

Razvodišta / Terminal boxes

SKX 16/E	SKX 16I/E
SKX 18/E	SKX 18I-1/E
	SKX 18I-2/E
SKX 20/E	SKX 20I/E

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.

SADRŽAJ:

1. Namjena.....	2
2. Sukladnost proizvoda.....	2
3. Tehnički podaci.....	3
4. Tablica izvedbi.....	4
5. Tipna oznaka.....	15
6. Montaža.....	15
7. Pregled, održavanje, popravak, obnavljanje.....	16
8. Rezervni dijelovi	16
9. Odgovornost i ovlaštenja.....	17
10. Skladištenje i transport.....	17
11. Jamstvo proizvođača.....	17
12. Označavanje.....	17

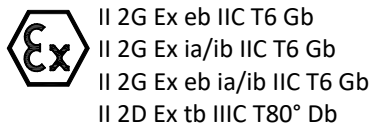
1. NAMJENA

Protueksplozijski zaštićena razvodišta, tip SKX 16/E, SKX 18/E, SKX 20/E, SKX 16I/E, SKX 18I-1/E, SKX 18I-2/E i SKX20I/E namijenjena su za spajanje i razvod vodova i kabela u industrijskim prostorima na mjestima koja su ugrožena potencijalno eksplozivnom atmosferom plinova, para i prašina u zonama opasnosti 1, 2, 21, 22 sukladno normi EN 60079-10-1/-2:2015.

2. SUKLADNOST PROIZVODA

Protueksplozijska zaštita je izvedena u vrstama zaštite „povećana sigurnost“, „samosigurnost“ i „zaštita kućištem“ sukladno normama EN 60079-7:2015, EN 60079-11:2012, EN 60079-31:2014 uz "opće zahtjeve" sukladno normi EN 60079-0:2012 + A11:2013.

Oznaka kategorije i protueksplozijske zaštite uređaja:



Temperatura okoline: -20°C < Tamb < +40°C / +50°C

Mehanička zaštita: IP 66 kategorija 1, sukladno EN 60529+A1

Otpornost na udar: IK 09 sukladno EN 62262

Klasa zaštite: I - zaštitno uzemljenje, unutarnja PE stezaljka i vanjska PA stezaljka kod uporabe metalnih uvodnica za armirane kabele na plastičnim kućištima, sukladno EN 60947-1/A1

Certifikat o ispitivanju tipa: EXA 16 ATEX 0047

Proizvod je sukladan Pravilniku o opremi i zaštitnim sustavima namijenjen za uporabu u potencijalno eksplozivnim atmosferama, NN br. 34/15.

Proizvod je razvijen, proizveden i ispitan prema postojećem stanju tehnike, sukladno normama EN ISO 9001:2008 i EN ISO/IEC 80079-34:2011.

Proizvod je sukladan ATEX Direktivi 2014/34/EU.

Proizvod je sukladan LV Direktivi 2014/35/EU.

Proizvod je sukladan RoHS Direktivi 2011/65/EU.

CONTENTS:

1. Purpose.....	2
2. Product conformity.....	2
3. Technical data.....	3
4. Selection table.....	4
5. Types	15
6. Mounting.....	15
7. Inspection, maintenance, repair and overhaul.....	16
8. Spare parts.....	16
9. Responsibility and authorization.....	17
10. Storage and transport.....	17
11. Manufacturer's warranty.....	17
12. Marking.....	17

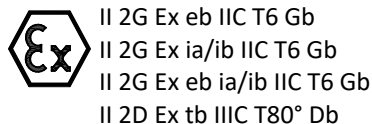
1. PURPOSE

Explosion protected terminal boxes, type SKX 16 / E, SKX 18 / E, SKX 20 / E, SKX 16I / E, SKX 18I-1 / E, SKX 18I-2 / E and SKX20I / E are used for cable connection and distribution in areas with a potentially explosive atmosphere in hazardous areas 1, 2, 21, 22 in accordance with EN 60079-10-1/-2:2015.

2. PRODUCT CONFORMITY

Explosion protection is performed in accordance with "general requirements" in accordance with EN 60079-0:2012 + A11:2013 in the types of protection "increased safety", "intrinsic safety" and "protection by enclosure" in accordance with EN 60079-7:2015, EN 60079-11:2012, EN 60079-31:2014.

Explosion protection marking:



Ambient temperature: -20 ° C < Tamb < + 40 ° C / + 50 ° C

Degree of protection: IP66 category 1 in according to EN 60529 + A1

Impact resistance: IK 09 according to EN 62262

Class of protection: I - protective earth, PE inner terminal and the outer PA terminal when using metal glands for armored cables on terminal boxes, according to EN 60947-1 / A1

Type-examination certificate: EXA 16 ATEX 0047

The product is developed, manufactured and tested according to the existing state of technique, in accordance with EN ISO 9001: 2008 and EN ISO / IEC 80079-34: 2011.

