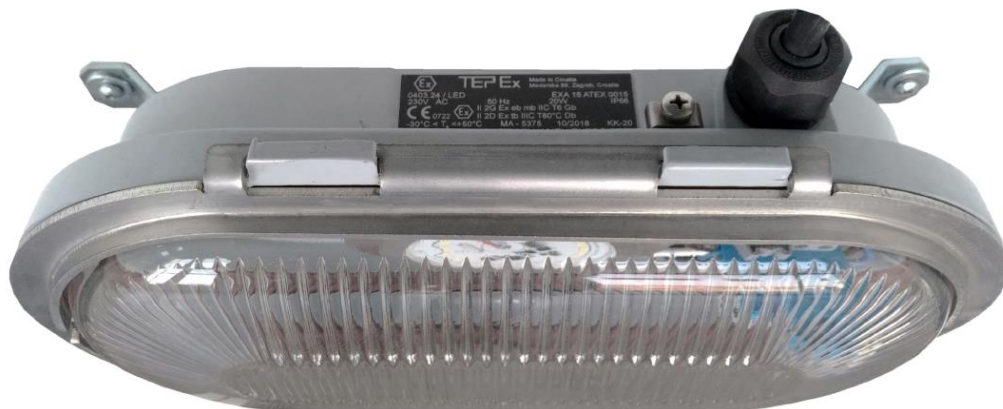


0403.24 LED



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 complements 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 zaštićena zidna LED svjetiljka, tip 0403.24 LED .-. namijenjena je za upotrebu u industrijskim prostorima na mjestima s potencijalno eksplozivnom atmosferom plinova, para i prašina u zonama opasnosti 1, 2, 21, 22 sukladno normama EN 60079-10-1 i EN 60079-10-2.

2. SUKLADNOST PROIZVODA

Konstrukcija svjetiljke sukladna je s normama EN 60598-1 i svim povezanim normama.

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

Proizvod je sukladan sa ATEX Direktivom 2014/34/EU i normama:

- EN IEC 60079-0:2018,
- EN IEC 60079-7:2015/A1:2018,
- EN 60079-18:2015/A1:2017,
- EN 60079-28:2015,
- EN 60079-31:2014.

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

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

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1. PURPOSE

Explosion protected bulkhead light fitting, type 0403.24 LED .-. is intended for general lighting in industrial areas with potentially explosive atmosphere Zones 1, 2, 21, 22 in accordance with EN 60079-10-1 and EN 60079-10-2.

2. PRODUCT CONFORMITY

The construction of the luminaire complies with EN 60598-1 and all related standards.

The product complies with the ATEX Directive 2014/34/EU and standard:

- EN IEC 60079-0:2018,
- EN IEC 60079-7:2015/A1:2018,
- EN 60079-18:2015/A1:2017,
- EN 60079-28:2015,
- 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, EN ISO 80079-34 and EN 14001.

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 EMC Directive 2014/30/EU.

