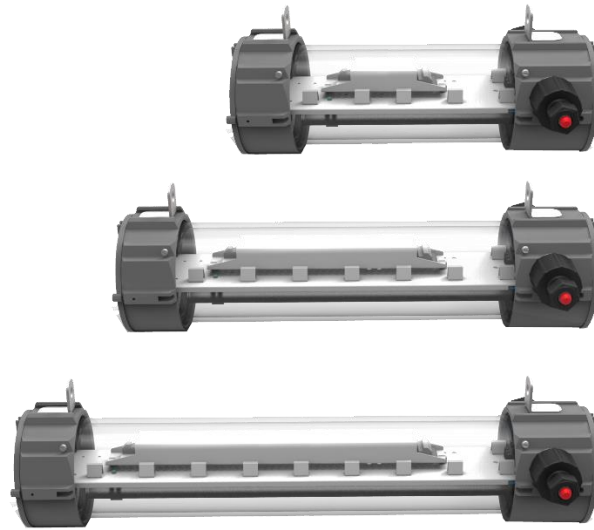




Protueksplozijski zaštićena fluorescentna svjetiljka FLX 218, FLX 236, FLX 255

Explosion proof fluorescent light fittings FLX 218, FLX 236, FLX 255



Upute za uporabu

User manual



UPOZORENJE!

Upute za uporabu sadrže osnovne informacije o proizvodu. Montaža, instaliranje, uporaba i održavanje trebaju biti izvedeni prema ovoj Uputi kako bi bio osiguran siguran rad unutar nazivnih karakteristika. Ovu Uputu nadopunjuju nacionalni Pravilnici i norme. Odgovorna osoba korisnika je dužna osigurati njihovo provođenje. Neprovođenje može umanjiti protueksplozijsku zaštitu uređaja i dovesti u opasnost ljude, imovinu i okoliš. Svako neispravno i nedozvoljeno postupanje kao i nepoštivanje odredbi ove Upute isključuje svaku odgovornost proizvođača.

Prije ugradnje/puštanja u pogon:

- Pažljivo pročitati cijelu Uputu za uporabu,
- Izvršiti odgovarajuću obuku odgovornog osoblja,
- Provjeriti da je sadržaj ove Upute u potpunosti razumljiv odgovornim osobama,
- Uvjeriti se da su primijenjeni svi zahtjevi nacionalnih Pravilnika i posebne sigurnosne mjere ukoliko postoje.

U slučaju nejasnoća:

- Kontaktirati proizvođača.

Tijekom pogona:

- Osigurati da ove Upute za uporabu i druge radne upute korisnika budu vidljivo istaknute i dostupne odgovornom osoblju cijelo vrijeme,
- Provjeravati provođenje ove Upute i svih drugih sigurnosnih uputa korisnika.



WARNING!

The user manual contains basic information about the product. Mounting, installation, usage and maintenance should be carried out under this user manual to provide and ensure safe operation within the nominal characteristics. This user manual complement national Regulation and Standards. The responsible person shall ensure their implementation. Failure off implement this user manual can reduce explosion protection and endanger people, property and the environment. Any improper and illegal actions as well as non-compliance with the provisions of this user manual excludes all responsibility by manufacturer side.

Before installation/commissioning:

- Carefully read all instructions,
- Execute proper training of responsible personnel,
- Check that the contents of these instructions is fully understandable by the responsible personnel,
- Make sure that all the requirements and national Regulations as well as all special security measures are applied.

In lack of understanding:

- Contact the manufacturer.

During operation:

- Ensure that this user manual and other work instructions are available to the responsible staff at all times,
- Check the implementation of these instructions and all other safety user's instructions

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1. NAMJENA

Protueksplozijski zaštićene fluorescentne svjetiljke FLX 218, FLX 236, FLX 255 namijenjene su za opću rasvjetu u industrijskim prostorima na mjestima s potencijalno eksplozivnom atmosferom plinova, para i prašine u zonama opasnosti 1, 2, 21, 22 sukladno normama EN 60079-10-1/-2/:2015.

