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1. MANUFACTURER

TEP Ex d.o.o.
Prilaz dr. Franje Tuđmana 6 HR-49210 ZABOK
Tel: +385 49 222 900
Web: www.tepex.hr

2. GENERAL SAFETY INFORMATIONS**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

3. PURPOSE

Explosion protected installation switches, type SKX-SW/1, SKX-SW/2, SKX-SW/6 are use for on and off light circuits up to 16A in industrial with potentially explosive atmosphere in Zones 1, 2 accordance with EN 60079-10-1:2009.

4. PRODUCT COMPLIANCE

The product is accordance with the standards EN 60598-1:2008 and related standards.

The product is in compliance with Regulations concerning equipment and protective systems for use in potentially explosive atmosphere.

The product complies with the ATEX Directive 94/9 EC and standards:

- EN 60079-0:2012,
- EN 60079-1:2007,
- EN 60079-7:2007.

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



The product is in compliance with the LV Directive 2006/95 EC.

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

The product is in compliance with EMC Directive 2004/108 EC.

The sing X is placed after the certificate number, it indicates that product is subject to specific conditions. The cable glands was tested with lower impact energy and lower extraction force accordance to EN 60079-0:2012, therefore it has to be installed in places with lower risk of impact and additional clamping of the cable.

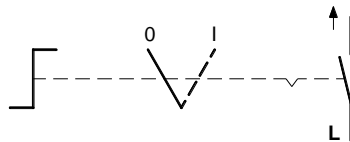
5. DEGREE OF PROTECTION AND TECHNICAL DATA

Certificate:	EXA 15 ATEX 0006X
Marking:	
Category and explosion protection:	 II 2G Ex d e IIC T6 Gb
Ambient temperature:	$-20^{\circ}\text{C} \leq T_a \leq +40/50^{\circ}\text{C}$
Mechanical protection:	IP 54
Resistance to shock:	IK 08
Class of protection:	I (PE - protective earthing)
Rated isolating voltage U_i :	690 V
Rated thermal current I_{th} :	16 A for $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ 15 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
PE terminal within housing:	max. $2 \times 4\text{mm}^2 + 2 \times 2,5\text{mm}^2, 3 \times 4\text{mm}^2, 2 \times 6\text{mm}^2$ – solid, stranded, flexible
Cable entries:	2 x M25 entries with 1 x SPU 25 (Ø_v 7-15mm) and 1 x SPC 25
Screw of cover:	Screw combi M5x25/10 (Z4) – 4.8 A2
Tightening torque:	-screw of cover - 3 Nm, -pressure nut of cable gland – 2,5Nm, -body of Ex e cable gland and plug – 3,5Nm, -screw of terminal pushbutton – 1,2Nm, -nut of operation heads – 2 Nm
Dimension:	128x100x111 mm
Weight:	cca 0,6 kg

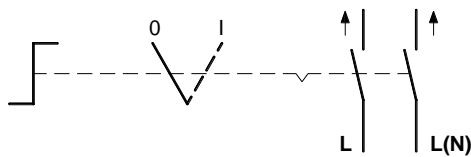
Switching capacity	Rated operating voltage U_e	Rated operating current I_e
AC 5a	230 V	16 A for $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
		15 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
AC 5b	230 V	16 A for $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
		15 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
AC 1	500 V	16 A for $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
		15 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
AC 15	250 V	6 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
	500 V	4 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
DC 13	24 V	6 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
	60 V	0,8 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
	110 V	0,5 A for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$

Wiring diagrams:

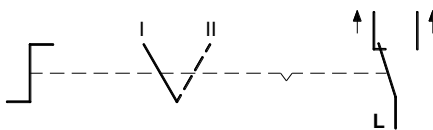
1. On-off switch 1 pole



2. On-off switch 2 pole

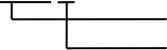


6. Two-way switch



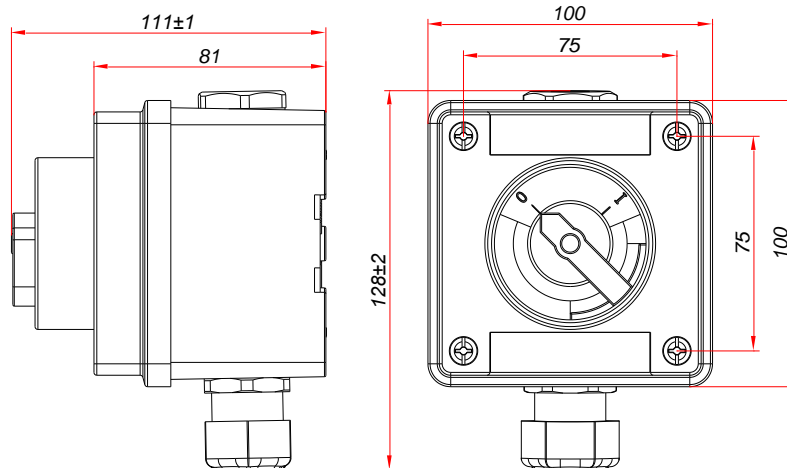
6. TYPE

Installation switches SKX-SW/.