3. TEHNIČKI PODACI

Certifikat	FIDI 19 ATEX 0059															
Oznaka kategorije i Protueksplozijske zaštite uređaja:			II 2G Ex eb mb op is IIC T6 Gb II 2D Ex tb op is IIIC T80°C Db													
Temperatura okoline:	-30°C do +50°C															
Mehanička zaštita:	IP 66															
Otpornost na udar:	IK 08															
Klasa zaštite:	I (PE - zaštitno uzemljenje)															
Nazivni napon Un:	0403.24 LED 1-. – 24 V AC/DC 0403.24 LED 2-. – 48-90 V AC/DC 0403.24 LED 3-. – 110-230 V AC/DC															
Radni napon:	0403.24 LED 1-. – 24 V AC/DC ± 10% 0403.24 LED 2-. – 48-90 V AC/DC ± 10% 0403.24 LED 3-. – 110-230 V AC/DC ± 10%															
Nazivna snaga Pn:	17 W															
Nazivna struja In:	LEDEx 01-1 – 24 VDC - 730 mA – 24 VAC - 990 mA LEDEx 01-2 – 48 VDC - 345 mA – 48 VAC - 500 mA – 90 VDC - 180 mA – 90 VAC - 300 mA LEDEx 01-3 – 110 VDC - 150 mA – 110 VAC - 240 mA – 230 VDC - 70 mA – 230 VAC - 160 mA															
Faktor snage:	>0,95															
LED izvor:	LedEx 01-. – LED SMD 17W															
Maksimalan broj svjetiljaka (kom.) po jednom automatskom instalacijskom prekidaču:	<table><tr><th colspan="4">Automatski instalacijski prekidač (</th></tr><tr><th>1 p B 10A</th><th>1 p C 10A</th><th>1 p B 16A</th><th>1 p C 16A</th></tr><tr><td>15</td><td>20</td><td>20</td><td>25</td></tr></table>				Automatski instalacijski prekidač (				1 p B 10A	1 p C 10A	1 p B 16A	1 p C 16A	15	20	20	25
Automatski instalacijski prekidač (																
1 p B 10A	1 p C 10A	1 p B 16A	1 p C 16A													
15	20	20	25													
OVP zaštita:	IEC 61000-4-5, EN 62031 3kV/1min udarni prenapon 8/20µs 6kV/3kA															
OCP zaštita:	3 AT, IEC 60127 – 0403.24/LED-./.															
OTP zaštita:	T _{smax} =80°C, povratno, IEC 60730-1															
Svjetlosni tok svjetiljke:	0403.24 LED .-. – 2450 lm															
Svjetlosni tok LED izvora:	0403.24 LED .-. – 2720 lm															
Efikasnost sistema:	0403.24 LED .-. – 122 lm/W															
Temperatura boje svjetlosti:	0403.24 LED .-. – 6300 K															
Indeks uzvratu boje (CRI)	>80															
Očekivana životna dob LEDa:	50 000 radnih sati pri t _{amb} =40°C – L90/B10															
Priključne stezaljke:	CMC 1-2, 0,5-4 mm2 za priključak faznog i neutralnog vodiča jednožilni, višežični stezaljka za unutarnje i vanjsko uzemljenje (izjednačenje potencijala) - max. 2 x 6 mm2 - sol(r), sol(s), f moguće prolazno ožičenje max. 16A za ožičenje 2,5 mm2															
Uvodi:	2 x ISO 25															
Ex eb uvodnica i čep:	jedna ATEX certificirana Ex eb II 2G / II 2D kabelska uvodnica M25x1,5 (dva brtvena prstena Øv 7-10 / Øv 10-15 mm (za skupinu većih vanjskih promjera kabela, treba ukloniti unutarnji brtveni prsten) i jedan Ex eb II 2G / II 2D certificirani čep M25x1,5 sukladno EN 62444 , sastavni su dijelovi svjetiljke															
Momenti pritezanja:	Vijci M5x25/10 za pričvršćenje okvira stakla: 4 Nm Pritisna matica Ex e uvodnice 2,5 Nm Tijelo Ex e uvodnice i čepa 3,5 Nm															
Osnovne mjere:	335x192x95 mm (DxŠxV)															