2. SUKLADNOST PROIZVODA

Proizvod je sukladan Pravilniku o opremi i zaštitnim sustavima namijenjenim za uporabu u potencijalno eksplozivnim atmosferama, NN br. 33/16.

Proizvod je sukladan normama:

- EN 60079-0:2012+A11:2013,
- EN 60079-1:2014,
- EN 60079-7:2015,
- EN 60079-31:2014.

Proizvod je razvijen, proizveden i ispitan prema postojećem stanju tehnike, sukladno normama EN ISO 9001:2015, EN ISO 80079-34:2011 i EN ISO 14001:2015.



Proizvod je sukladan ATEX Direktivi 2014/34/EU.

Proizvod je sukladan LVD Direktivi 2014/35/EU.

Proizvod je sukladan RoHS Direktivi 2011/65/EU.

Proizvod je sukladan EMC Direktivi 2014/30/EU.

3. STUPANJ ZAŠTITE I TEHNIČKI PODACI

Certifikat:	CESI 06 ATEX 051	
Oznaka:		
Oznaka kategorije i protueksplozijske zaštite uređaja:		II 2G Ex db eb IIC T6 Gb ili II 2G Ex db IIC T6 Gb II 2D Ex tb IIIC T80°C Db
Temperatura okoline:	-20°C < T _a < +40°C	
Mehanička zaštita:	IP 66	
Otpornost na udar:	IK 08	
Klasa zaštite:	I (zaštitno uzemljenje)	
Nazivni napon U _n :	230 V AC, 50 Hz	
Radni napon:	110-277 V AC/DC, 50/60 Hz 24V AC/DC	
Nazivna struja:	1 A max	
Faktor snage:	λ=0,98	
Životna dob izvora :	18000 sati	
Izvor svjetlosti:	TC-L 18W – 1200lm (DELUX 18W/840, R _a =1B) TC-L 36W – 2900lm (DELUX 36W/840, R _a =1B) TC-L 55W – 4700lm (DELUX 55W/840, R _a =1B)	

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1. PURPOSE

Explosion proof fluorescent light fittings type FLX 218, FLX 236, FLX 255 is intended for general lighting in industrial areas with potentially explosive atmosphere in Zones 1, 2, 21, 22 according to EN 60079-10-1/-2/:2015.

2. PRODUCT COMPLIANCE

The product complies with the standards:

- EN 60079-0:2012+A11:2013,
- EN 60079-1:2014,
- EN 60079-7:2015,
- EN 60079-31:2014.

The product has been developed, manufactured and tested according to the existing state of technique accordance with the standards EN ISO 9001:2015, EN ISO 80079-34:2011 and EN ISO 14001:2015.



The product is in compliance with the ATEX Directive 2014/34/EU.

The product is in compliance with the LVD Directive 2014/35/EU.

The product is in compliance with the RoHS Directive 2011/65/EU.

The product is in compliance with the EMC Directive 2014/30/EU.

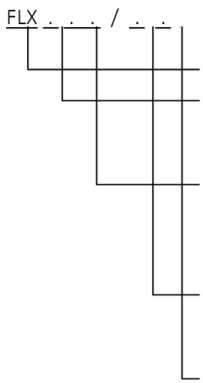
3. DEGREE OF PROTECTION AND TECHNICAL DATA

Certificate:	CESI 06 ATEX 051	
Marking:		
Category and explosion protection:		II 2G Ex db eb IIC T6 Gb or II 2G Ex db IIC T6 Gb II 2D Ex tb IIIC T80°C Db
Ambient temperature:	-20°C < T _a < +40°C	
Mechanical protection:	IP 66	
Resistance to shock:	IK 08	
Class of protection:	I (protective earthing)	
Rated voltage U _n :	230 V AC, 50 Hz	
Operating voltage:	110-277 V AC/DC, 50/60 Hz 24V AC/DC	
Rated current:	1 A max	
Power factor:	λ=0,98	
Lifetime of lighting source:	18000 hours	
Light source:	TC-L 18W – 1200lm (DELUX 18W/840, R _a =1B) TC-L 36W – 2900lm (DELUX 36W/840, R _a =1B) TC-L 55W – 4700lm (DELUX 55W/840, R _a =1B)	