- basic type code:
- type of switches
 - 1- on-off switch 1 pole
 - 2- on-off switch 2 pole
 - 6- two-way switch

7. DIMENSIONS



8. ACTUATORS AND INDICATORS

Operation heads

- type: S6 92 01 and S6 90 02
- manufacturer: CZ Explosion-proof Electric Appliances Co., LTD
- category of explosion protected: II 2 GD Ex e II Ex tD A21 IP66
- examination certificate: DNV-2009-OSL-ATEX-46028U
- production quality assurance notification: DNV-2008-OSL-ATEX-38545Q



Cable glands

- type: SPU 25
- manufacturer: TEP Ex d.o.o., Croatia
- category of explosion protected: II 2G Ex e IIC Gb II 2D Ex tb IIIC Db
- examination certificate: EXA 14 ATEX 0009X



Plug

- type: SPC 25
- manufacturer: TEP Ex d.o.o., Croatia
- category of explosion protected: II 2G Ex e IIC Gb II 2D Ex tb IIIC Db
- examination certificate: EXA 14 ATEX 0009



9. BUILD-IN COMPONENTS

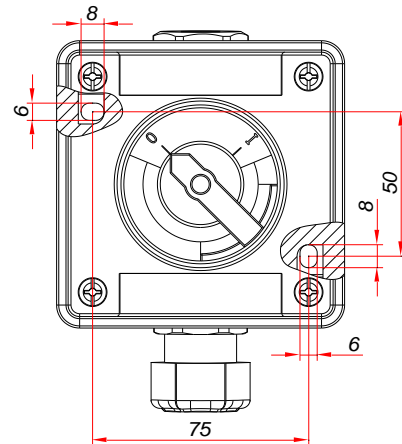
Pushbutton

- type: PBT
- manufacturer: TEP Ex d.o.o., Croatia
- category of explosion protected: II 2G Ex d e IIC Gb I M2 Ex d e I Mb
- examination certificate: EXA 13 ATEX 0033U

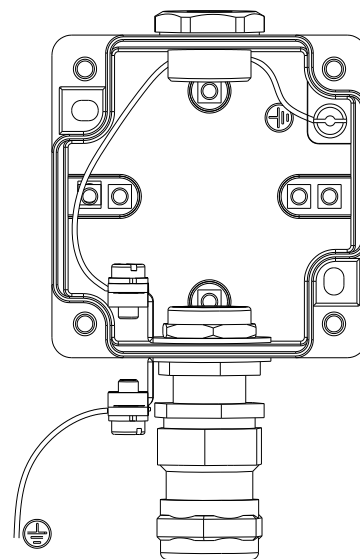


10. MOUNTING

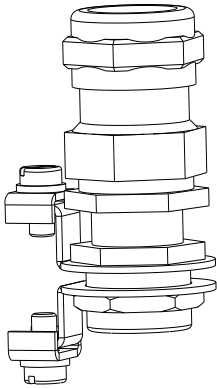
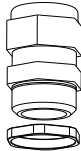
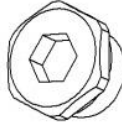
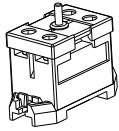
Montage of installation switches is performed by fixing on a flat surface or wall with screw accessories in the tops of the rectangle at given dimensions:



With the introduction of armored cables you need to connect an external ground wire to a metal glands and internal ground of the metal introducer to the PE terminal inside the case.



11. SPARE PART AND ACCESSORIES

Accessories		Spare part	
Metal cable gland for armored cable M25 (cable Ø13-21mm) SET		Ex e cable gland SPU 25	
		Ex e plug SPC 25	
		Pushbutton PBT 01, PBT 02	

12. INSPECTION, MAINTENANCE, REPAIR AND OVERHAUL

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

- that the housing and all part of housing without repute and damage,
- that the gasket of cover is undamaged and cover screw are fastened with nominal torque,
- that the actuators and indicators are undamage and enough fixed for housing and cover and gaskets are undamage,
- that the screw of terminal pushbutton, nut of operation heads, cable glands and plugs 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 60079-19:2011.

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.

13. 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 95)
- 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.

14. STORAGE AND TRANSPORT

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

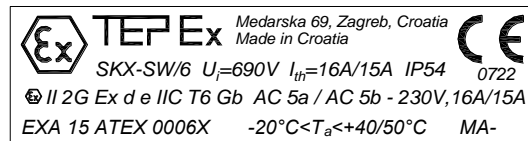
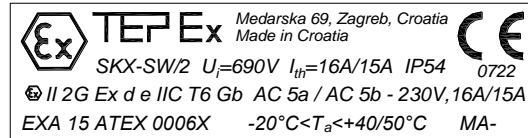
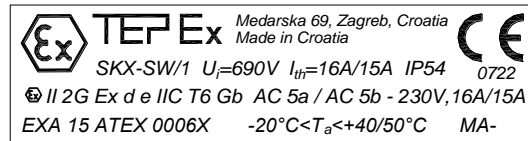
15. MANUFACTURER'S WARRANTY

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.

16. MARKING

Explosion protected installation switches type SKX-SW/1,2,6 are labeled with:

- marking plate with technical data on cover and marking label inside housing:



- warning plate on cover:

