

#### NAMJENA

Protueksplozijski zaštićena zidna svjetiljka, tip 0403.24/. namjenjena je za upotrebu u:

- nadzemnoj industriji na mjestima koja su ugrožena eksplozivnim smjesama plinova i para zapaljivih tekućina sa zrakom u zonama opasnosti 1 i 2 sukladno normi EN 60079-10/03,
- rudarstvu s podzemnom eksploatacijom na mjestima koja su ugrožena eksplozivnim i zapaljivim plinovima, prašinama i njihovim kombinacijama.

#### STUPANJ ZAŠTITE

Protueksplozijska zaštita je izvedena u vrstama zaštite "povećana sigurnost" i "oklapanje" uvažavajući "opće zahtjeve" sukladno normama EN 50019/00. , EN 50018/00.+A1/02. i EN 50014/97.+C1/98.+A1,A2/99.

Tipni certifikat sukladnosti: HREx T 05.011 X

Oznaka kategorije uređaja: I M2 II 2G

Oznaka protueksplozijske zaštite: - tip 0403.24/10 - EEx ed IIC T2, T3  
- tip 0403.24/11,12 - EEx ed IIC T3  
- tip 0403.24/20 - EEx de I

Mehanička zaštita: IP 54 sukladno EN 60529+A1

Otpornost na udar: IK 08 sukladno EN 50102

Klasa zaštite: I ( zaštitno uzemljenje ) sukladno EN 61140

#### TABLICA IZVEDBI

**Tip 0403.24/10** - EEx ed IIC T2 -100W max. EN 60064 / 230V AC, 110V AC

- $-30^{\circ}\text{C} < T_a < +40^{\circ}\text{C}$  bez ograničenja na priključni kabel
- $-30^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$  priključni kabel termostabilnosti veće od  $110^{\circ}\text{C}$

- 60W max. EN 60064 / 230V AC, 110V AC, 24V AC/DC

- $-30^{\circ}\text{C} < T_a < +50^{\circ}\text{C}$  bez ograničenja na priključni kabel

- EEx ed IIC T3 - 60W max. DIN 49810 Bl.4 / 230V AC

- $-30^{\circ}\text{C} < T_a < +50^{\circ}\text{C}$  bez ograničenja na priključni kabel

**Tip 0403.24/11** - EEx ed IIC T3 - 40W DIN 49810 Bl.4 / 230V AC

- $-30^{\circ}\text{C} < T_a < +50^{\circ}\text{C}$  bez ograničenja na priključni kabel

**Tip 0403.24/12** - EEx ed IIC T3 - 40W DIN 49810 Bl.4 / 230V AC

- $-30^{\circ}\text{C} < T_a < +50^{\circ}\text{C}$  bez ograničenja na priključni kabel

**Tip 0403.24/20** - EEx ed I -100W max. EN 60064 / 230V AC, 110V AC

- $-20^{\circ}\text{C} < T_a < +40^{\circ}\text{C}$  bez ograničenja na priključni kabel

#### KONSTRUKCIJA

U ovalnom kućištu izrađenom od aluminijske legure AISi10Mg ili sivog lijeva SL20 ugrađeno je EEx grlo E27. Kućište je zatvoreno zaštitnim staklom. Staklo je zaštićeno čeličnom zaštitnom rešetkom. Brtvljenje je osigurano profiliranom silikonskom brtvom smještenom između zaštitnog stakla i kućišta.

Konstrukcija svjetiljke u skladu je s normom EN 60598-1 i svim povezanim normama.

#### TEHNIČKI PODACI

Nazivni napon svjetiljke: 250 V AC

Nazivni napon žarulje: 230V AC, 110V AC, 24V AC/DC

Žarulja: 100W max. / 230V AC, 110V AC, 24V AC/DC, EN 60064  
60 W max./ 230V AC, DIN 49810 Bl.4 - žarulja s ▽znakom

Grlo: E 27, EN 60238

Svjetlosni tok: 1160 lm / 100W, 575 lm / 60W

Priključne stezaljke: - stezaljke za priključak faznog i neutralnog vodiča L, N - max.  $4\text{ mm}^2$  - jednožilni, višežični  
- stezaljka za unutarnje i vanjsko uzemljenje (izjednačenje potencijala) - max.  $2 \times 6\text{ mm}^2$  - jednožilni, višežični, mnogožični

EEx e i uvodnica i čep: - za I M2 trubasta kabela uvodnica i čep EEx e I, ne isporučuju se sa svjetiljkom  
- za II 2G: jedna EEx e II kabela uvodnice M25x1,5 za promjere kabela  $\varnothing 6-15\text{ mm}$ , i jedan EEx e čep M25x1,5 sukladno EN 50262, isporučuju se sa svjetiljkom

Momenti pritezanja: Žarulje u grlo E27: 1,5 Nm  
Matice vijka „T“ M6x50 za zatvaranje kućišta: 4 Nm

Vijaka stezaljke grla: 1,8 Nm

Pritisne matica EEx e II uvodnice 2,5 Nm

Tijela EEx e II uvodnice i čepa 3,5 Nm

Boja stakla: Tip 0403.24/11 - staklo obojano signalno crveno RAL3001

Tip 0403.24/21 - staklo obojano signalno zeleno RAL6032

Montaža na podlogu: Vijčani pribor M8, ne isporučuje se sa svjetiljkom

Osnovne mjere: 355x190x195 mm (DxŠxV)

Masa: ca 3,8 / 6,0 kg

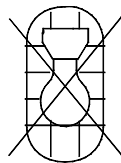
Označavanje: CE

## MONTAŽA I ELEKTRIČNI PRIKLJUČAK

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 tipnim certifikatom potvrđena protueksplozijska zaštita svjetiljke. Kvaliteta upotrebljenih materijala jamči funkcionalnost sukladnu normi, u «normalnoj» industrijskoj atmosferi. Za posebne uvjete pogona molimo kontaktirati proizvođača.

Montaža svjetiljke na podlogu se vrši preko dva limena nosača vijčanim priborom M6 koji se isporučuju uz svjetiljku.

Za sve tipove svjetiljaka nije dozvoljena vertikalna montaža s grlom u gornjem dijelu svjetiljke.



Za područje rudarstva svjetiljka mora biti ugrađena na mjesta s manjom opasnosti od mehaničkog udara (na ovaj posebni uvjet protueksplozijske zaštite upućuje znak X uz broj tipnog certifikata).

Otvaranje kućišta se vrši odvrtanjem „T“ vijka M6x50 šesterostranim nasadnim ključem 10. Priklučni kabel se uvodi u kućište kroz predviđene uvednice. Pri tome treba provjeriti da su kabeli čisti i neoštećeni. Posebnu pažnju treba posvetiti odabiru unutarnjeg brtvenog prstena uvednice prema vanjskom promjeru kabela. Pritisnu maticu uvednice i tijelo uvednice treba pritegnuti nazivnim momentom. Neiskorišteni uvod, na isti način, obavezno treba zatvoriti čepom. Električno spajanje se vrši na stezaljkama grla ispod keramičke kape, priključkom vodiča kabela na priključne stezaljke L, N, PE i pritezanjem vijka stezaljke nazivnim momentom. Nije moguće prolazno trofazno ožičenje.

Posebnu pažnju treba osigurati:

- da se prema temperaturnoj klasi i tempertauri okoline pravilno odabere žarulja s obzirom na napon, izvedbu i snagu,
- da se prema snazi žarulje i temperaturi okoline pravilno odabere tip priključnog kabela s obzirom na njegovo toplinsku postojanost.

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

## SKLADIŠTENJE I TRANSPORT

Transport i skladištenje svjetiljke dozvoljeno je samo u originalnoj ambalaži, na način istaknut na kartonskoj kutiji.

## PREGLED, ODRŽAVANJE I POPRAVAK

Potrebno je izvoditi preglede svih dijelova o kojima ovisi protueksplozijska zaštita sukladno normi IEC 60079-17, općim i posebnim uvjetima proizvođača i pravilnicima korisnika, a naročito:

- da su kućište, zaštitno staklo i brtve bez puknuća i oštećenja,
- da su uvednice, čepovi i priključne stezaljke, žarulja i „T“ vijak kućišta pritegnuti nazivnim momentom.

Održavanje svjetiljke predstavlja zamjena onih dijelova svjetiljke novim koje proizvođač isporučuje kao rezervne dijelove.

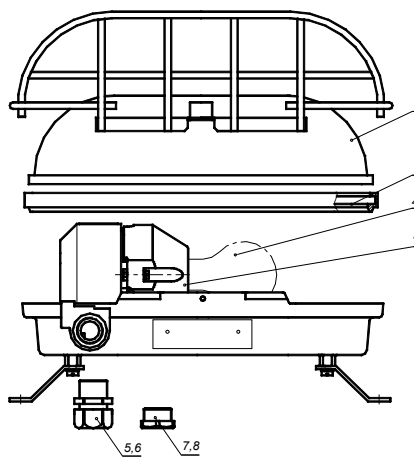
Popravak svjetiljke vrši proizvođač isključivo vlastitim originalnim rezervnim dijelovima prema proizvodnoj dokumentaciji, a sve sukladno normi IEC 60079-19. Ukoliko popravak vrši druga ovlaštena osoba prestaje svaka odgovornost proizvođača za proizvod, a deklaracija o sukladnosti proizvođača postaje nevažeća.

Rezervni dijelovi:

1. EEx grlo E27, tip 73.91.50
2. Brtva kućišta 0403.24
3. Zaštitno staklo 0403.24

Pribor:

4. Žarulja 100W, 60W, 40W / 230V, 110V, 24V - IEC 60064  
Žarulja 60W, 40W / 230V - DIN 49810 B1.4 (žarulja s ▽ znakom)
5. II 2G EEx e II kabelska uvednica M25 s brtvom, tip SPU 25
6. I M2 EEx e I trubasta kabelska uvednica M25, komplet
7. II 2G EEx e II čep M25 s brtvom, tip SPC 25
8. I M2 EEx e I čep M25, komplet



## ODGOVORNOSTI I OVLAŠTENJA

Odgovornosti i ovlaštenja određena su Pravilnikom o tehničkom nadzoru električnih postrojenja, instalacija i uređaja namijenjenih za rad u prostorima ugroženim eksplozivnom atmosferom (NN 02/02).

Ova Uputa predstavlja najvažniju informaciju o proizvodu. Nadopunjuju ju odgovarajući nacionalni Propisi i Naredbe zakonodavca. Odgovorna osoba korisnika dužna je osigurati njihovo provođenje u pogonu.

Svaka neispravna i nedozvoljena uporaba kao i nepoštivanje odredbi ove Upute isključuje svaku odgovornost proizvođača.

**PURPOSE**

Explosion protected bulkhead light fitting type 0403.24/.. is intended for use:

- in industry areas endangered by flammable and explosive mixtures of gases and air, fumes of flammable liquids and air, or various combinations between the two, in danger zones 1,2 in ordinance with standards IEC 60079-10/03,
- in mines endangered by explosive and flammable mixtures of gases and air, fumes of flammable liquids and air, or various combinations between the two, or flammable mixtures of dust and air.

**TYPE OF PROTECTION**

Explosion protection is achieved by the use of requirements of the protection types: " Ex d flameproof enclosure" in accordance with EN 60079-1:2007., "Ex e increased safety" in accordance with EN 60079-7:2007 and "General requirements" in accordance with EN 60079-0:2006.

EC-Type Examination Certificate: CESI 08 ATEX 017X

Apparatus category: I M2 II 2G

Marking of explosion-protection: - type 0403.24/10 - Ex ed IIC T2, T3  
- type 0403.24/11,12 - Ex ed IIC T3  
- type 0403.24/20 - Ex de I

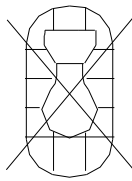
Degree of protection (IP Code): IP 64 in accordance with EN 60529+A1, category 1

Resistance to shock: IK 08 in accordance with EN 50102

Insulation class : I (protective earthing) in accordance with EN 61140

**MODEL CODE**

**Type 0403.24/11** Ex ed IIC T3 – 40W DIN 49810 B1.4 / 230V AC -30°C < T<sub>a</sub> < +50°C without limitations on connecting cable  
**Type 0403.24/12** Ex ed IIC T3 – 40W DIN 49810 B1.4 / 230V AC -30°C < T<sub>a</sub> < +50°C without limitations on connecting cable  
**Type 0403.24/20** Ex ed I – 100W max. EN 60064 / 230V, 110V AC -20°C < T<sub>a</sub> < +40°C without limitations on connecting cable  
**Type 0403.24/10** - as shown on warning label below

<b>MOUNTING LIMITATION</b>	IEC 60064		DIN 49810 B1.4
	230V AC ; 110V AC	24V AC/DC	230V AC
	100W max	60W max	60W max
	-30°C < T <sub>a</sub> < +40°C	-30°C < T <sub>a</sub> < +50°C	-30°C < T <sub>a</sub> < +50°C
	WITHOUT LIMITATIONS ON CABLE WALL LIGHT VERTICAL UP ONLY	USE CABLE SUITABLE FOR A MINIMUM TEMPERATURE OF 90°C	WITHOUT LIMITATIONS
	<b>T2</b>		<b>T3</b>

**TEHNICAL DATA**

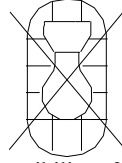
Rated bulkhead voltage: 250 V AC  
 Rated lightbulb voltage: 230V AC, 110V AC, 24V AC / DC  
 Lightbulb: 100W max. / 230V AC, 110V AC, 24V AC / DC – EN 60064  
 60W max / 230V AC – DIN 49810 B1.4 [lightbulb with ▽ marking]  
 Lampholder: E27, EN 60238  
 Connecting terminals: L, N - max. 4mm<sup>2</sup> solid, stranded  
 Terminal for protective earthing conductor connection -PE; max 2 x 6 mm<sup>2</sup> stranded  
 EEx e cable gland and plug: I M2 trumpet-shaped cable gland and plug EEx e I are not delivered with light fitting  
 II 2G – one EEx e II cable gland M25x1,5 for cable ø6-15mm, and one EEx e plug M25x1,5 in accordance with EN 50262 are delivered with light fitting  
 Tightening torque: Lightbulb in E27 lampholder: 1,5 Nm  
 Nut for »T« screw M6x50: 4 Nm  
 Screw of connecting clamp of E27 lampholder: 1,8 Nm  
 Cable gland screw EEx e II: 2,5 Nm  
 Cable gland EEx e II body and plug: 3,5 Nm  
 Protective glass colour: Type 0403.24/11 – signal red RAL 3001  
 Type 0403.24/21 – signal green RAL 6032  
 Dimension: 355x190x195 mm  
 Mass: netto 3,8kg  
 Marking: CE

## ASSEMBLAGE AND ELECTRIC CONNECTION

Assemblage and installation is done according to technical and certification data on warning labels on lamp, this user manual of manufacturer, national regulations and laws. Only with that, explosion-proof protection of bulkhead light fitting is ensured with EC-type examination certificate.

Installation of lamp (on wall or ceiling) is done with two steel brackets with M6 screws which are delivered with lamp.

For all types of lamp, vertical mounting is not allowed with lampholder in upper section of lamp.



In mining areas the lamp must be installed in places with low possibility of mechanical impact (on this special demand indicate the mark X from EC-type examination certificate).

Opening of Exe enclosure is done by unscrewing »T« screw M6x50 with wrench number 10. Connection cable is introduced in Exe casing trough M25x1,5 Exe cable gland. Special attention must be dedicated to selection of inner gasket sealing ring of Exe gland according to diameter of connecting cable. Gland screw and gland body with threads must be tightened with torque regulated by manufacturer. Unused cable introduction must be closed with plug. The electric connection is performed by linking power supply cable (L, N, PE) on the lampholder E27 connecting clamps and tightening the screws of connecting clamps with tightening torque regulated by manufacturer.

Special attention have to be on following:

- lightbulb must be choosed correctly according to temperature class and ambient temperature, taking into account rated lightbulb voltage, power, and lamp type,
- type of connecting cable must be choosed correctly according to ambient temperature and lightbulb wattage, taking into account cable temperature class.

The closing of the Exe enclosure should be done by a reverse sequence of action.

## STORAGE AND TRANSPORT

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

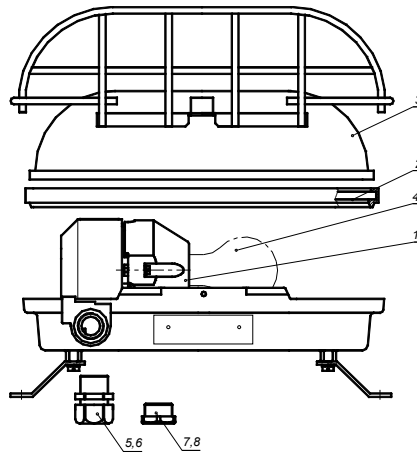
## CONTROL, MAINTENANCE AND REPAIR

It is necessary to conduct review and maintenance on all parts on which the explosion proof protection depends in accordance to standards IEC 60079-17, general and individual demands of the manufacturer and the regulations of the user, and especially:

- that the casing, the protective glass and the gaskets are completely without a cracks or damage,
- that the Exe gland and gasket, connecting terminals, lightbulb, and »T« screw are tightened with torque regulated by manufacturer.

Maintenance presume replacing of parts which are delivered by manufacturer as a spare parts.

All other interventions on lamp have attribute of a repair. The repair of the lamp is done by the manufacturer or a person legally authorized by the manufacturer, with original parts from the products documentation, and in accordance to the IEC 60079-19 standards. If the repair is done by a third person, the manufacturer is free of all responsibility from the product, and the declaration of conformity which is given by the manufacturer becomes insignificant.



### Spare parts:

1. EEx E27 lampholder, type 73.91.50
2. Glass gasket 0403.24
3. Protective glass 0403.24

### Accessories:

1. Lightbulb 100W, 60W, 40W / 230V, 110V, 24V – IEC 60064  
Lightbulb 60W, 40W / 230V – DIN 49810 B1.4 (lightbulb with ▽ marking)
2. II 2G EEx e II cable gland M25 with gasket, type SPU25
3. I M2 EEx e I trumpet-shaped cable gland, set
4. II 2G EEx e II plug M25 with gasket, type SPC25
5. I M2 EEx e I plug M25, set

## RESPONSIBILITY AND AUTHORIZATION

Responsibility and authorization are defined by the "Regulation on technical supervision over the electrical stations, installations and equipment intended for usage in potentially explosive atmospheres". This Manual represents the most relevant information about the product. Adequate national laws and regulations supplement it. The person in charge is required to secure its employment in the industrial unit. Every improper usage, as well as every unofficial restructuring, repair or restoration of the product, release the manufacturer of all responsibilities.