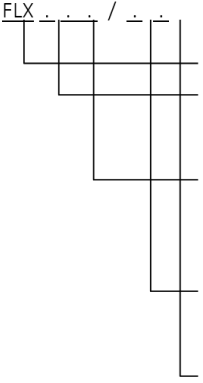
Kabelski uvodi:	2 x M20 2 x 3/4" NPT 2 x M20 s jednim Ex db čepom i jednim Ex db eb adapterom ADP 03/24 za kabele Ø7-15mm						
Prolazno ožičenje:	max. 16A sa dva Ex db eb adaptera ADP 03/24						
Maksimalan broj svjetiljaka (kom.) po jednom automatskom instalacijskom prekidaču:	<table border="1"> <tr> <th colspan="2">Automatski instalacijski prekidač</th> </tr> <tr> <td>1 p C 10A</td> <td>1 p C 16A</td> </tr> <tr> <td>8</td> <td>13</td> </tr> </table>	Automatski instalacijski prekidač		1 p C 10A	1 p C 16A	8	13
Automatski instalacijski prekidač							
1 p C 10A	1 p C 16A						
8	13						
Priključne stezaljke unutar adaptera	- L+N+PE; 2,5mm ² jednožični, višezični						
Priključne stezaljke unutar kućišta:	- L+N+PE; 2,5mm ² jednožični, višezični						
Vanjska PA/PE stezaljka:	- max. 2x6 mm ² jednožični, višezični, mnogožični						
Momenti pritezanja:	- tijela adaptera i Ex db čepa 3,5 Nm - pritisne matice uvodnice adaptera 2,5 Nm - vijka priključne stezaljke adaptera 2 Nm						
Osnovne mjere (DxŠxV)	- FLX 218 – 366 x 160 x 174 mm preko svega - FLX 236 – 555 x 160 x 174 mm preko svega - FLX 255 – 680 x 160 x 174 mm preko svega						
Masa	- FLX 218 – 4,6kg - FLX 236 – 5,8kg - FLX 255 – 8,0kg						

Cable entry:	2 x M20 2 x 3/4" NPT 2 x M20 with one Ex db plug and one Ex db eb adapter ADP 03/24 for cable Ø7-15mm						
Through wiring:	max. 16A with two Ex db eb adapter ADP 03/24						
Maximum number of lamps (pieces) per one automatic circuit breaker:	<table border="1"> <tr> <th colspan="2">Automatic circuit breaker</th> </tr> <tr> <td>1 p B 10A</td> <td>1 p B 16A</td> </tr> <tr> <td>8</td> <td>13</td> </tr> </table>	Automatic circuit breaker		1 p B 10A	1 p B 16A	8	13
Automatic circuit breaker							
1 p B 10A	1 p B 16A						
8	13						
Connection terminals into adapter	- L+N+PE; 2,5mm ² solid, stranded						
Connecting terminals into housing	- L+N+PE; 2,5mm ² solid, stranded						
External PA/PE terminals	- max. 2 x 6mm ² solid, stranded						
Tightening torque:	- housing of adapter and Ex db plug – 3,5Nm - cable glands on adapter – 2,5Nm - screw clamp in adapter 2 Nm						
Dimensions (LxWxH)	- FLX 218 – 366 x 160 x 174 mm over all - FLX 236 – 555 x 160 x 174 mm over all - FLX 255 – 680 x 160 x 174 mm over all						
Weight	- FLX 218 – 4,6kg - FLX 236 – 5,8kg - FLX 255 – 8,0kg						

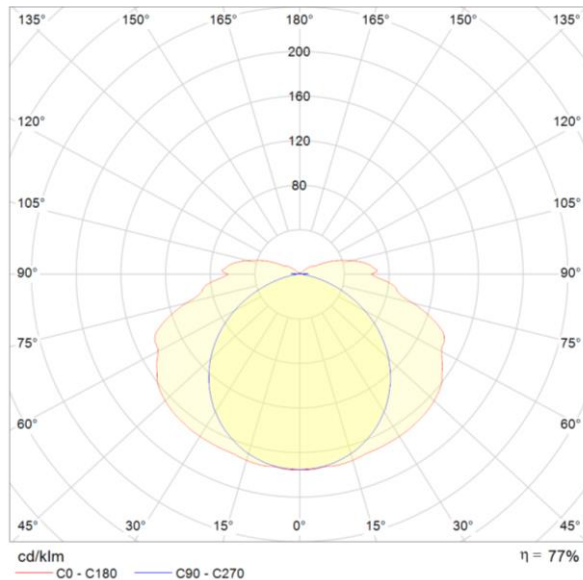
4. TIP

	<p>osnovna tipna oznaka broj fluorescentnih cijevi u svjetiljci:</p> <ul style="list-style-type: none"> - 1 - jedna cijev - 2 - dvije cijevi <p>snaga fluorescentne cijevi:</p> <ul style="list-style-type: none"> - 18 - 18 W TC-L - 36 - 36 W TC-L - 55 - 55 W TC-L <p>oznaka napona:</p> <ul style="list-style-type: none"> - 0 - 24 V AC/DC - 1 - 110 - 277 V AC/DC <p>oznaka tipa uvoda:</p> <ul style="list-style-type: none"> - 0 - Ex d kabelski uvod 2 x M20, ISO 965-1, ISO 965-3 - 1 - Ex d kabelski uvod 2 x 3/4"NPT, ANSI/ASME B1.20.1 - 2 - Ex d kabelski uvod 2 x M20, ISO 965-1, ISO 965-3 s jednim montiranim Ex d e adapterom tip ADP 23/1 i jednim Ex d čepom
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4. TYPE

	<p>basic type code number of fluorescent tubes</p> <ul style="list-style-type: none"> - 1 – one tube - 2 – two tubes <p>nominal wattage of tube</p> <ul style="list-style-type: none"> - 18 - 18 W TC-L - 36 - 36 W TC-L - 55 - 55 W TC-L <p>nominal voltage</p> <ul style="list-style-type: none"> - 0 - 24 V AC/DC - 1 - 110 - 277 V AC/DC <p>type of entries</p> <ul style="list-style-type: none"> - 0 - Ex d cable entries 2 x M20, ISO 965-1, ISO 965-3 - 1 - Ex d cable entries 2 x 3/4"NPT, ANSI/ASME B1.20.1 - 2 - Ex d cable entries 2 x M20, ISO 965-1, ISO 965-3 with one Ex d e adapter type ADP 23/1 and one plug Ex d M20
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TIP / TYPE	P [W]	IZVOR / LAMP TYPE	Un [V]	Ø [lm]	GRLO / LAMP HOLDER	MASA / WEIGHT
FLX 218	2 x 18	TC-L	110-277V AC/DC 24V AC/DC	2 x 1200	2G11	4,6 kg
FLX 236	2 x 36			2 x 2900		5,8 kg
FLX 255	2 x 55			2 x 4700		8,0 kg



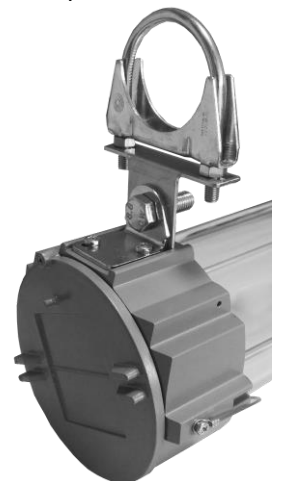
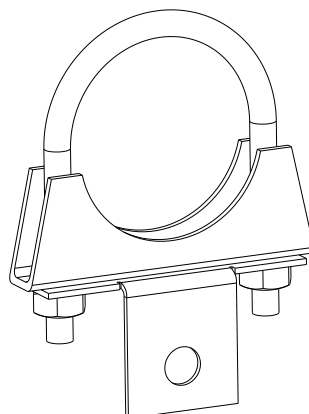
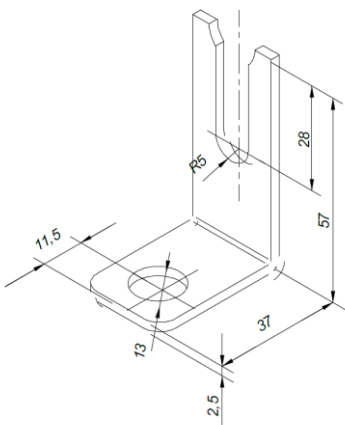
6. MONTAŽA I INSTALACIJA

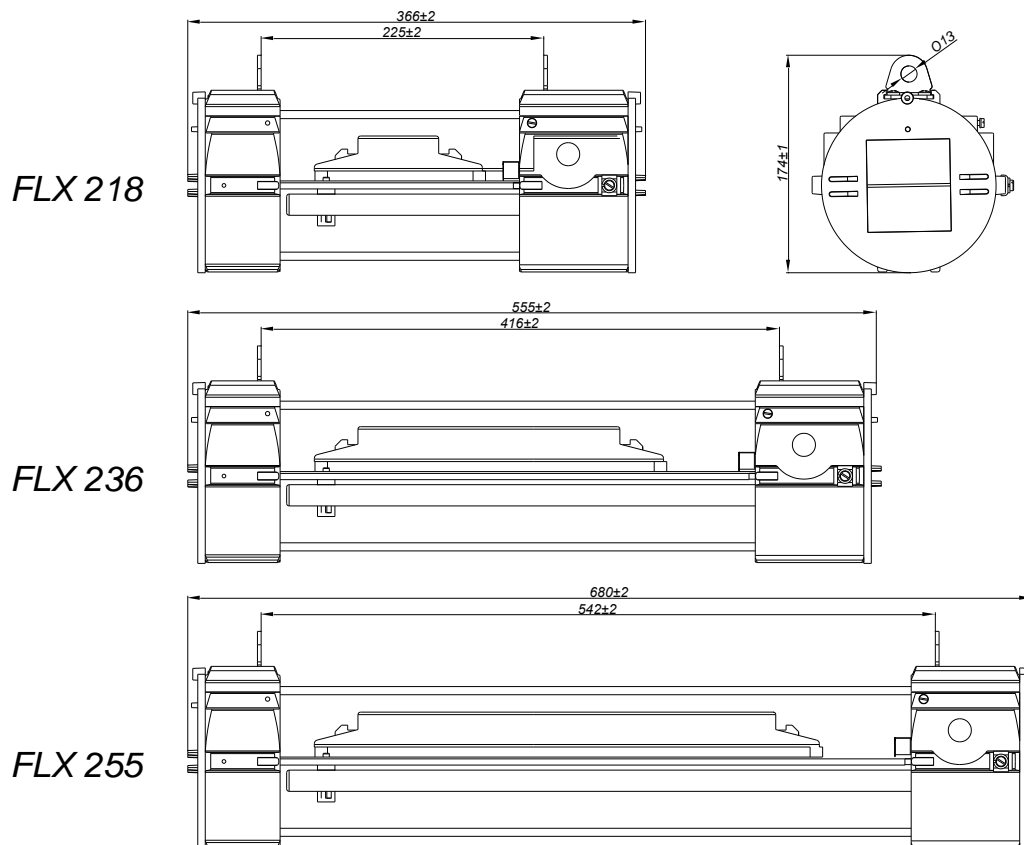
6. MOUNTING AND INSTALLATION

Otvaranje kućišta svjetiljke dozvoljeno je isključivo u BEZNAPONSKOM stanju uz poštivanje UPOZORENJA na natpisnoj naljepnici. Beznaponsko stanje je potrebno osigurati isključenjem napona na glavnoj sklopki. Prije otvaranja kućišta, odvrtanjem poklopca, potrebno je provesti mehaničku deblokadu odvrtanjem blokadnog vijka M5x10 ISO 4027 na poklopcu. Električki priključak se obavlja spajanjem napojnog kabela na stezaljke čahuraste utične stezaljke na temeljnoj ploči : L - fazni vodič, N - neutralni vodič, PE - zaštitno uzemljenje. Vanjsko uzemljenje, izjednačenje potencijala - IP priključiti na predviđenu vanjsku stezaljku. Ex db ulovnice i čepovi te Ex db eb adapteri ne isporučuju se uz svjetiljku, već ih osigurava korisnik. Nakon svakog otvaranja svjetiljke, vijčani spoj treba zaštititi na primjeren način ("Baplex mast"). Zatvaranje kućišta treba izvršiti suprotnim slijedom radnji. Pri instalaciji treba paziti da najveći broj svjetiljaka FLX na jednom automatskom instalacijskom osiguraču 1pC 10A ne bude veći od 8, a na 1pC 16A, ne veći od 13. Standardna montaža svjetiljke se izvodi vertikalnim ovjesom preko ušica s rupom $\varnothing 13$ mm na kućištu. Uz pribor je predviđena montaža na posebne načine:

The opening of the enclosure is exclusively allowed in a non-voltage state while respecting the warnings on the label. The non-voltage state should be secured by shutting the voltage off on the main switch. Before opening the casing by screwing the lid, it is necessary to unblock it mechanically by twisting the blockade screw M5x10 ISO 4027 on the lid. The electric connection is performed by linking power supply cable on the plug on terminals on the motherboard: L-phase conductor, N-neutral conductor, PE-protective grounding. The external grounding, the equalization of potentials-connect the IP to the outer terminal. Ex db cable glands and plugs or Ex db eb adapters for introducing the cables into the casing of the lamp are not a part of the original product, and are secured by the user. During installation, one must follow the instructions of the manufacturers of the glands, plugs, and the adapters. After every opening of the lamp the screw joint should be protected by the lubricating grease "Baplex" protective solution (manufacturer's recommendation). The closing of the casing should be done by a reverse sequence of action. During installation one must also be careful that the maximum number of FLX lamps on one automatic installation fuse IpC 10A is not greater then 8, and on the IpC 16A, not greater then 13.



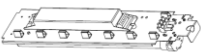

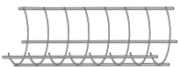


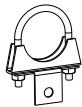

A standard assembly of the lamp is done on a vertical suspension over the eye bolt with a $\varnothing 13$ mm hole on the casing. With the proper equipment, assembly is possible on other ways:





8. REZERVNI DIJELOVI I PRIBOR

8. SPARE PARTS AND ACCESORIES

SKICA (SKETCH)	OPIS (DESCRIPTION)	OZNAKA ZA NARUDŽBU (MODEL CODE)	SKICA (SKETCH)	OPIS (DESCRIPTION)	OZNAKA ZA NARUDŽBU (MODEL CODE)
	Brtna poklopca FLX Cover gasket FLX	FLX 10-120		Ex db ulovnica M20 Ex db cable gland M20	FLX 20-160
	Sklop temeljne ploče FLX ... Base plate FLX ...	FLX 10-130		Ex db čep M20 Ex db plug M20	FLX 20-170
	Zaštitna rešetka FLX ... Protective grid FLX ...	FLX 20-140		Nosač za brzu montažu FLX Wall/ceiling mounting set FLX	FLX 20-180
	Vanjski odsijač FLX ... External reflector FLX ...	FLX 20-150		Nosač na cijev 1"1/2 ili 1"1/4 Pipe mounting set 1"1/2 ili 1"1/4	FLX 20-190
	Adapter ADP 23	ADP 23			

9. ODRŽAVANJE, POPRAVAK, OBNAVLJANJE I PREGRADNJA

Potrebno je obavljati preglede i održavanje svih dijelova o kojima ovisi protueksplozijska zaštita sukladno normi EN 60079-17:2014, općim i posebnim uvjetima proizvođača i Pravilnicima korisnika, a naročito:

- da su kućište, svi dijelovi kućišta, zaštitno staklo i brtva kompletni bez puknuća i oštećenja,
- da su vijci prihvatnih stezaljki pritegnuti nazivnim momentima,
- da su uvodnice i čepovi instalirani prema uputama proizvođača i da su brtve uvodnica neoštećene, a pritisne matice pritegnute nazivnim momentom.

U opseg održavanja ulazi i zamjena dijelova koje proizvođač osigurava i navodi u popisu rezervnih dijelova.

Svi drugi zahvati imaju karakter popravka. Popravak obavlja proizvođač ili od proizvođača ovlaštena pravna osoba, originalnim dijelovima prema proizvodnoj dokumentaciji, a sve sukladno normi EN 60079-19:2011.

Pregradnja i obnavljanje nisu dozvoljeni.

Ukoliko popravak ili bilo koji drugi zahvat na proizvodu obavlja neovlaštena osoba, prestaje svaka odgovornost proizvođača za proizvod, a jamstvo i deklaracija sukladnosti proizvođača postaju nevažeći.

10. ODGOVORNOSTI I OVLAŠTENJA

Ova Uputa predstavlja najvažniju informaciju o proizvodu. Nadopunjuju ju odgovarajući nacionalni zakoni i propisi. Proizvodnja, uporaba, certifikacija i nadzor određene su na nacionalnoj razini:

- a) Pravilnikom o opremi i zaštitnim sustavima namijenjenim za uporabu u prostorima ugroženim eksplozivnom atmosferom (NN br. 34/10.) i
- b) Pravilnikom o najmanjim zahtjevima sigurnosti i zaštite zdravlja radnika te tehničkom nadgledanju postrojenja, opreme, instalacija i uređaja u prostorima ugroženim eksplozivnom atmosferom (NN br. 39/06, 106/07.), tj. EU Direktivi 1999/92/EC (ATEX 137).

Odgovorna osoba dužna je osigurati njihovo provođenje u pogonu.

11. SKLADIŠTENJE I TRANSPORT

Transport i skladištenje treba vršiti samo u originalnoj ambalaži, na način istaknut na kartonskoj kutiji.

12. JAMSTVO PROIZVOĐAČA

Proizvođač daje jamstvo na proizvod u trajanju od godine dana prema odredbama Zakona o obveznim odnosima. Ova izjava ima snagu Jamstvenog lista.

9. INSPECTION, MAINTENANCE, REPAIR AND OVERHAUL

Inspections are carried out in accordance with EN 60079-17:2014, general and special conditions of manufacturer and users Regulations and includes supervision of parts on which the explosion protection depends, especially:

- the housing, all part of housing, protective glass and seal are without rupture and damage,
- the screws of connecting terminals are tightening with nominal torque,
- the glands, plugs, terminals, pressure screw, intermediate gland, screw of the glass cover are without rupture and damage and tightening with nominal torque

All the repairs are performed by the manufacturer or the manufacturer's authorized personal and the original parts must be provided according to the product documentation, all in accordance with EN 60079-19:2011.

Overhaul and modifications are not allowed.

If repair or any other procedure are performed on the product by unauthorized person, all producer responsibility for the product and the warranty and the manufacturer's declaration of conformity becomes invalid.

10. RESPONSIBILITY AND AUTHORIZATION

This instruction is the basic information about the product. It is completed by the corresponding national laws and regulations.

Production, use, certification and supervision are determined at the national level:

- a) Regulations concerning equipment and protective systems intended for use in potentially explosive atmospheres EU directive 94/9 EC (ATEX 94)
- b) Regulations on minimum requirements for safety and health protection of workers and technical inspection of facilities, equipment, installations and equipment in hazardous areas EU directive 1999/92/EC (ATEX 137).

The responsible person shall ensure their implementation at the working facility

11. STORAGE AND TRANSPORT

Transportation and warehousing of the lamps is only allowed in the original packaging, as outlined in a cardboard box.

12. MANUFACTURER'S WARRANTY

The manufacturer provides a warranty on the product for a period of one year under the provisions of this user manual and the law on obligations. This statement has the force of Warranty sheet.

Protueksplozijski zaštićena fluorescentna sigurnosna svjetiljka FLX 218, FLX 236, FLX 255 označena je:

- natpisnom pločicom s tehničkim podacima na kućištu i
- natpisnom naljepnicom s tehničkim podacima unutar kućišta.

Explosion proof emergency fluorescent light fitting type FLX 218, FLX 236, FLX 255 is marked with:

- external marking plate with technical data on housing and
- marking label with technical data inside housing.