3. TECHNICAL DATA

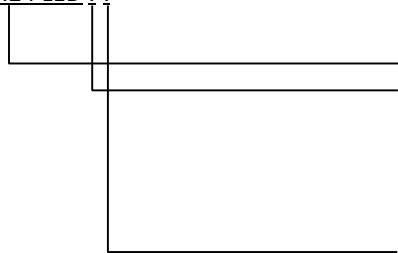
Certificate:	FIDI 19 ATEX 0059															
Category and explosion protection:		II 2G Ex eb mb op is IIC T6 Gb II 2D Ex tb op is IIIC T80°C Db														
Ambient temperature:	-30°C to +50°C															
Mechanical protection:	IP66															
Resistance to shock:	IK 08															
Class of protection:	I (PE - protective earthing)															
Rated voltage Un:	0403.24 LED 1-. – 24 V AC/DC 0403.24 LED 2-. – 48-90 V AC/DC 0403.24 LED 3-. – 110-230 V AC/DC															
Operate voltage:	0403.24 LED 1-. – 24 V AC/DC ± 10% 0403.24 LED 2-. – 48-90 V AC/DC ± 10% 0403.24 LED 3-. – 110-230 V AC/DC ± 10%															
Rated power Pn:	17 W															
Rated current In:	LEDEx 01-1 – 24 VDC - 730 mA – 24 VAC - 990 mA LEDEx 01-2 – 48 VDC - 345 mA – 48 VAC - 500 mA – 90 VDC - 180 mA – 90 VAC - 300 mA LEDEx 01-3 – 110 VDC - 150 mA – 110 VAC - 240 mA – 230 VDC - 70 mA – 230 VAC - 160 mA															
Power factor:	>0,95															
LED light source:	LedEx 01-. – LED SMD 17W															
Maximum number of lamps (pieces) per one automatic circuit breaker:	<table><tr><th colspan="4">Automatic circuit breaker</th></tr><tr><th>1 p B 10A</th><th>1 p C 10A</th><th>1 p B 16A</th><th>1 p C 16A</th></tr><tr><td>4</td><td>7</td><td>8</td><td>14</td></tr></table>				Automatic circuit breaker				1 p B 10A	1 p C 10A	1 p B 16A	1 p C 16A	4	7	8	14
Automatic circuit breaker																
1 p B 10A	1 p C 10A	1 p B 16A	1 p C 16A													
4	7	8	14													
OVP protection:	IEC 61000-4-5, EN 62031 3kV/1min - impulse overvoltage 8/20µs 6kV/3kA															
OCP protection:	3 AT, IEC 60127 – 0403.24/LED-./.															
OTP protection:	T _{smax} =80°C, resettable, IEC 60730-1															
Light fitting luminous flux:	0403.24 LED .-. – 2450 lm															
LED source luminous flux:	0403.24 LED .-. – 2720 lm															
System efficacy:	0403.24 LED .-. – 122 lm/W															
Light colour:	0403.24 LED .-. – 6300 K															
Refractive index(CRI):	>80															
Estimated service life:	50 000 working hours t _{amb} =40°C – L90/B1															
Connection terminal:	CMC 1-2, 0,5-4 mm2 for connection of phase and neutral Conductor, Single-core, stranded Terminal for internal and external grounding, max 2 x 6 mm2 sol(r), sol(s), f Possible through-wiring max.16A for 2.5 mm2 wiring															
Cable entries:	2 x ISO25															
Ex eb cable gland and plug:	One ATEX certificated Ex eb II 2G / II 2D cable glands M25x1,5 with two sealing rings Øv 7-10 / Øv 10-15 mm (for the group of higher outer diameters of the cable, the inner sealing ring should be removed), and one Ex eb II 2G / II 2D plug M25x1,5 according to EN 62444 are integral parts of lamps															
Tightening torques values:	Screws M5x25 / 10 for fixing the protective grid: 4 Nm Pinch Nut of the Ex e cable glands: 2.5 Nm Body of the Ex e glands and plug: 3.5 Nm															
Basic measures:	335x192x95 mm (LxWxH)															
Installation on the surface:	two sheet metal brackets attached with screw kit M6															

Montaža na podlogu:	dva limena nosača pričvršćena vijčanim priborom M6
Montaža na cijev:	limeni nosač pričvršćen vijčanim priborom M6 sa jednom obujmicom (od $\phi 42$ mm do $\phi 65$ mm), mogućnost rotiranja za 90°
Masa:	cca 4kg

Pipe mounting:	sheet metal bracket attached with screw kit M6 and one clamp(from $\phi 42$ mm to $\phi 65$ mm), possible rotation 90°
Weight:	ca 4 kg