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

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

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

3. TEHNIČKI PODACI

Nazivni napon :	630 V	
Radni napon:	do 630 V	
Maksimalna struja:	do 120 A, prema tablicama dozvoljenih ugradnji	
Nazivni presjek rednih stezaljki:	2,5 mm ² do 50 mm ²	
Maksimalni broj rednih stezaljki za maksimalne struje stezaljki:	prema podacima iz Tablica izvedbi	
PE stezaljke unutar kućišta:	max.2x4 mm ² , jednožični, višezični, mnogožični (s(r), s(s), f)	
Skidanje izolacije na vodiču:	CTS2.5UN, CTS4UN	- 9 mm
	CTS6U, CTS10U	- 12 mm
	CTS16U	- 16 mm
	CTS25U	- 18 mm
	CTS35UN	- 18 mm
	WDU 50N	- 24 mm
Završna stopica:	vodiči sa završnom stopicom sukladno DIN 46228 T1	
Moment pritezanja vijaka redne stezaljke:	CTS2.5UN	- 0,4 Nm
	CTS4UN	- 0,5 Nm
	CTS6U	- 0,8 Nm
	CTS10U	- 1,2 Nm
	CTS16U	- 2,0 Nm
	CTS25U	- 2,0 Nm
	CTS35UN	- 2,5 Nm
	WDU 50N	- 3,5 Nm
Uvodi:	ISO 20 – ISO 63 sukladno EN 62444	
Vijak poklopca:	- vijak kombi M6x30 (Z4) - 4.8A2 - moment pritezanja vijka 1,5Nm - kombi vijak M5x25/10 – Z4 A2 ISO 7045 s podložnom pločicom 4,5 A2 DIN 6905	
Uvodnica:	- ISO 20 – ISO 63 according to EN 62444 - moment pritezanja prema uputama proizvođača	
Površinski otpor:	< 109 Ω	
Energija udara	7 J	
Boja:	crna, RAL 9005 ili INOX (AISI 316L)	
Osnovne mjere (DxŠxV) bez uvodnica:	SKX 16/E	- 255x250x120 mm
	SKX 18/E	- 400x250x120 mm
	SKX 20/E	- 600x250x120 mm
	SKX 16I/E	- 300x200x120 mm
	SKX 18I-1/E	- 400x200x120 mm
	SKX 18I-2/E	- 400x300x120 mm
	SKX 20I/E	- 600x200x120 mm
Montaža:	- vijčanim priborom M6 kroz otvore $\phi 12/\phi 7$ mm u kućištu: SKX 16/E: 235 x 200 mm SKX 18/E: 380 x 200 mm SKX 20/E: 580 x 200 mm -vijčanim priborom M8 preko ušica čeličnog nosača: SKX 16I/E: 325 x 255 mm SKX 18I-1/E: 425 x 255 mm SKX 18I-2/E: 425 x 355 mm SKX 20I/E: 625 x 255 mm	

3. TECHNICAL DATA

Rated voltage:	630 V	
Operating voltage:	up to 630 V	
Maximal current:	up to 120 A, see "Allowed number of terminals"	
Nominal terminal cross-section:	2,5 mm ² up to 50 mm ²	
Maximum terminals number for maximum current:	see chapter "selection table"	
PE terminals inside housing:	max.2x4 mm ² , single-core, multi-core, flexible(s(r),s(s),f))	
Striping length:	CTS2.5UN, CTS4UN	- 9 mm
	CTS6U, CTS10U	- 12 mm
	CTS16U	- 16 mm
	CTS25U	- 18 mm
	CTS35UN	- 18 mm
	WDU 50N	- 24 mm
Ferrules:	Conductor with ferrules according to DIN 46228 T1	
Screw tightening torque:	CTS2.5UN	- 0,4 Nm
	CTS4UN	- 0,5 Nm
	CTS6U	- 0,8 Nm
	CTS10U	- 1,2 Nm
	CTS16U	- 2,0 Nm
	CTS25U	- 2,0 Nm
	CTS35UN	- 2,5 Nm
	WDU 50N	- 3,5 Nm
Cable entries:	ISO 20 – ISO 63 according to EN 60423	
Cover crews:	- combo screw M6x30 (Z4) - 4.8 A2 - screws tightening torque of the 1,5Nm - combo screw M5x25/10 – (Z4) A2 ISO 7045 with plate 4,5 A2 DIN 6905	
Cable glands:	- ISO 20 – ISO 63 according to EN 62444 - tightening torque according to manufacturer instructions	
Surface Resistivity:	< 109 Ω	
Impact energy:	7 J	
Color:	black, RAL 9005 or INOX (AISI 316L)	
Basic dimensions (HxLxW) without cable gland:	SKX 16/E	- 255x250x120 mm
	SKX 18/E	- 400x250x120 mm
	SKX 20/E	- 600x250x120 mm
	SKX 16I/E	- 300x200x120 mm
	SKX 18I-1/E	- 400x200x120 mm
	SKX 18I-2/E	- 400x300x120 mm
	SKX 20I/E	- 600x200x120 mm
Mounting:	- screw accessories M6 through a hole $\phi 12/\phi 7$ mm in the enclosure: SKX 16/E: 235 x 200 mm SKX 18/E: 380 x 200 mm SKX 20/E: 580 x 200 mm -screw accessories M8 through eyelets of the enclosure carrier: SKX 16I/E: 325 x 255 mm SKX 18I-1/E: 425 x 255 mm SKX 18I-2/E: 425 x 355 mm SKX 20I/E: 625 x 255 mm	

4. TABLICA IZVEDBI:

4. SELECTION TABLE:

Strane A,B,C,D kućišta bušene su prema projektu za montažu pripadajućih uvodnica. Tablica daje maksimalni dozvoljeni broj uvoda/uvodnica po strani kućišta, uz napomenu, da je na definiranom mjestu dozvoljeno bušenje svake manje veličine uvoda i montaža svake manje uvodnice.

Terminal box sides A,B,C,D of the enclosure are drilled as required for installation of the associated cable glands. The table gives the maximum number of entries / cable glands on the note that the specified position allowed drilling of each smaller size of the entries/cable glands and installation of every smaller cable glands. Maximum number of cable glands on the enclosure:

Maksimalni broj uvoda/uvodnica po stranici kućišta:

Kućište (Enclosure)	M 20		M 25		M 32		M 40		M 50		M 63	
	A-C	B-D	A-C	B-D	A-C	B-D	A-C	B-D	A-C	B-D	A-C	B-D
MMK 16	10	9	9	7	5	3	3	3	3	2	2	2
MMK 18	17	9	15	7	9	3	6	3	5	2	4	2
MMK 20	24	9	22	7	12	3	8	3	6	2	6	2
MMK 302012	10	9	9	7	5	3	3	3	3	2	2	2
MMK 402012	17	9	15	7	9	3	6	3	5	2	4	2
MMK 403012	17	9	15	7	9	3	6	3	5	2	4	2
MMK 602012	24	9	22	7	12	3	8	3	6	2	6	2

Tablica dopuštenog maksimalnog broja rednih stezaljki i maksimalne struje za pojedini tip razvodništva.

Table of maximum number of terminal blocks and related maximum current for each type of terminal box.

Tablica dozvoljene ugradnje za SKX 16/E, SKX 16I/E:

Table of allowed number of terminals in SKX 16 / E, SKX 16I / E:

SKX 16 / E			
Nazivni presjek vodiča/stezaljki Nominal cross section of conductors / terminals (mm ²)	Najveći broj stezaljki Maximum number of terminals	Temperatura okoline Ta[°C] Ambient temperature Ta[°C]	I _{max} [A]
2,5 / 2,5	70	-20°C do +40 °C	9
2,5 / 2,5	36		13
2,5 / 2,5	4		18
2,5 / 2,5	70	-20°C do +50 °C	8
2,5 / 2,5	36		11
2,5 / 2,5	4		16
4 / 4	61	-20°C do +40 °C	13
4 / 4	30		18
4 / 4	4		26
4 / 4	61	-20°C do +50 °C	11
4 / 4	30		16
4 / 4	4		22
6 / 6	40	-20°C do +40 °C	18
6 / 6	22		26
6 / 6	4		35
6 / 6	40	-20°C do +50 °C	16
6 / 6	22		22
6 / 6	4		31
10 / 10	37	-20°C do +40 °C	26
10 / 10	17		40
10 / 10	4		48
10 / 10	37	-20°C do +50 °C	22
10 / 10	17		34
10 / 10	4		40
16 / 16	27	-20°C do +40 °C	38
16 / 16	15		52
16 / 16	4		65

16 / 16	27	-20°C do +50 °C	32
16 / 16	15		45
16 / 16	4		56
25 / 25	24	-20°C do +40 °C	52
25 / 25	15		65
25 / 25	4		86
25 / 25	24	-20°C do +50 °C	45
25 / 25	15		56
25 / 25	4		74
35 / 35	16	-20°C do +40 °C	65
35 / 35	10		90
35 / 35	4		105
35 / 35	16	-20°C do +50 °C	56
35 / 35	10		80
35 / 35	4		90
50 / 50	14	-20°C do +40 °C	90
50 / 50	4		120
50 / 50	11	-20°C do +50 °C	80
50 / 50	4		105

SKX 16I/E			
Nazivni presjek vodiča/stezaljki Nominal cross section of conductors / terminals (mm ²)	Najveći broj stezaljki Maximum number of terminals	Temperatura okoline Ta[°C] Ambient temperature Ta[°C]	I _{max} [A]
2,5 / 2,5	60	-20°C do +40 °C	9
2,5 / 2,5	30		13
2,5 / 2,5	4		18
2,5 / 2,5	60	-20°C do +50 °C	8
2,5 / 2,5	30		11
2,5 / 2,5	4		16
4 / 4	48	-20°C do +40 °C	13
4 / 4	24		18
4 / 4	4		26
4 / 4	48	-20°C do +50 °C	11
4 / 4	24		16
4 / 4	4		22
6 / 6	36	-20°C do +40 °C	18
6 / 6	18		26
6 / 6	4		35
6 / 6	36	-20°C do +50 °C	16
6 / 6	18		22
6 / 6	4		31
10 / 10	30	-20°C do +40 °C	26
10 / 10	14		40
10 / 10	4		48
10 / 10	30	-20°C do +50 °C	22
10 / 10	14		34
10 / 10	4		40
16 / 16	22	-20°C do +40 °C	38
16 / 16	11		52
16 / 16	4		63
16 / 16	22	-20°C do +50 °C	32
16 / 16	11		45
16 / 16	4		54

25 / 25	18	-20°C do +40 °C	52
25 / 25	11		65
25 / 25	4		80
25 / 25	18	-20°C do +50 °C	45
25 / 25	11		56
25 / 25	4		69
35 / 35	14	-20°C do +40 °C	65
35 / 35	8		90
35 / 35	4		94
35 / 35	14	-20°C do +50 °C	56
35 / 35	8		80
35 / 35	4		82
50 / 50	10	-20°C do +40 °C	90
50 / 50	3		12
50 / 50	10	-20°C do +50 °C	80
50 / 50	3		105

Maksimalni mogući broj rednih stezaljki određenog mjerama kućišta Maximum possible number of terminals definite by enclosure dimensions	36	30	22	18	15	15	10	8
Širina redne stezaljke [mm] Width of single terminal [mm]	5	6	7	10	12	12	15	18,5
Dozvoljeni priključak vodiča na rednu stezaljku Allowed cross-section of conductor for single terminal	1x2.5-1.5 mm ²	1 x4-1.5 mm ²	1 x6-1.5 mm ²	1 x10-2.5 mm ²	1 x16-2.5 mm ²	1 x 25-6 mm ²	1 x 35-6 mm ²	1 x 50-10 mm ²
Širina PE stezaljke [mm] Width of PE terminal [mm]	5	6	7	10	12	12	15	18.5
Širina završne stezaljke [mm] Width of end holder	9							
Prostor za stezaljke na DIN nosaču bez završnih stezaljki Space for terminals on DIN rail without end holders	max. 214 mm							

PE stezaljke i kratkospojne stezaljke ne ulaze u maksimalni dopušteni broj rednih stezaljki.
PE terminals and shorting links are not included in the maximum number of terminal blocks.

Tablica dozvoljene ugradnje za **SKX 18/E, SKX 18I/E, SKX 18/E, SKX 18I-1 and SKX 18I-2/E:**

Table of allowed number of terminals in **SKX 18/E, SKX 18I/E, SKX 18/E, SKX 18I-1 and SKX 18I-2/E:**

SKX 18/E			
Nazivni presjek vodiča/stezaljki Nominal cross section of conductors / terminals (mm ²)	Najveći broj stezaljki Maximum number of terminals	Temperatura okoline Ta[°C] Ambient temperature Ta[°C]	I _{max} [A]
2,5 / 2,5	180	-20°C do +40 °C	9
2,5 / 2,5	64		12
2,5 / 2,5	4		16
2,5 / 2,5	108	-20°C do +50 °C	8
2,5 / 2,5	64		10
2,5 / 2,5	4		14
4 / 4	103	-20°C do +40 °C	12
4 / 4	54		16
4 / 4	4		23
4 / 4	103	-20°C do +50 °C	10
4 / 4	54		14
4 / 4	4		20
6 / 6	83	-20°C do +40 °C	16
6 / 6	40		23
6 / 6	4		34

6 / 6	83	-20°C do +50 °C	14
6 / 6	40		20
6 / 6	4		30
10 / 10	68	-20°C do +40 °C	23
10 / 10	32		34
10 / 10	4		48
10 / 10	68	-20°C do +50 °C	20
10 / 10	32		30
10 / 10	4		42
16 / 16	48	-20°C do +40 °C	34
16 / 16	26		48
16 / 16	4		60
16 / 16	48	-20°C do +50 °C	30
16 / 16	26		42
16 / 16	4		50
25 / 25	40	-20°C do +40 °C	48
25 / 25	26		60
25 / 25	4		80
25 / 25	40	-20°C do +50 °C	42
25 / 25	26		50
25 / 25	4		70
35 / 35	36	-20°C do +40 °C	60
35 / 35	20		80
35 / 35	4		105
35 / 35	36	-20°C do +50 °C	50
35 / 35	20		70
35 / 35	4		90
50 / 50	26	-20°C do +40 °C	80
50 / 50	16		110
50 / 50	4		125
50 / 50	26	-20°C do +50 °C	70
50 / 50	16		95
50 / 50	4		100

SKX 181-1/E i SKX 181-2/E			
Nazivni presjek vodiča/stezaljki Nominal cross section of conductors / terminals (mm ²)	Najveći broj stezaljki Maximum number of terminals	Temperatura okoline Ta[°C] Ambient temperature Ta[°C]	I _{max} [A]
2,5 / 2,5	95	-20°C do +40 °C	9
2,5 / 2,5	55		12
2,5 / 2,5	4		16
2,5 / 2,5	95	-20°C do +50 °C	8
2,5 / 2,5	55		10
2,5 / 2,5	4		14
4 / 4	88	-20°C do +40 °C	12
4 / 4	50		16
4 / 4	4		23
4 / 4	88	-20°C do +50 °C	10
4 / 4	50		14
4 / 4	4		20
6 / 6	75	-20°C do +40 °C	16
6 / 6	36		23
6 / 6	4		34

6 / 6	75	-20°C do +50 °C	14
6 / 6	36		20
6 / 6	4		30
10 / 10	60	-20°C do +40 °C	23
10 / 10	27		34
10 / 10	4		48
10 / 10	60	-20°C do +50 °C	20
10 / 10	27		30
10 / 10	4		42
16 / 16	44	-20°C do +40 °C	34
16 / 16	22		48
16 / 16	4		60
16 / 16	44	-20°C do +50 °C	30
16 / 16	22		42
16 / 16	4		50
25 / 25	34	-20°C do +40 °C	48
25 / 25	21		60
25 / 25	4		80
25 / 25	34	-20°C do +50 °C	42
25 / 25	21		50
25 / 25	4		70
35 / 35	31	-20°C do +40 °C	60
35 / 35	17		80
35 / 35	4		105
35 / 35	31	-20°C do +50 °C	50
35 / 35	17		70
35 / 35	4		90
50 / 50	25	-20°C do +40 °C	80
50 / 50	13		110
50 / 50	4		125
50 / 50	25	-20°C do +50 °C	70
50 / 50	13		95
50 / 50	4		100

Maksimalni mogući broj rednih stezaljki određenog mjerama kućišta Maximum possible number of terminals definite by enclosure dimensions	64	54	40	32	26	26	20	16
Širina redne stezaljke [mm] Width of single terminal [mm]	5	6	7	10	12	12	15	18,5
Dozvoljeni priključak vodiča na rednu stezaljku Allowed cross-section of conductor for single terminal	1x2.5-1.5 mm ²	1 x4-1.5 mm ²	1 x6-1.5 mm ²	1 x10-2.5 mm ²	1 x16-2.5 mm ²	1 x 25-6 mm ²	1 x 35-6 mm ²	1 x 50-10 mm ²
Širina PE stezaljke [mm] Width of PE terminal [mm]	5	6	7	10	12	12	15	18.5
Širina završne stezaljke [mm] Width of end holder	9							
Prostor za stezaljke na DIN nosaču bez završnih stezaljki Space for terminals on DIN rail without end holders	max. 300 mm							

PE stezaljke i kratkospojne stezaljke ne ulaze u maksimalni dopušteni broj rednih stezaljki.
PE terminals and shorting links are not included in the maximum number of terminal blocks.

Tablica dozvoljene ugradnje za SKX 20/E, SKX 20I/E:

Table of allowed number of terminals in SKX 20/E, SKX 20I/E:

SKX 20/E			
Nazivni presjek vodiča/stezaljki Nominal cross section of conductors / terminals (mm ²)	Najveći broj stezaljki Maximum number of terminals	Temperatura okoline Ta[°C] Ambient temperature Ta[°C]	I _{max} [A]
2,5 / 2,5	200	-20°C do +40 °C	6
2,5 / 2,5	126		9
2,5 / 2,5	78		12
2,5 / 2,5	4		16
2,5 / 2,5	126	-20°C do +50 °C	8
2,5 / 2,5	78		10
2,5 / 2,5	4		14
4 / 4	180	-20°C do +40 °C	9
4 / 4	122		12
4 / 4	66		16
4 / 4	4		23
4 / 4	122	-20°C do +50 °C	10
4 / 4	66		14
4 / 4	4		20
6 / 6	98	-20°C do +40 °C	16
6 / 6	48		23
6 / 6	4		34
6 / 6	98	-20°C do +50 °C	14
6 / 6	48		20
6 / 6	4		30
10 / 10	80		-20°C do +40 °C
10 / 10	36	34	
10 / 10	4	48	
10 / 10	80	-20°C do +50 °C	20
10 / 10	36		30
10 / 10	4		42
16 / 16	58		-20°C do +40 °C
16 / 16	29	48	
16 / 16	4	60	
16 / 16	58	-20°C do +50 °C	30
16 / 16	29		42
16 / 16	4		50
25 / 25	46		-20°C do +40 °C
25 / 25	30	60	
25 / 25	4	80	
25 / 25	46	-20°C do +50 °C	42
25 / 25	30		50
25 / 25	4		70
35 / 35	41		-20°C do +40 °C
35 / 35	23	80	
35 / 35	4	105	
35 / 35	41	-20°C do +50 °C	50
35 / 35	23		70
35 / 35	4		90
50 / 50	33		-20°C do +40 °C
50 / 50	18	110	
50 / 50	4	125	

50 /50	33	-20°C do +50 °C	70
50 /50	18		95
50 /50	4		100

SKX 20I/E			
Nazivni presjek vodiča/stezaljki Nominal cross section of conductors / terminals (mm ²)	Najveći broj stezaljki Maximum number of terminals	Temperatura okoline Ta[°C] Ambient temperature Ta[°C]	Imax [A]
2,5 / 2,5	200	-20°C do +40 °C	6
2,5 / 2,5	102		9
2,5 / 2,5	60		12
2,5 / 2,5	4		16
2,5 / 2,5	102	-20°C do +50 °C	8
2,5 / 2,5	60		10
2,5 / 2,5	4		14
4 / 4	180	-20°C do +40 °C	9
4 / 4	96		12
4 / 4	53		16
4 / 4	4		23
4 / 4	96	-20°C do +50 °C	10
4 / 4	53		14
4 / 4	4		20
6 / 6	80	-20°C do +40 °C	16
6 / 6	38		23
6 / 6	4		34
6 / 6	80	-20°C do +50 °C	14
6 / 6	38		20
6 / 6	4		30
10 / 10	65	-20°C do +40 °C	23
10 / 10	29		34
10 / 10	4		48
10 / 10	65	-20°C do +50 °C	20
10 / 10	29		30
10 / 10	4		42
16 / 16	47	-20°C do +40 °C	34
16 / 16	24		48
16 / 16	4		60
16 / 16	47	-20°C do +50 °C	30
16 / 16	24		42
16 / 16	4		50
25 / 25	37	-20°C do +40 °C	48
25 / 25	23		60
25 / 25	4		80
25 / 25	37	-20°C do +50 °C	42
25 / 25	23		50
25 / 25	4		70
35 / 35	33	-20°C do +40 °C	60
35 / 35	18		80
35 / 35	4		105
35 / 35	33	-20°C do +50 °C	50
35 / 35	15		70
35 / 35	4		90

50 /50	26	-20°C do +40 °C	80
50 /50	14		110
50 /50	4		125
50 /50	26	-20°C do +50 °C	70
50 /50	14		95
50 /50	4		100

Maksimalni mogući broj rednih stezaljki određenog mjerama kućišta Maximum possible number of terminals definite by enclosure dimensions	100	86	66	50	40	40	30	26
Širina redne stezaljke [mm] Width of single terminal [mm]	5	6	7	10	12	12	15	18,5
Dozvoljeni priključak vodiča na rednu stezaljku Allowed cross-section of conductor for single terminal	1x2.5-1.5 mm ²	1 x4-1.5 mm ²	1 x6-1.5 mm ²	1 x10-2.5 mm ²	1 x16-2.5 mm ²	1 x 25-6 mm ²	1 x 35-6 mm ²	1 x 50-10 mm ²
Širina PE stezaljke [mm] Width of PE terminal [mm]	5	6	7	10	12	12	15	18,5
Širina završne stezaljke [mm] Width of end holder	9							
Prostor za stezaljke na DIN nosaču bez završnih stezaljki Space for terminals on DIN rail without end holders	max. 500 mm							

PE stezaljke i kratkospojne stezaljke ne ulaze u maksimalni dopušteni broj rednih stezaljki.
PE terminals and shorting links are not included in the maximum number of terminal blocks.

Na rednu stezaljku je dopušten priključak vodiča manjeg nazivnog presjeka s time da se poštuje maksimalni broj stezaljki i maksimalna struja za taj nazivni presjek vodiča/stezaljki prema Tablicama dozvoljenih ugradnji. Nije dopušten priključak dvaju ili više vodiča pod jedan kontakt redne stezaljke bilo da se priključuju direktno, bilo preko zajedničke krajnje stopice. Višeredna montaža rednih stezaljki je dopuštena uz poštivanje tablice dozvoljene ugradnje. Dopuštena je kombinacija više različitih nazivnih presjeka rednih stezaljki/vodiča u jednom kućištu. Moguća kombinacija se izračunava prema tablicama dopuštenih ugradnji na način da se izračunom provjeravaju ukupni maksimalni gubici i fizička mogućnost ugradnje, kako je dano u primjeru:

At each terminal is allowed connection of conductors smaller than nominal cross section taking into account the maximum number of terminals and the maximum current for the nominal conductor size / terminal according to Tables of allowed installation. It is not allowed connection of two or more conductors under one contact of single terminal or connection directly with ferrules. Installation of two or more rows of terminals is allowed taking into account the Table of allowed installation. A combination of several different nominal cross-section terminal blocks / conductors in a single enclosure is allowed. Possible combinations are calculated according to the tables of allowed installation so that the calculation of the total maximum power loss and the possibility of a physical is in accordance with tables of allowed installation, as given in the example:

Primjer: SKX 20/E		-20°C < Tamb < +40°		
Example: SKX 20/E		-20°C < Tamb < +40°		
Presjek [mm²] vodiča i stezaljke Cross-section [mm²] of conductors and terminals	Struja [A] Current [A]	Broj rednih stezaljki Number of terminals	Max. dopušteni br.stezaljki prema tablici dopuštene ugradnje Max.allowed nr. of terminals according to table of allowed installation	Iskorištenost Usage
10	34	10	36	27,8 %
6	16	20	98	20,4 %
4	12	20	122	16,4 %
2,5	9	20	126	15,9 %
Ukupni gubici (Total losses):				80,5 % < 100%

Primjer: SKX 20/E Example: SKX 20/E		-20°C < Tamb < +40° -20°C < Tamb y +40°	
Presjek [mm ²] stezaljke Cross-section [mm ²] of terminals	Broj rednih stezaljki Number of terminals	Max. mogući broj rednih stezaljki prema mjerama kućišta Max. allowed number of terminals according to enclosure dimensions	Iskorištenost Space usage
10	10	36	20,0 %
6	20	98	23,3 %
4	20	122	30,3 %
2,5	20	126	20,0 %
Ukupna iskorištenost (Total space usage):			93,6 % < 100%

5. TIPNA OZNAKA

Razvodište SKX 16/E
Razvodište SKX 18/E
Razvodište SKX 20/E
Razvodište SKX 16I/E
Razvodište SKX 18I-1/E
Razvodište SKX 18I-2/E
Razvodište SKX 20I/E

5. TYPES

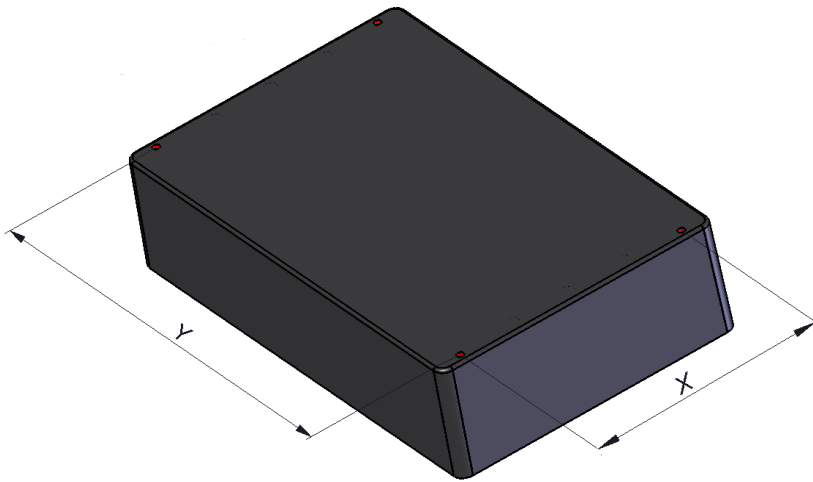
Terminal box SKX 16/E
Terminal box SKX 18/E
Terminal box SKX 20/E
Terminal box SKX 16I/E
Terminal box SKX 18I-1/E
Terminal box SKX 18I-2/E
Terminal box SKX 20I/E

6. MONTAŽA

Montaža razvodišta SKX 16/E, SKX 18/E i SKX 20/E izvodi se:
- učvršćenjem na ravnu podlogu ili zid vijčanim priborom $\phi 12 / \phi 7$ mm na kućištu u vrhovima pravokutnika na danim dimenzijama:

6. INSTALATION

Installation of enclosure SKX 16 / E, SKX 18 / E and SKX 20 / E is performed:
- Fixing on a flat surface or wall with screw accessories $\phi 12 / \phi 7$ mm on housing in the corners of the rectangle to the given dimensions:



Kućište (enclosure)	dimenzije (dimensions)	
	X[mm]	Y[mm]
MMK 16	200	235
MMK 18	200	380
MMK 20	200	580

- vijčanim priborom M8 preko ušica čeličnog nosača

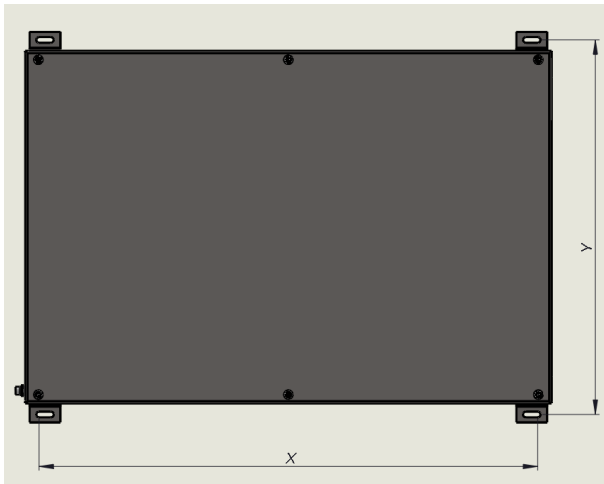
- with assembly kit M8 through eyelets of the steel girders

Montaža razvodišta SKX 16I/E, SKX 18I-1/E, SKX 18I-2/E i SKX 20I/E izvodi se:

- učvršćenjem na ravnu podlogu ili zid vijčanim priborom $\phi 12 / \phi 7$ mm na kućištu u vrhovima pravokutnika na danim dimenzijama:

Installation of enclosure SKX 16I/E, SKX 18I-1/E, SKX 18I-2/E and SKX20I/E is performed:

- Fixing on a flat surface or wall with screw accessories $\phi 12 / \phi 7$ mm on housing in the tops of the rectangle to the given dimensions:



- vijčanim priborom M8 preko ušica čeličnog nosača

- with assembly kit M8 through eyelets of the steel girders

Kućište (enclosure)	dimenzije (dimensions)	
	X[mm]	Y[mm]
MMK 302012	325	255
MMK 402012	425	255
MMK 403012	425	325
MMK 602012	525	255

7. PREGLED, ODRŽAVANJE, POPRAVAK, OBNAVLJANJE

Potrebno je obavljati preglede i održavati sve dijelove uređaja o kojima ovisi protueksplozijska zaštita sukladno normi EN 60079-17+C1, općim i posebnim uputama proizvođača i Pravilnicima korisnika, a naročito:

- da su kućišta i svi dijelovi kućišta bez puknuća i oštećenja
- da su brtve poklopca neoštećene, a vijci na poklopcu pritegnuti nazivnim momentom,
- da su redne stezaljke neoštećene i učvršćene za DIN nosač
- da su vijci priključnih stezaljki pritegnuti nazivnim momentom,
- da su uvodnice i čepovi montirani prema uputama proizvođača i pritegnuti nazivnim momentom, a brtve neoštećene.

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. REZERVNI DIJELOVI

- Brtva poklopca kućišta MMK16, MMK18, MMK 20
- Ex e II uvodnica M20 – M63, komplet
- Ex e II čep M20 – M63, komplet
- EEx e II redna stezaljka - tip: CTS2.5UN, CTS4UN, CTS6U, CTS16U, CTS25U, CTS35UN - siva, plava, zelena CGT4U, CGT4AN, CGT10U, CGT35U - žuto-zelena s krajnjim pločicama
Proizvođač: Connectwell Industries Ltd.
- tip: WDU 50N
Proizvođač: Weidmüller Interface GmbH & Co. KG
- Vijak poklopca – vijak kombi M5x2 (Z4) - 4.8 A2

7. INSPECTION, MAINTENANCE, REPAIR AND OVERHAUL

It is necessary to carry out inspection and maintains of all parts of the equipment on which the explosion protection depends in accordance with EN 60079-17 + C1, general and special instructions of the manufacturer and the Regulations of the user, in particular:

- that the housing and all parts are without rupture and damage
- that the seals of cover are undamaged and screw on the cover fastened nominal torque,
- that the terminals are complete and with no damage and fastened to DIN rail
- that the screw of terminals are tightened nominal torque,
- that the glands and plugs are installed in accordance with manufacturer's instructions and tighten with the nominal torque and that the seal are intact.

Repair and overhaul of enclosure is performed by the manufacturer or by the manufacturer authorized person, only with original parts according to manufacturer instructions, all according to EN 60079-19.

If the repair and / or overhaul is done by a third party all producer responsibility for the product and the warranty and the manufacturer's declaration of conformity becomes invalid.

8. SPARE PARTS

- Cover gasket MMK16, MMK18, MMK 20
- Ex e II cable gland M20 – M63, complete
- Ex e II plug M20 – M63, complete
- EEx e II terminal - tip: CTS2.5UN, CTS4UN, CTS6U, CTS16U, CTS25U, CTS35UN - grey, blue, green CGT4U, CGT4AN, CGT10U, CGT35U - yellow-green with endplates
Manufacturer: Connectwell Industries Ltd.
- type: WDU 50N
Manufacturer: Weidmüller Interface GmbH & Co. KG
- Cover screw – combi screw M5x2 (Z4) - 4.8 A2

9. 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. 34/10.) 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.), tj. EU Direktivi 1999/92/EC (ATEX 137).
- Odgovorna osoba dužna je osigurati njihovo provođenje u pogonu.

10. SKLADIŠTENJE I TRANSPORT

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

11. JAMSTVO PROIZVOĐAČA


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


12. OZNAČAVANJE

Protueksplozijski zaštićeno razvodno SKX 16/E, SKX 18/E, SKX 20/E, SKX 16I/E, SKX 18I-1/E, SKX 18I-2/E i SKX20I/E označena je:


- natpisnom pločicom s tehničkim podacima na poklopcu kućišta i naljepnicom u kućištu s unesenim podacima prema tablicama dozvoljene ugradnje:


SKX 16/E, SKX 18/E, SKX 20/E

		
SKX .../E	IP66	EXA 16 ATEX
630V ... /... A max.	...x... mm ² max.	
II 2G Ex eb IIC T6 Gb II 2G Ex eb ia/ib IIC T6 Gb		
II 2D Ex tb IIIC T80°C Db -20°C<Tamb<+40/+50°C		
MR...	DAT...	KK...

		
SKX .../E	IP66	EXA 16 ATEX
... A	... x 4 mm ² max.	
II 2G Ex ia/ib IIC T6 Gb -20°C<Tamb<+40/+50°C		
MR...	DAT...	KK...

SKX 16I/E, SKX 18I-1/E, SKX 18I-2/E and SKX 20I/E

		
SKX ...I/E	IP66	EXA 16 ATEX
630V ... /... A max.	...x... mm ² max.	
II 2G Ex eb IIC T6 Gb II 2G Ex eb ia/ib IIC T6 Gb		
II 2D Ex tb IIIC T80°C Db -20°C<Tamb<+40/+50°C		
MR...	DAT...	KK...

		
SKX ...I/E	IP66	EXA 16 ATEX
... A	... x 4 mm ² max.	
II 2G Ex ia/ib IIC T6 Gb -20°C<Tamb<+40/+50°C		
MR...	DAT...	KK...

9. 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 ATEX Directive 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 Directive 1999/92/EC (ATEX 137).
- The responsible person shall ensure their implementation at the working facility

10. STORAGE AND TRANSPORT

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

11. 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.

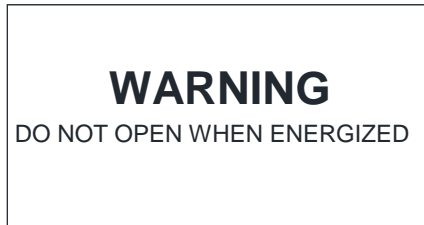
12. MARKING

Explosion protected terminal boxes SKX 16/E, SKX 18/E, SKX 20/E, SKX 16I/E, SKX 18I-1/E, SKX 18I-2/E and SKX 20I/E are marked:

- marking plate with the technical data on the enclosure cover and the label in enclosure with the tables of permitted installation:

- natpisna naljepnica na poklopcu kućišta:

- warning lable on the enclosure cover:



- natpisna pločica za razvodišta sa samosigurnim strujnim
krugovima:

- marking plate for thermal boxes with intrinsically safe circuits:

