

Razvodna kutija RK 01 /...

Junction box RK 01 /...



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 zaštićena razvodna kutija RK 01/... namijenjena je za spajanje i razvod vodova i kabela do nazivnog presjeka 6 mm² u industrijskim prostorima na mjestima koja su ugrožena potencijalnom eksplozivnom atmosferom plinova, para i prašina u zonama opasnosti 1, 2, 21, 22 sukladno normi EN 60079-10-1/-2.

2. STUPANJ ZAŠTITE

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

Proizvod je sukladan ATEX Direktivi 2014/34/EU i normama:

- EN IEC 60079-0:2018,
- EN IEC 60079-7:2015/A1:2018,
- EN 60079-11:2012,
- 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 ISO 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.

Certifikat: FIDI 19 ATEX 0002X

Znak X iza broja certifikata o ispitivanju tipa upućuje na specifične uvjete uporabe:

- uvodnica je ispitana s nižom energijom udara sukladno EN 60079-0 te mora biti ugrađena na mjesta s manjom energijom od udara,
- stupanj zaštite IP66 bit će osiguran samo kada se brtvljenje i ulazak kabela na uvodnici pravilno izvede te je pri instaliranju potrebno slijediti upute proizvođača,
- korisnik mora osigurati dodatno sidrenje kabela zato što je kabelaška uvodnica ispitana sa silom izvlačenja reduciranom na 25%.

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1. PURPOSE

Explosion proof junction box RK 01/... are used for connection and distribution of wires and cables up to 6mm² in industrial areas with potentially explosive atmosphere in Zones 1, 2, 21, 22 according to EN 60079-10-1/-2.

2. TYPE OF PROTECTION

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

- EN IEC 60079-0:2018,
- EN IEC 60079-7:2015/A1:2018,
- EN 60079-11:2012,
- 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 ISO 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 the EMC Directive 2014/30/EU.

Certificate: FIDI 19 ATEX 0002X

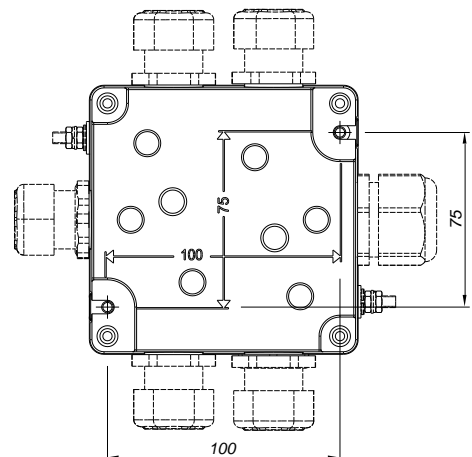
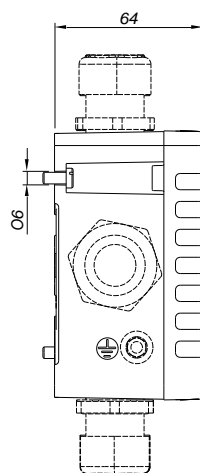
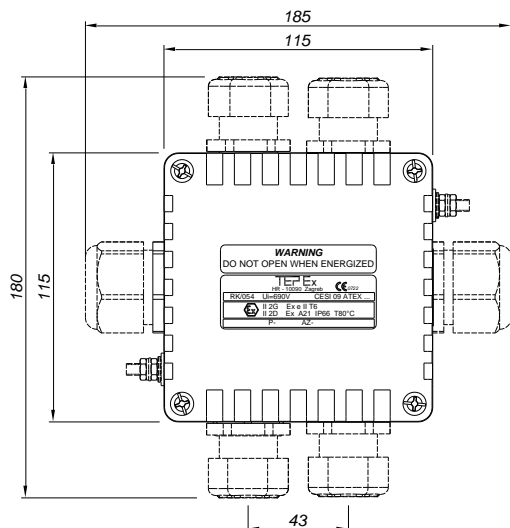
The sign X after the certificate number indicates that the equipment or protective system is subject to specific conditions.

- the cable gland was tested with lower impact energy according to EN 60079-0, therefore it has to be installed in placed with lower risk of impact,
- degree of protection IP66 will be satisfied only when sealing and cable entry fittings are properly fitted, so during the installation manufacturer's instructions must be followed,
- the user shall provide additional clamping of the cable because the clamping test was performed with value of extraction force reduced to 25%



3. TEHNIČKI PODACI

| | | |
|--|--|---|
| Oznaka kategorije i protueksplozijske zaštite uređaja: |   | II 2G Ex eb IIC T6 Gb II 2G Ex ia/ib IIC T6 Gb II 2D Ex tb IIIC T80°C Db |
| Mehanička zaštita: | IP 66 | |
| Klasa zaštite: | I (PE - zaštitno uzemljenje) | |
| Nazivni napon: | 630V | |
| Maksimalni izlazni napon za Ex i: | max. 60V | |
| Maksimalna izlazna struja za Ex i: | max. 1A | |
| Temperatura okoline: | -20°C ≤ T _a ≤ +40°C – T6 -20°C ≤ T _a ≤ +50°C – T6 -20°C ≤ T _a ≤ +55°C – T6 -20°C ≤ T _a ≤ +70°C – T6, za Ex i T _a ≥ -40°C – na zahtjev s specijalnim kablskim uvodnicama i čepovima | |
| Uvodi: | 6 x ISO 25 sukladno EN 62444 | |
| Maksimalna struja stezaljke: | 22 A 18 A 14 A 20 A 16 A 13 A 25 A 20 A 16 A | T _a ≤ 40°C T _a ≤ 50°C T _a ≤ 55°C T _a ≤ 40°C T _a ≤ 50°C T _a ≤ 55°C T _a ≤ 40°C T _a ≤ 50°C T _a ≤ 55°C |
| | | RK 01/744, RK 01/544 RK 01/544-E RK 01/514 RK 01/514-2 RK 01/516 |
| Nazivni presjek stezaljke: | 4 mm ² – RK 01/744, RK 01/544, RK 01/544-E, RK 01/514, RK 01/514-2, RK 01/514 Ex i 6 mm ² – RK 01/516 | |
| Uvodnice i čepovi: | - uvodnica II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db SPU 25 za kabele Ø _v 7-15mm T _a ≥ -20°C, TEPEX - uvodnica II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db BM-SX6C za kabele Ø _v 10-14mm T _a ≥ -40°C, Bimed - uvodnica II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db BM-X6C za kabele Ø _v 13-18mm T _a ≥ -40°C, Bimed - uvodnica za armirane kabele II 2G Ex eb IIC II 2D Ex tb IIIC za kabele Ø _v 13-21mm T _a ≥ -40°C, SIB - čep II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db SPC 25 T _a ≥ -20°C, TEPEX - čep II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db TP-X2C T _a ≥ -40°C, Bimed | |
| Momenti pritezanja: | 0,6 Nm – redna stezaljka 4mm ² 1,2 Nm – redna stezaljka 6mm ² | |
| Masa: | 0,55 kg (prazno kućište bez uvodnica i čepova) | |

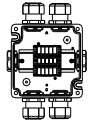
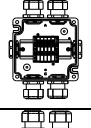
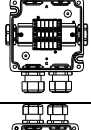
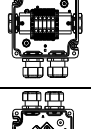
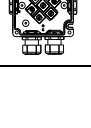
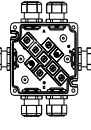
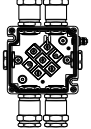
4. DIMENZIJE



3. TECHNICAL DATA

| | | |
|------------------------------------|---|---|
| Category and explosion protection: |   | II 2G Ex eb IIC T6 Gb II 2G Ex ia/ib IIC T6 Gb II 2D Ex tb IIIC T80°C Db |
| Mechanical protection | IP 66 | |
| Class of protection: | I (PE - protective earthing) | |
| Rated voltage: | 630V | |
| Maximum output voltage for Ex i: | max. 60V | |
| Maximum output current for Ex i: | max. 1A | |
| Environment temperature | -20°C ≤ T _a ≤ +40°C – T6 -20°C ≤ T _a ≤ +50°C – T6 -20°C ≤ T _a ≤ +55°C – T6 -20°C ≤ T _a ≤ +70°C – T6, for Ex i T _a ≥ -40°C – on request with specially designed cable glands and plugs | |
| Entries: | 6 x ISO 25 according to EN 62444 | |
| Maximum current of terminals: | 22 A 18 A 14 A 20 A 16 A 13 A 25 A 20 A 16 A | T _a ≤ 40°C T _a ≤ 50°C T _a ≤ 55°C T _a ≤ 40°C T _a ≤ 50°C T _a ≤ 55°C T _a ≤ 40°C T _a ≤ 50°C T _a ≤ 55°C |
| | | RK 01/744, RK 01/544 RK 01/544-E RK 01/514 RK 01/514-2 RK 01/516 |
| Rated cross-section of terminal: | 4 mm ² – RK 01/744, RK 01/544, RK 01/544-E, RK 01/514, RK 01/514-2, RK 01/514 Ex i 6 mm ² – RK 01/516 | |
| Cable entries and cable glands: | - cable gland II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db SPU 25 for cable Ø _v 7-15mm T _a ≥ -20°C, TEPEX - cable gland II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db BM-SX6C for cable Ø _v 10-14mm T _a ≥ -40°C, Bimed - cable gland II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db BM-X6C for cable Ø _v 13-18mm T _a ≥ -40°C, Bimed - cable gland for armored cable II 2G Ex eb IIC II 2D Ex tb IIIC for cable Ø _v 13-21mm T _a ≥ -40°C, SIB - plug II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db SPC 25 T _a ≥ -20°C, TEPEX - plug II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db TP-X2C T _a ≥ -40°C, Bimed | |
| Tightening torque: | 0,6 Nm – terminal 4mm ² 1,2 Nm – terminal 6mm ² | |
| Weight: | 0,55 kg (empty housing without cable glands and plugs) | |

4. DIMENSIONS

| TIP/ TYPE | IZVEDBA/ VERSION | KABELSKE UVODNICE I ČEPOVI / UVODI CABLE GLANDS AND PLUGS / CABLE ENTRIES | BROJ STEZALJKE I NAZIVNI PRESJEK STEZALJKE/ NUMBER OF TERMINALS AND TERMINAL CROSS SECTION | MAX. MOGUĆI PRIKLJUČAK PO STEZALJCI Jednožični, mnogožični, fleksibilni MAX. POSSIBLE CONNECTION BY TERMINAL solid, stranded, flexible |
|----------------|---|--|--|---|
| RK 01/514 |  | 4 x TEPEX SPU 25 cable glands II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db for cable \varnothing_v 7-15 mm and $T_a \geq -20^\circ\text{C}$ or | 5 - 1 x 4mm ² | 2 x 0,5....4mm ² 4 x 0,5....2,5mm ² |
| RK 01/514-2 |  | 4 x Bimed BM-SX6C cable glands II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db for cable \varnothing_v 10-14 mm and $T_a \geq -40^\circ\text{C}$ or | 5 - 1 x 4mm ² | 3 x 0,5....4mm ² 6 x 0,5....2,5mm ² |
| RK 01/514 Ex i |  | 4 x Bimed BM-SX6C cable glands II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db for cable \varnothing_v 13-18 mm and $T_a \geq -40^\circ\text{C}$ or | 5 - 1 x 4mm ² | 2 x 0,5....4mm ² 4 x 0,5....2,5mm ² |
| RK 01/516 |  | 2 x TEPEX SPC 25 plugs $T_a \geq -40^\circ$ II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db or | 5 - 1 x 6mm ² | 2 x 1,5....6mm ² 4 x 1,5....4mm ² |
| RK 01/544 |  | 2 x Bimed TP-X2C plugs $T_a \geq -40^\circ$ II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db or | 5 - 4 x 4mm ² | |
| RK 01/744 |  | 6 x TEPEX SPU 25 cable glands II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db for cable \varnothing_v 7-15 mm and $T_a \geq -20^\circ\text{C}$ or 6 x Bimed BM-SX6C cable glands II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db for cable \varnothing_v 10-14 mm and $T_a \geq -40^\circ\text{C}$ or 6 x Bimed BM-X6C cable glands II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db for cable \varnothing_v 13-18 mm and $T_a \geq -40^\circ\text{C}$ | 7 - 4 x 4mm ² | 4 x 4mm ² 6 x 2,5mm ² 1 x 4mm ² + 2 x 2,5mm ² + +3 x 1,5mm ² 1 x 4mm ² + 5 x 1,5mm ² |
| RK 01/544-E |  | 4 x SIB cable gland for armored cable II 2G Ex db IIC Gb II 2D Ex tb IIIC Db for cable \varnothing_v 13-21 mm and $T_a \geq -40^\circ\text{C}$ or 2 x TEPEX SPC 25 plugs $T_a \geq -40^\circ$ II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db or 2 x Bimed TP-X2C plugs $T_a \geq -40^\circ$ II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db | 5 - 4 x 4mm ² | 2 x 4mm ² + 3 x 2,5mm ² |

6. PREGLED, ODRŽAVANJE, POPRAVAK, OBNAVLJANJE

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

- da su kućište, poklopac i brtva poklopca bez puknuća i oštećenja,
- da su vijci poklopca, uvodnice, čepovi i priključne stezaljke montirani i pritegnuti s 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.

7. 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:

- 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.

8. SKLADIŠTENJE I TRANSPORT

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

9. JAMSTVO PROIZVOĐAČA

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

6. INSPECTION, MAINTENANCE, REPAIR AND OVERHAUL

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

- that the housing, cover and gasket of cover without rupture and damage,
- that the screw of cover, cable glands, plugs and terminal are fastened 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.

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.

8. 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:

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

8. STORAGE AND TRANSPORT

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

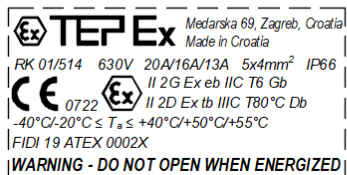
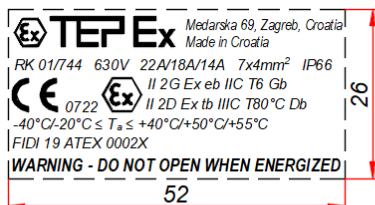
9. MANUFACTURER'S WARRANTY

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.

10. OZNAČAVANJE

Protueksplozijski zaštićena razvodna kutija, tip RK 01/... označena je:

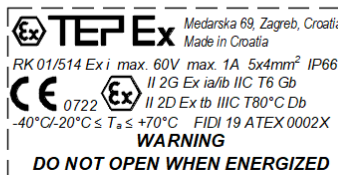
- oznakom (tampon tisak)



10. MARKING

Explosion protected junction box, type RK 01/... are labeled with:

- marking (tampon stamp)



Napomena: razvodna kutija, tip RK 01 / ... na zahtjev, korištenjem odgovarajućih specificiranih uvodnica, moguća je temperatura okoline $T_a \geq -40^\circ\text{C}$.

Note: junction box, type RK 01 / ... on request, used appropriate and specified cable glands, it possible temperature ambient $T_a \geq -40^\circ\text{C}$

Razvodna kutija, tip RK 01 / ... označena je MA brojem na bočnoj stranici kućišta.

Junction box, type RK 01 / ... is labeled with MA number on the side of housing