4. TIPNA OZNAKA

0403.24 LED .-.



Osnovna tipna oznaka / Basic model type:

Oznaka napona / Rated voltage:

- 1 - 24 V DC $\pm 10\%$
- 2 - 48 - 90 V AC/DC
- 3 - 110 - 230 V AC/DC

Boja stakla /Glass colour:

- 1 – prozirno / transparent
- 2 – zeleno / green
- 3 – crveno / red
- 4 – žuto / yellow

5. MONTAŽA I INSTALIRANJE

Montaža i instaliranje svjetiljke se izvodi prema podacima na natpisnim pločicama na svjetiljci, ovim i dodatnim uputama proizvođača, nacionalnim Propisima i Pravilnicima, kao i prema općenito priznatim pravilima tehnike. Samo uz taj uvjet osigurana je protueksplozijska zaštita svjetiljke. Kvaliteta upotrijebljenih materijala jamči funkcionalnost sukladnu normi, u «normalnoj» industrijskoj atmosferi. Za posebne uvjete pogona molimo kontaktirati proizvođača.

Montaža svjetiljke na podlogu vrši se preko dva limena nosača te pričvršćuje vijčanim priborom M6 koji se isporučuju uz svjetiljku. Montaža svjetiljke na cijev vrši se preko jednog limenog nosača i obujmice (od $\phi 42$ mm do $\phi 65$ mm) vijčanim priborom M6 koji se isporučuje uz svjetiljku.

Otvaranje kućišta se vrši odvrtanjem dva vijka M5x25. Priklučni kabel se uvodi u kućište kroz predviđene uvodnice. Pri tome treba provjeriti da su kabeli čisti i neoštećeni. Posebnu pažnju treba posvetiti odabiru unutarnjeg brtvenog prstena uvodnice SPU 25 (FIDI 19 ATEX 003X) prema vanjskom promjeru kabela. Pritisnu maticu uvodnice i tijelo uvodnice treba pritegnuti nazivnim momentom. Neiskorišteni uvod, na isti način, obavezno treba zatvoriti čepom. Električno spajanje vrši se spajanjem vodiča L1 i N na priključne stezaljke na DIN nosaču i priključkom vodiča PE na stezaljku za uzemljenje na kućištu. Moguće je prolazno ožičenje do max. 16 A

Zatvaranje kućišta se izvodi na opisani način, suprotnim redoslijedom radnji.

4. TYPE

5. INSTALLATION AND PUTTING INTO OPERATION

Assembly and installation of the lamp is performed according to the data on the nameplates on the lamp, these and additional instructions of the manufacturer, national Regulations and Regulations, as well as according to generally accepted rules of technology. Only under this condition is the explosion protection of the lamp ensured. The quality of the materials used guarantees the functionality in accordance with the norm, in a "normal" industrial atmosphere. For special operating conditions, please contact the manufacturer.

The luminaire is mounted on the base via two sheet metal brackets with M6 screw accessories that are supplied with the luminaire.

The luminaire is mounted on the pipe via a sheet metal bracket and a clamp (from $\phi 42$ mm to $\phi 65$ mm) with M6 screw accessories supplied with the luminaire.

Opening the housing is done by unscrewing two M5x25 screws. The connecting cable is introduced into the housing through the provided glands. In doing so, make sure that the cables are clean and undamaged. Particular attention should be paid to the selection of the inner sealing ring of the cable gland SPU 25

(FIDI 19 ATEX 003X) according to the outer diameter of the cable. The union nut and nut must be tightened to the rated torque. Unused introduction, in the same way, must be closed with a stopper. The electrical connection is made by connecting conductors L1 and N to the connection terminals on the DIN rail and by connecting the PE conductor to the earth terminal on the housing. Transient wiring up to max. 16 A

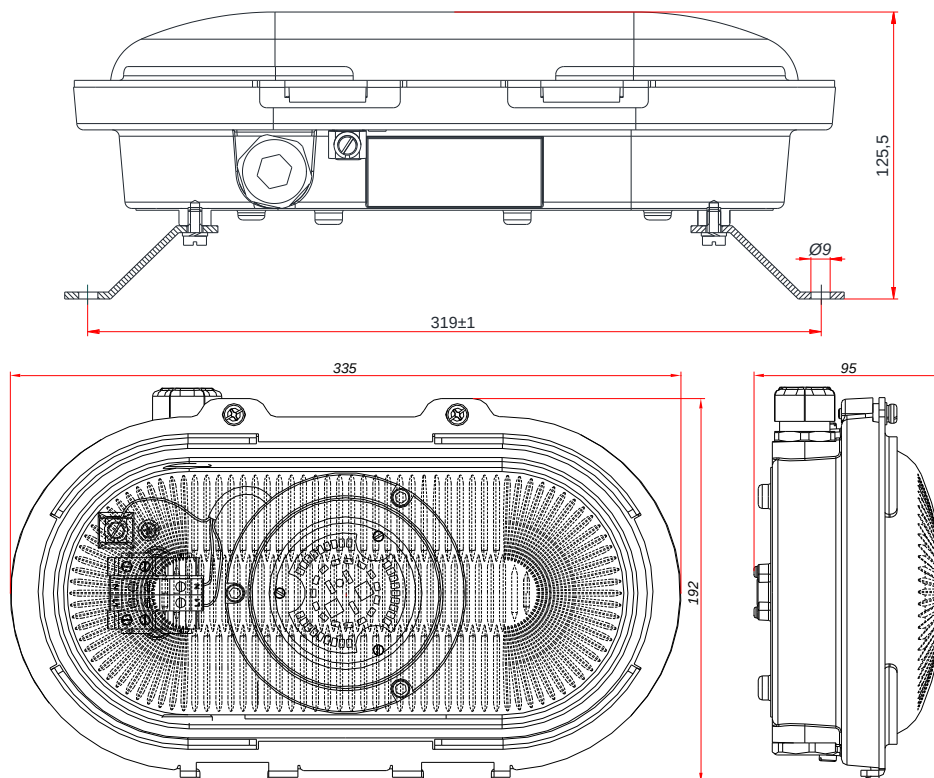
Closing the housing is performed as described, in the opposite order of actions.

6. POSEBNI UVJETI UPORABE

Znak X iza broja certifikata o ispitivanju tipa upućuje na specifične uvijete montaže i upotrebe:

- Uvodnica SPU 25 ispitana s nižom energijom udara sukladno EN IEC 60079-0:2018 te mora biti ugrađena na mjestu s manjom opasnosti od udara,
- Korisnik mora kod uvodnice SPU 25 osigurati dodatno sidrenje kabela zato što je uvodnica ispitana sa silom izvlačenja reduciranom na 25%.

7. DIMENZIJE



6. SPECIFIC CONDITION OF USE

The sign X after the number of the type-examination certificate refers to the specific conditions of installation and use:

- Cable gland SPU 25 was tested with lower impact energy according to EN IEC 60079-0:2018 therefore it has to be installed in places with a lower risk of impact,
- The user shall provide additional clamping of the cable because the clamping teste was performed with value of extraction force reduced to 25%.

7. DIMENSIONS

8. PREGLED, ODRŽAVANJE, POPRAVAK I OBNAVLJANJE

Potrebno je obavljati preglede i održavati sve dijelove uređaja o kojima ovisi protueksplozijska zaštita sukladno normi EN 60079-17, općim i posebnim uputama proizvođača i Pravilnicima korisnika, a naročito:

- o da su kućište, svi dijelovi kućišta, zaštitno staklo i brtve bez puknuća i oštećenja,
- o da je kućište potpuno zatvoreno sklopom zaštitnog stakla,
- o da su uvodnica, čep, vijci kutnika brtve, vijak stezaljke za uzemljenje pritegnuti nazivnim momentom.

Popravak, obnavljanje ili pregradnju kućišta obavlja proizvođač ili od proizvođača ovlaštena pravna osoba, originalnim dijelovima prema proizvodnoj dokumentaciji, a sve sukladno normi EN 60079-19.

Ukoliko popravak i/ili obnavljanje i/ili pregradnju vrši treća osoba, prestaje svaka odgovornost proizvođača za proizvod, a izjava sukladnosti proizvođača postaje nevažeća.

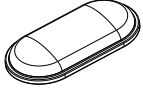
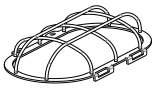
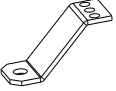
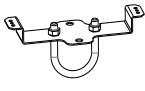
8. INSPECTION, MAINTENANCE, REPAIR AND OVERHAUL

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

- o that the housing, all part of housing, protective glass and gasket are without rupture and damage,
- o that the housing is completely closed with set of protective glass
- o that the cable gland, plug, connecting terminals, screws of protective grid are tightened with nominal torque.

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

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.

SKICA SKETCH	OPIS DESCRIPTION	OZNAKA ZA NARUDŽBU ORDER CODE	SKICA SKETCH	OPIS DESCRIPTION	OZNAKA ZA NARUDŽBU ORDER CODE
	Zaštitno staklo 0403.24 LED Protective glass 0403.24 LED	0403.24 LED 10-110		II 2G Ex e II uvodnica M25 II 2G Ex e II cable gland M25	SPU 25
	Zaštitna rešetka 0403.24 LED Protective grid 0403.24 LED	0403.24 LED 20-120		II 2G Ex e II Čep M25 II 2G Ex e II plug M25	SPC 25
	LED modul LEDEx 01 LED module LEDEx 01	LEDEx 01		Sklop stezaljke 0403.24 LED Terminal set 0403.24 LED	0403.24 LED 10-130
	Brtva 0403.24 LED Gasket 0403.24 LED	0403.24 LED 10-140		Nosač na zid 0403.24 LED Bracket for wall 0403.24 LED	0403.24 LED 10-160
	M25 metalna uvodnica za nearmirane kabele M25 metal cable gland for unarmored cable	0403.24 LED 10-150		Nosač na cijev od Φ42 mm do Φ65 mm 0403.24/LED Bracket for pipe from Φ 42mm to Φ65 mm 0403.24/LED	0403.24 LED 10-170

10. ODGOVORNOSTI I OVLAŠTENJA

10. RESPONSIBILITY AND AUTHORIZATION

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

- Pravilnikom o opremi i zaštitnim sustavima namijenjenim za uporabu u prostorima ugroženim eksplozivnom atmosferom (NN br. 33/16, odnosno EU Direktiva ATEX 2014/34/EU) i
- 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.), odnosno EU Direktivi 1999/92/EC (ATEX 137).

Odgovorna osoba dužna je osigurati njihovo provođenje u pogonu.

This instruction is the basic information about the product. It is complementing with the corresponding national laws and regulations.

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

- Regulations concerning equipment and protective systems intended for use in potentially explosive atmospheres EU directive ATEX 2014/34/EU
- 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. SKLADIŠTENJE I TRANSPORT

11. STORAGE AND TRANSPORT

Transport i skladištenje svjetiljke treba vršiti samo u uvjetima kako je rečeno u ovoj uputi u originalnoj ambalaži, na način istaknut na kartonskoj kutiji.

Transport and storage are only allowed in the original packaging, on the way pointed out on the carton box.

12. JAMSTVO PROIZVOĐAČA

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

13. OZNAČAVANJE

Protueksplozijski zaštićena zidna svjetiljka, tip 0403.24 LED -.-. označena je s pločicom i naljepnicom s tehničkim podacima:

12. MANUFACTURER'S WARRANTY

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

13. MARKING

Explosion protected bulkhead light fitting, type 0403.24 LED -.-. is marked with the external and the inner label with technical data:

