



APPLICATION

The fluorescent light fitting type PSF is intended for use in places with an explosive gas and dust atmosphere. The light fitting is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous zones: 1, 2, 21, 22.

Ex fluorescent light fitting type PSF is used as fluorescent lighting fitting with two T8 (φ26mm), 18/36W - 2G13, fluorescent lamps in parallel configuration.

CONSTRUCTION

Housing: SMC polyester plastic reinforced with glass fiber, color RAL 7038

Diffuser: PC polycarbonate plastic

Gasket: silicone

Central locking: can be opened/closed using a socket key SW8, hinged lamp cover

The light fitting is normally supplied without light sources, with socket key, two Ex e cable glands M25, two Ex e plugs M25 and with four ring screw M8 (pendant version).

TECHNICAL DATA

Certificate:	EXA 13 ATEX 0014
Marking:	CE 0722
Apparatus category:	II 2GD
Marking of explosion protection:	Ex de mb IIC T4 Gb Ex tb IIIC T80°C Db
Ambient temperature:	-20°C ≤ T _a ≤ +50°C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class :	I (protective earthing)
Rated voltage:	220...240 V (±10%)
Frequency:	50/60 Hz
Power factor:	λ=0,95
Ballast lumen factor:	98%
End of life switch:	The electronic ballast, type SMP 07/12 fulfills the requirements according to IEC 61347-2-3 (simulation of the "end of life effect" of fluorescent lamps
Estimated service life:	70 000 h at T _{amb} =40°C
Connecting terminals:	L1, L2, L3, N, PE - max. 2,5 mm2
Cable entry:	Two entries Ex e M25x1,5 for cable diameters Ø6-15 mm, and two Ex e plugs, in accordance with EN 62444
Through wiring:	3 x 2,5 mm ² , max. 16 A, or looping of the cables (entry and exit on one side)
Disconnection of the light:	Switch with safety lock; when opening the central lock, all poles of the voltage supply to the ballast are disconnected; contacts of the switching element are NC contacts, they can only be switched on again when the lamp cover and the central locking system are closed. In case of a lamp fault, the electronic ballast disconnects the defective lamp from the power supply.
Packing:	The packing contains: 1 pcs PSF 236 : 1420x270x210 mm PSF 218 : 825x270x210 mm

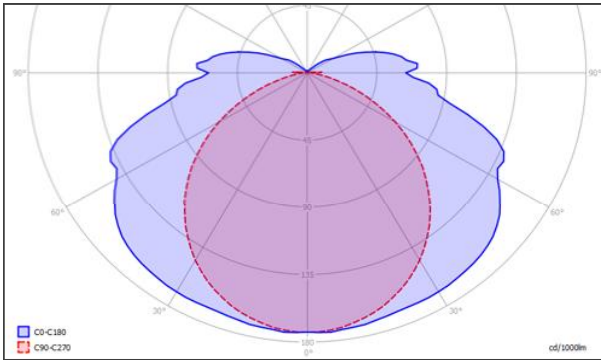
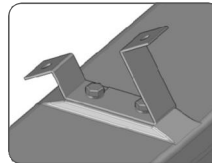
PSF



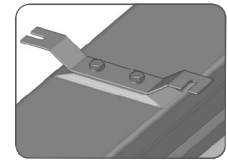
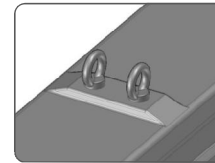
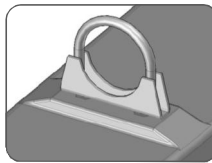
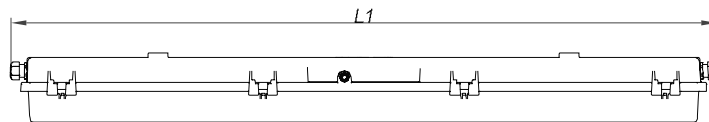
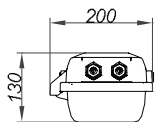
EXA 13 ATEX 0014

**MODEL CODE**

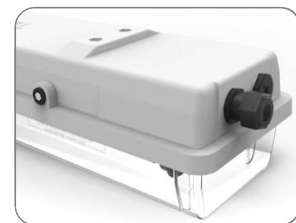
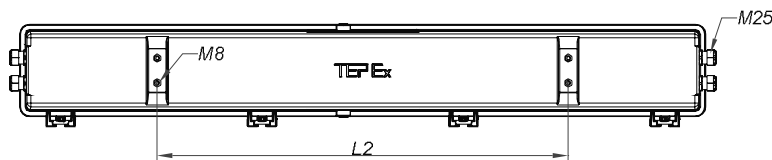
MODEL CODE	WATTAGE	LAMP TYPE	NOMINAL VOLTAGE	LUMINOUS FLUX [lm]	LAMP HOLDER	NOMINAL OPERATIONAL CURRENT	WEIGHT
PSF 218	2x18 W	T8	220 - 240 V	2 x 1350	G13	0,18 A	7,5 kg
PSF 236	2x36 W			2 x 3350		0,33 A	10 kg

POLAR CURVE**MOUNTING**

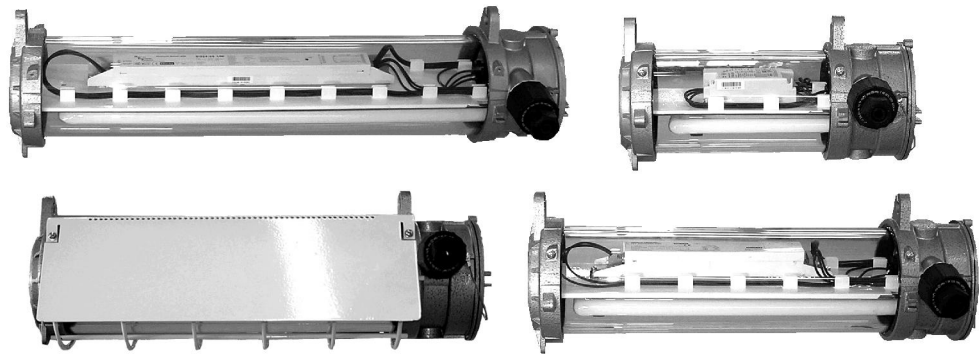
Pendant, on pipe, wall, ceiling

**DIMENSION DRAWING** (all dimensions in mm)

	L1 [mm]	L2 [mm]
PSF 218	750	400
PSF 236	1370	800

**SPARE PARTS AND ACCESSORIES**

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Diffuser PSF	PSF218 10-120 PSF236 20-120		Ex e cable gland SPU 25	SPU 25
	Gasket PSF	PSF218 10-130 PSF236 20-130		Ex e plug M25	SPC 25
	Internal reflector with lamp holder PSF	PSF218 10-140 PSF236 20-140		PSF Ceiling mounting set	PSF 30-110
	El. ballast SMP 07/12	SMP 06/12		PSF Pipe mounting set	PSF 30-120
	Terminals 5x2,5mm ²	PSF236 20-150		PSF Wall mounting set	PSF 30-130
	Socket key SW8	PSF236 20-160		Ring bolt M8	PSF 30-140
				PSF Pendant mounting set	PSF 30-150



APPLICATION

The luminaire is designed to light the industrial areas and facilities, also outdoor spaces with an explosion hazard of gases, vapors and flammable fogs mixed with air.

Hazardous zones: 1, 2, 21, 22.

Ex fluorescent light fitting type FLX is used as fluorescent lighting fitting with two TC-TSE fluorescent compact lamps 18W,24W,36W, 40W, 55W with 2G11 lampholder.

CONSTRUCTION

Housing: corrosion resistant grey polyurethanes painted aluminium color RAL 7000

Diffuser: borosilicate glass tube

Gasket: silicon

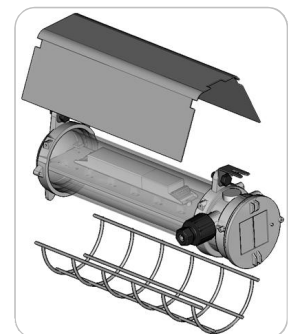
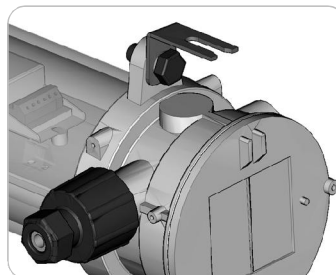
The light fitting is normally supplied with two light sources, two entries M20 and wall/sealing mounting set.

TECHNICAL DATA

Certificate:	CESI 06 ATEX 051-01/09
Marking:	CE 0722
Apparatus category:	II 2GD
Marking of explosion protection:	Ex de IIC T5/T6 Ex d IIC T5/T6 tD A21 T95°C/T80°C
Ambient temperature:	-20°C ≤ T _a ≤ +50°C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class :	I (protective earthing)
Rated voltage:	100 V ÷ 280 V AC/DC
Frequency:	0-60 Hz
Rated power:	See selection table
Power factor:	λ=0,99
Connecting terminals:	L1, L2, L3, N, PE - max. 2,5 mm ² PE for outside earthing max. 2 x 6 mm ²
Cable entry:	2 x M20, according to EN 60079-1, ISO 965-1, ISO 965-3 or 2 x 3/4"NPT, according to ANSI/ASME B1.20.1 or 2 x M20, with one Ex d plugs and one adapter type ADP 03/24, for cable φ6-15 mm
Through wiring:	With two Ex de adapter ADP 03/24 - 4 x 2,5 mm ² , max. 16 A,
Energy classification EEI:	A2
Electromagnetic compatibility:	in conformity with the EMC Directive 2004/108 EC and harmonized standards EN 55015+A1+A2, EN 61547 , EN 61000-3-2+A1, EN 61000-3-3

MOUNTING

Pendant, on pipe, wall, ceiling mounting
Operates in any position.



FLX



CESI 06 ATEX 051

CE 0722

IP 66

2G 11

-20 °C

+40 °C

MODEL CODE**Basic type code****Number of fluorescent tubes in lamp:**

- 1 – one tube
- 2 – two tubes

Nominal wattage of tube:

- 18 - 18 W TC-L
- 24 - 24 W TC-L
- 36 - 36 W TC-L
- 40 - 40 W TC-L
- 55 - 55 W TC-L

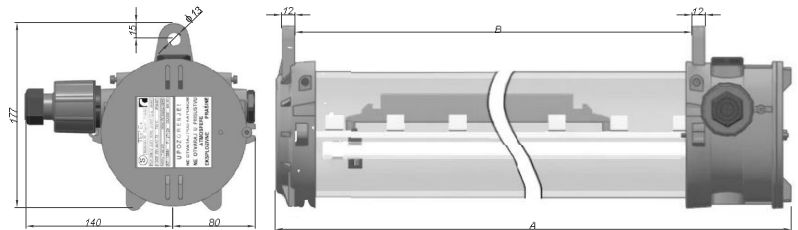
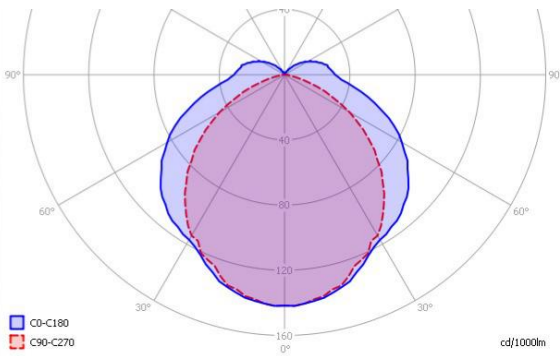
Type of ballast:

- 0 - magnetic ballast with starter (EEI=B2) (only for types FLX .18, FLX .24, FLX .36)
- 1 - electronic ballast with preheat start (EEI=A2)

Type of entries:

- 0 - Ex d threaded cable entries 2x M20, ISO 965-1, ISO 965-3
- 1 - Ex d threaded cable entries 2x 3/4"NPT, ANSI/ASME B1.20.1
- 2 - Ex d cable entries 2x M20, ISO 965-1, ISO 965-3 with one Ex de adapter type ADP 03/24 and one Ex d plug

MODEL CODE	WATTAGE	LAMP TYPE	NOMINAL VOLTAGE	LUMINOUS FLUX [lm]	LAMP HOLDER	A	B	WEIGHT
FLX 218	2x18 W	TC-TSE	100-280 V	2 x 1200	2G11	330	215	3,3 kg
FLX 236	2x36 W			2 x 2900		520	405	5,8 kg
FLX 255	2x55 W			2 x 4700		645	530	8,4 kg

POLAR CURVE**DIMENSION DRAWING** (all dimensions in mm)**SPARE PARTS AND ACCESSORIES**

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Cover gasket FLX	FLX 10-120		Ex d cable gland SPU 20	SPU 20
	Base plate FLX/...	FLX 10-130		Ex d plug M20	SPC 20
	Protective grid FLX set	FLX 20-140		FLX Wall / ceiling mounting set	FLX 20-170
	External reflector FLX	FLX 20-150		FLX Pipe mounting set	FLX 20-180
	Junction box ADP 23	FLX 10-160			



APPLICATION

The fluorescent light fitting type SIF is intended for use in places with an explosive gas and dust atmosphere. The light fitting is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous zones: 1, 2, 21, 22.

Ex fluorescent light fitting type SIF is used as fluorescent lighting fitting with two/four T8 fluorescent lamps in parallel configuration.

CONSTRUCTION

Housing: powder-coated sheet steel , color RAL 9000

Diffuser: flat borosilicate glass with a high thermal and mechanical stability

Gasket: EPDM formed gasket

All-pole are disconnected via NC switch when glass cover is opened.

The light fitting is normally supplied without light sources, two Ex e cable glands M25, one Ex e plug M25 and with two ring screw M8 (pendant version).

TECHNICAL DATA

Certificate:	EXA 13 ATEX 0015
Marking:	CE 0722
Apparatus category:	II 2GD
Marking of explosion protection:	Ex d e mb IIC T4 Gb Ex tb IIIC T80°C Db
Ambient temperature:	$-30^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
Degree of protection:	IP 66 in accordance with EN 60529+A1, category 1
Resistance to shock:	IK 08 in accordance with EN 62262
Protection class :	I (protective earthing) in accordance with EN 60598-1
Rated voltage:	220...240 V ($\pm 10\%$)
Frequency:	50/60 Hz
Power factor:	$\lambda=0,95$
Ballast lumen factor:	97,4%
End of life switch:	The electronic ballast, type SMP 07/12 fulfills the requirements according to IEC 61347-2-3 (simulation of the "end of life effect" of fluorescent lamps)
Estimated service life:	70 000 h at $T_{amb}=40^{\circ}\text{C}$
Connecting terminals:	L1, L2, L3, N, PE - max. 4 mm ²
Cable entry:	Two entries Ex e M25x1,5 for cable diameters $\varnothing 6-15$ mm, and two Ex e plugs, in accordance with EN 62444:2013
Through wiring:	5x terminals 4x4 mm ² , max. 16 A, or looping of the cables (entry and exit on one side)
Disconnection of the light:	Switch with safety lock; when opening the central lock, all poles of the voltage supply to the ballast are disconnected; contacts of the switching element are NC contacts, they can only be switched on again when the lamp cover are closed. In case of a lamp fault, the electronic ballast disconnects the defective lamp from the power supply.
Packing:	The packing contains: 1 pcs 142X415X140 mm

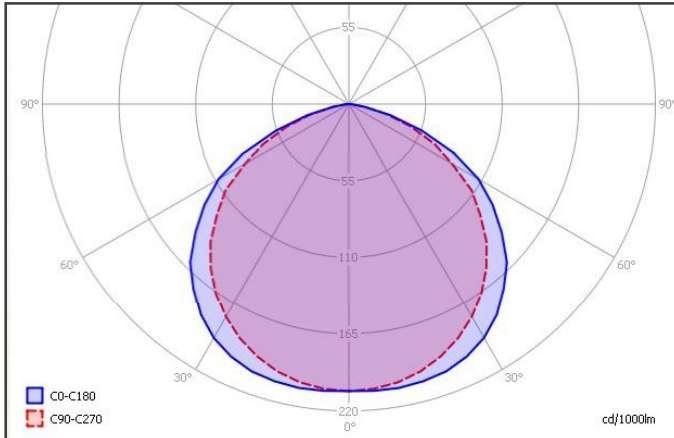
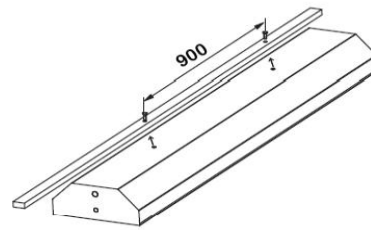
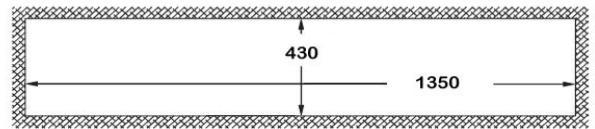
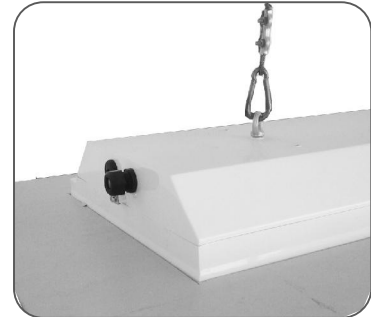
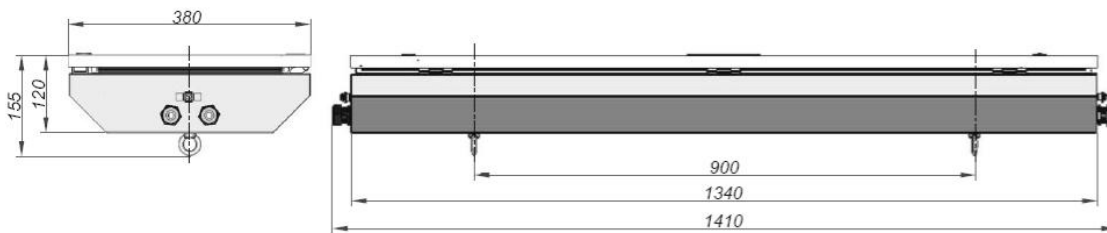


EXA 13 ATEX 0015

CE 0722

**MODEL CODE**

MODEL CODE	WATTAGE	LAMP TYPE	NOMINAL VOLTAGE	LUMINOUS FLUX [lm]	LAMP HOLDER	NOMINAL OPERATIONAL CURRENT	WEIGHT
SIF 236	2x36 W	T8	220 - 240 V	2 x 3350	G13	0,18 A	25 kg
SIF 436	4x36 W			4 x 3350		0,33 A	27 kg

POLAR CURVE**Recessed light fitting****MOUNTING (Pendant, wall/ceiling mounting, recessed)****DIMENSION DRAWING (all dimensions in mm)****SPARE PARTS AND ACCESSORIES**

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Gasket SIF	SIF 10-130		Ex e cable gland SPU 25	SPU 25
	El. ballast SMP 07/12	SMP 06/12		Ex e plug M25	SPC 25
	Ring bolt M8	-			



DESCRIPTION

The emergency fluorescent light fitting type PSF E is intended for use in places with an explosive gas and dust atmosphere. The light fitting is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous zones: 1,2, 21, 22.

Ex fluorescent light fitting type PSF E is used as emergency light fitting with >1,5h or 3h autonomy.

CONSTRUCTION

Housing: SMC polyester plastic reinforced with glass fiber, color RAL 7038

Diffuser: PC polycarbonate plastic

Gasket: EPDM formed gasket

Central locking: can be opened/closed using a socket key SW8, hinged lamp cover

The light fitting is normally supplied without light sources, with socket key, two Ex e cable glands M25, two Ex e plugs M25 and with four ring screw M8 (pendant version).

TECHNICAL DATA

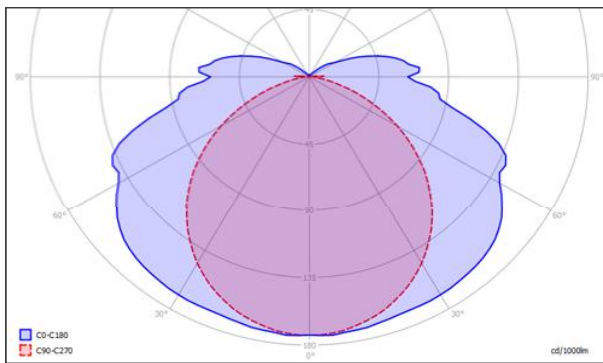
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Marking:	CE0722
Apparatus category:	II 2GD
Explosion protection:	Ex de mb IIC T4 Gb Ex tb IIIC T80°C Db
Ambient temperature:	-20°C ≤ T _a ≤ +40°C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class:	I (procreative earthing)
Rated voltage:	220...240 V (±10%)
Frequency:	50/60 Hz
Power factor:	λ=0,95
Ballast lumen factor BLF:	97,4%
Battery:	PSF 218E - Ni-Mh Saft VHT D, 4,8V 6Ah PSF 236E - Ni-Mh Saft VHT F, 4,8V 10Ah
Nominal autonomy:	1,5 / 3 hours
Emergency modul estimated service life:	70 000 h at T _{amb} =40°C
Terminals:	L1, L2, L3, N, PE - max. 2,5 mm ²
Cable entries:	2 x cable glands Ex e M25x1,5, for cable Ø8-17 mm, 2 x plugs Ex e
Disconnection of the light:	Switch with safety lock; when opening the central lock, all poles of the voltage supply to the ballast are disconnected; contacts of the switching element are NC contacts, they can only be switched on again when the lamp cover and the central locking system are closed. In case of a lamp fault, the electronic ballast disconnects the defective lamp from the power supply.
Piktogram:	300x150mm
Packing:	The packing contains: 1 pcs PSF 236 E : 1420x270x210 mm PSF 218 E : 825x270x210 mm

PSF E

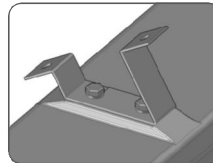
MODEL CODE

TYPE	WATTAGE	LAMP TYPE	NOMINAL VOLTAGE	LUMINOUS FLUX [lm]	LUMINOUS FLUX bat. mod [lm]	LAMP HOLDER	NOMINAL OPERATIONAL CURRENT	WEIGHT
PSF 218 E	2 x 18 W	T8	220-240 V	2 x 1350	1,5h 60% (800lm) 3h 40% (550lm)	G13	0,18 A	9,0 kg
PSF 236 E	2 x 36 W			2 x 3350	1,5h 60% (2000lm) 3h 30% (1000lm)		0,33 A	12,5 kg

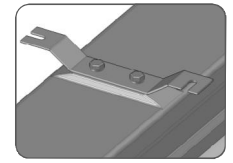
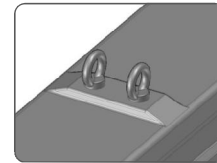
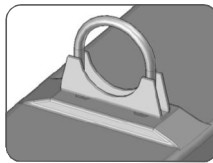
POLAR CURVE



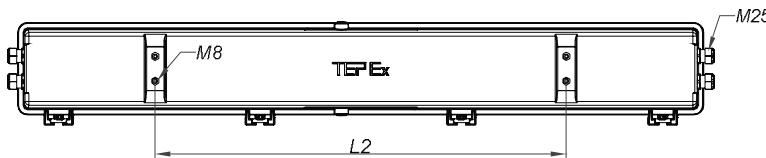
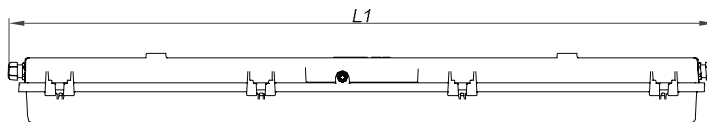
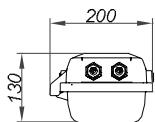
MOUNTING



Pendant, on pipe, wall, ceiling



DIMENSION DRAWING [mm]



	L1 [mm]	L2 [mm]
PSF 218 E	750	400
PSF 236 E	1370	800



SPARE PARTS AND ACCESSORIES

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Diffuser PSF	PSF218 10-120 PSF236 20-120		Ex e cable gland SPU 25	SPU 25
	Gasket PSF	PSF218 10-130 PSF236 20-130		Ex e plug M25	SPC 25
	Internal reflector with lamp holder PSF	PSF218 10-140 PSF236 20-140		PSF Ceiling mounting set	PSF 30-110
	Emergency modul + battery	SMPE 15-1 SMPE 15-2 BATEX 01-1 BATEX 01-2		PSF Pipe mounting set	PSF 30-120
	Terminals 5x2,5mm ²	PSF236 20-150		PSF Wall mounting set	PSF 30-130
	Socket key SW8	PSF236 20-160		Ring bolt M8	PSF 30-140
	Metal cable glands for armoured cable M25 (13-21mm)	PSF 30-160		PSF Pendant mounting set	PSF 30-150



APPLICATION

The LED light fitting type FLXE 118 LED is intended for use in places with an explosive gas and dust atmosphere. The light fitting is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous zones: 1, 2, 21, 22.

Ex light fitting is used as emergency LED light fitting with >3h autonomy.

CONSTRUCTION

Housing: corrosion resistant grey polyurethanes painted aluminium, color RAL 7000

Diffuser: borosilicate glass tube

Gasket: Silicon

The light fitting is normally supplied with two LED sources, two entries M20 and wall/sealing mounting set.

TEST button for testing the emergency light function.

TECHNICAL DATA

Certificate:	EXA 15 ATEX 0001X
Marking:	CE 0722
Apparatus category:	II 2GD
Marking of explosion protection:	Ex d e IIC T6 Gb Ex tb IIIC T80°C Db
Ambient temperature:	-20°C ≤ T _a ≤ +50°C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class :	I (protective earthing)
Rated voltage:	According to „MODEL CODE“
Frequency:	50-60 Hz
Rated power:	2x 1.2W
Lumen output:	network grid power supply / battery power supply : 200 lm
Connecting terminals:	L1, L2, L3, N, PE - max. 2,5 mm ² PE for outside earthing max. 2 x 6 mm ²
Rated autonomy:	> 3 hours
Battery:	Ni-MH 3,6V/2.2Ah, build in light fitting, microprocessor controlled charging, discharging and control of battery
Recharging time:	24 hours (20 hours >90% rated autonomy)
Cable entry:	2 x M20, according to EN 60079-1, ISO 965-1, ISO 965-3 or 2 x 3/4"NPT, according to ANSI/ASME B1.20.1 or 2 x M20, with one Ex d plugs and one adapter type ADP 03/24, for cable φ6-15 mm
Through wiring:	With two Ex de adapter ADP 03/24 - 4 x 2,5 mm ² , max. 16 A,
Energy classification EEI:	A2
Electromagnetic compatibility:	in conformity with the EMC Directive 2004/108 EC and harmonized standards EN 55015+A1+A2, EN 61547, EN 61000-3-2 +A1+A2, EN 61000-3-3

MOUNTING

Pendant, on pipe, wall, ceiling mounting

Operates in any position.



MODEL CODE

FLXE 118 LED

Emergency description (pictogram)
in accordance with DIN 4844

0	With red tape	5	
1		6	
2		7	
3		8	
4			

Rated voltage:

- 0 ... 24 V AC/DC
- 1 ... 60 V AC/DC
- 3 ... 110 - 127 V AC/DC
- 4 ... 220 - 240 V AC/DC

Cable entry:

- 0 ... Ex d cable entry 2 x M20x1,5, ISO 965-1, ISO 965-3
- 1 ... Ex d cable entry 2 x 3/4" NPT, ANSI/ASME B1.20.1
- 2 ... Ex de adaptera ADP 24 (for cable 6-15mm)
- 3 ... 2x Ex de adaptera ADP 24 (for cable 6-15mm) through wiring

The lamp can operate with two types of connection:

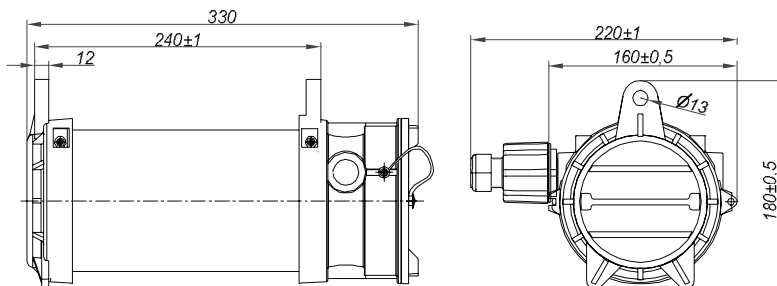
a) Maintained (Dauerschaltung)

The light fitting can be used for general and orientation lighting with mains power supply via L' (installation switch). In case of voltage drop or an interruption in the mains power supply L, the light fitting will continue to operate in battery-powered mode, regardless of the status of installation switch L' (ON/OFF).

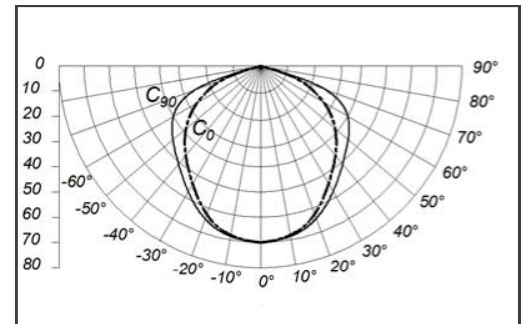
b) Non maintained (Bereitschaftschaltung)

In case of voltage drop or an interruption in the mains power supply L, the light fitting will operate only in battery-powered mode. In both types of the connection in the presence of continuous phase L, it is possible to verify the correctness of the emergency system by turning on the switch in the TEST circuit.

DIMENSION DRAWING (all dimensions in mm)

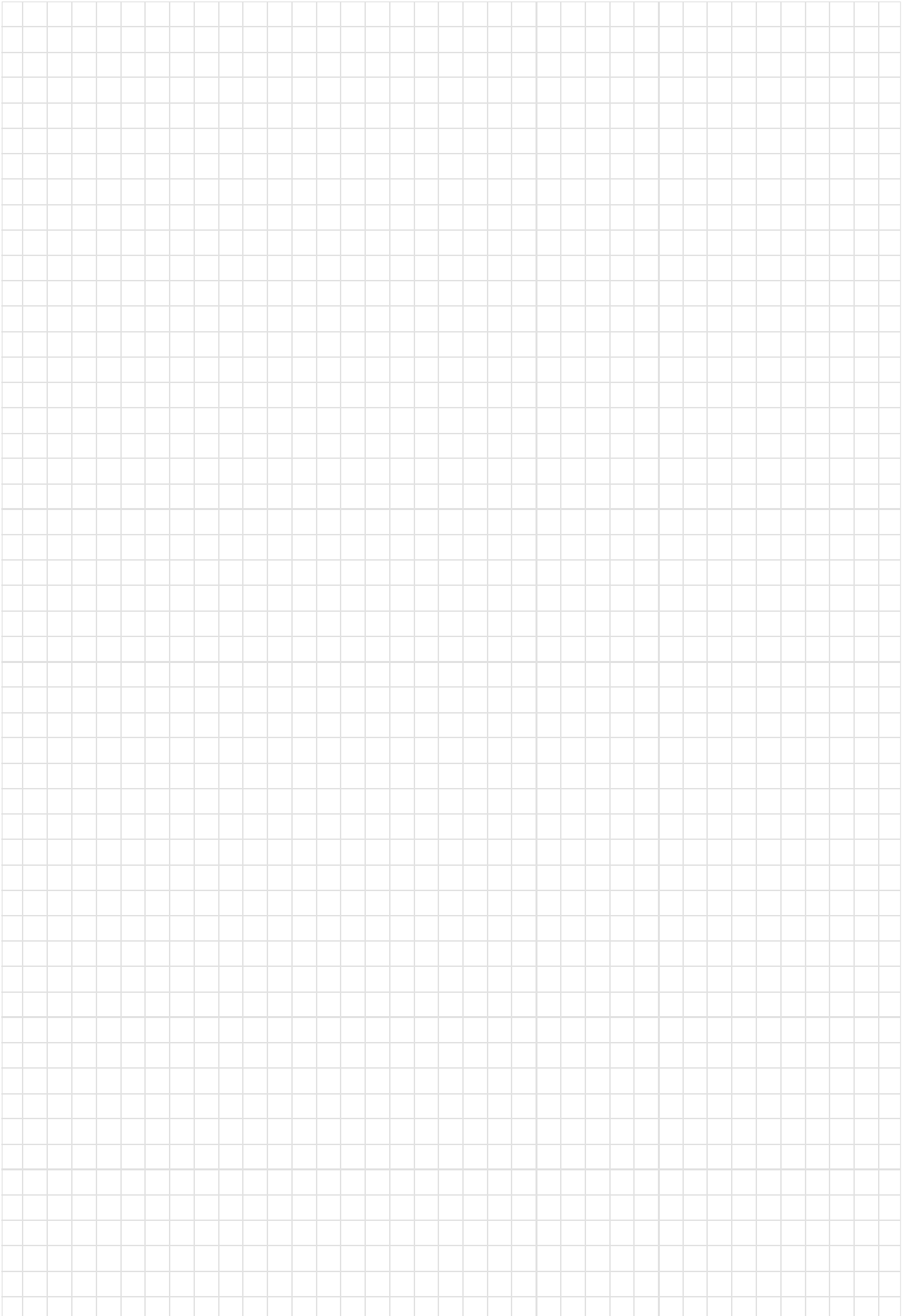


ISOCANDELA CURVE [I/cd]



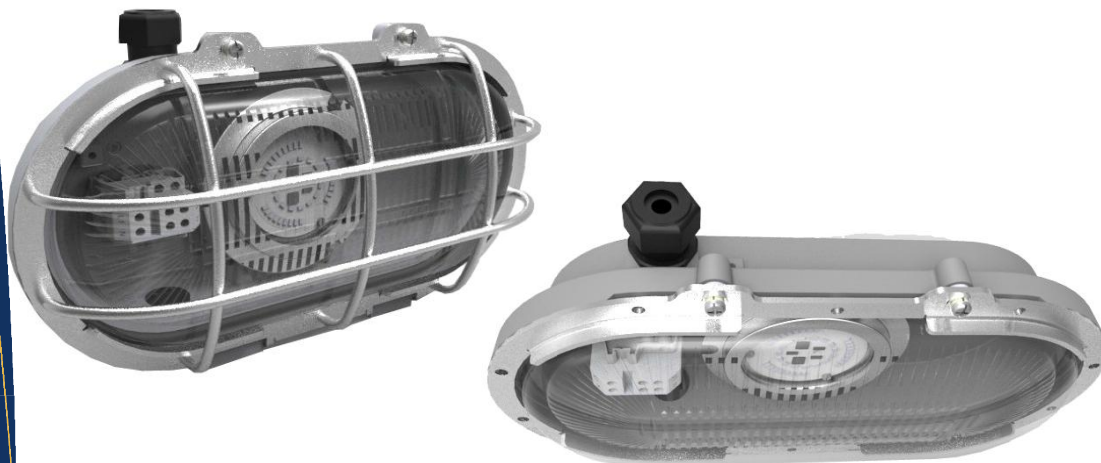
SPARE PARTS AND ACCESSORIES

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Cover gasket FLXE	FLXE10-120		Ex d cable gland SPU 20	SPU 20
	Base plate FLXE/...	FLXE10-130		Ex d plug M20	SPC 20
	Protective grid FLXE set	FLXE20-140		FLXE Wall / ceiling mounting set	FLXE20-170
	External reflector FLXE	FLXE20-150		FLXE Pipe mounting set	FLXE20-180
	Junction box ADP 24	ADP10-160			





LED LIGHT FITTINGS



APPLICATION

The bulkhead light fitting type 0403.24 LED is intended for use in places with an explosive gas and dust atmosphere. The light fitting is designed for use in the industrial areas and facilities, indoor and outdoor spaces.
Hazardous zones: 1, 2, 21, 22.

CONSTRUCTION

Housing: aluminium powder painted casting
Diffuser: borosilicate glass protected with steel grid

TECHNICAL DATA

Certificate:	In progress
Marking:	CE 0722
Apparatus category:	II 2GD
Marking of explosion protection:	Ex e mb IIC T5 Gb Ex tb IIIC T80°C Db
Ambient temperature:	-30°C ≤ Ta ≤ +40°C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class :	I (protective earthing) in accordance with EN 60598-1
Rated voltage:	230V
Frequency:	50Hz (60Hz on request)
Rated power:	20 W
Cable entries:	1 x M25x1.5 cable gland (through-wiring possible) 1 x M25x1.5 plug
Connecting terminals:	terminals L1 + N for 2 x 4 mm ² flexible/solid terminals PE for 2 x 4 mm ² flexible/solid tightening torque for screw clamp 2,2 Nm
Weight:	4,0 kg
Packing:	The packing contains: 1 pcs 360x240x205 mm

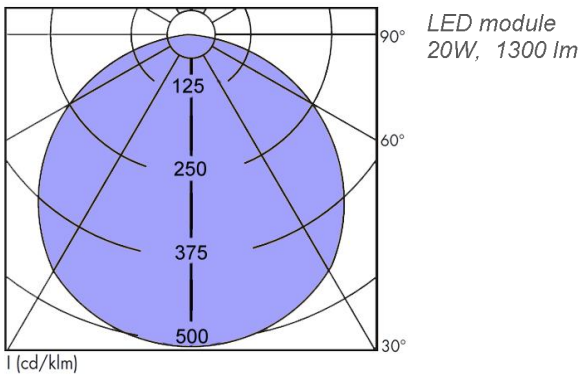
MOUNTING

Two brackets with two screws M6.

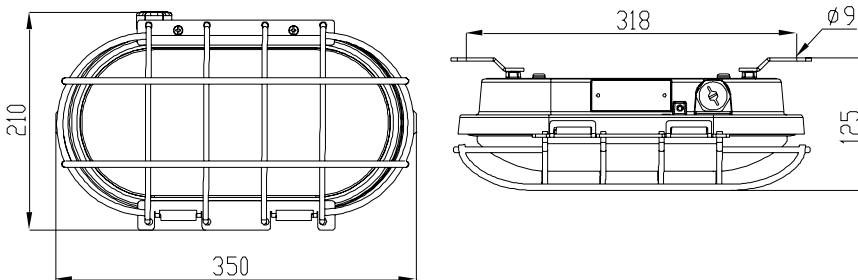
MODEL CODE

MODEL CODE	WATTAGE LED module	NOMINAL VOLTAGE	LUMINOUS FLUX [lm]	TEMPERATURE CLASS (gas)	
				T _a =40°C	T ₀ MAX (dust) T _a =40°C
0403.24 LED 20-1 transparent glass	20 W	230V	1300	T6	80°C
0403.24 LED 20-2 green glass					
0403.24 LED 20-3 red glass					

POLAR CURVE



DIMENSION DRAWING (all dimensions in mm)



SPARE PARTS AND ACCESSORIES

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Ex LED module	0403.24 LED 10-110		Ex e cable gland M25	SPU 25
	Gasket 0403.24 LED	0403.24 LED 10-120		Ex e plug M25	SPC 25
	Replacement glass	0403.24 LED 10-130			



APPLICATION

The pendant light fitting type PLFM LED is intended for use in places with an explosive gas and dust atmosphere. The light fitting is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous zones: 1, 2, 21, 22.

CONSTRUCTION

Housing: aluminium powder painted casting

Diffuser: borosilicate glass

Accessories: protected galvanized steel gird (INOX on request), assembly kit for wall, pipe and ceiling mounting

TECHNICAL DATA

Certificate:	EXA 14 ATEX 0056X
Marking:	CE 0722
Apparatus category:	II 2GD
Marking of explosion protection:	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> </div> <div> II 2G Ex d e IIC T6-T3 Gb II 2G Ex d IIC T6-T3 Gb II 2D Ex tb IIIC T80°C/T155°C Db </div> </div>
Ambient temperature:	$-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class :	I (protective earthing)
Rated voltage:	See selection table
Frequency:	50Hz (60Hz on request)
Rated power:	See selection table
Cable entries:	two entries M20
Connecting terminals:	L, N, PE; max. 2 x 2,5 mm ² solid, flexible terminal for external -PA connection; max 2x6 mm ² tightening torque for screw clamp 2,2 Nm
Cable gland and plug:	one Ex d plug and one Ex de adapter, type ADP 03/23, for cable ϕ_v 6-15 mm
Weight:	3,4 kg
Packing:	The packing contains: 2 pcs 440x260x170mm

MOUNTING

Pendant, on pipe, wall, ceiling



EXA 14 ATEX 0056X

CE 0722

IP 66



E 27

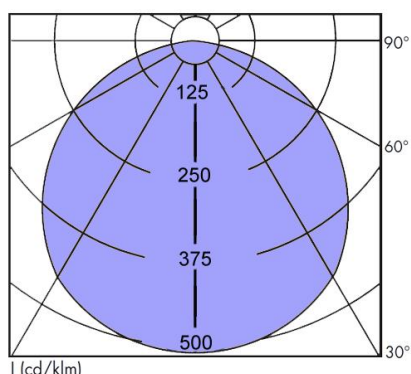
-20°C

+40°C

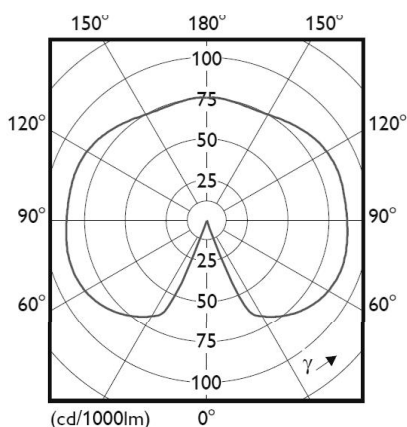
MODEL CODE

MODEL CODE	WATTAGE	LAMP TYPE	NOMINAL VOLTAGE	LUMINOUS FLUX [lm]	TEMPERATURE CLASS (gas)	
					T _a =40°C	T ₀ MAX (dust) T _a =40°C
PLFM 100/3-	12 W Osram	E27 LED	230V	810	T6	80°C
	13 W Philips			1055		
PLFM 20 LED	20 W	LED MODUL	230V	1300		

POLAR CURVE

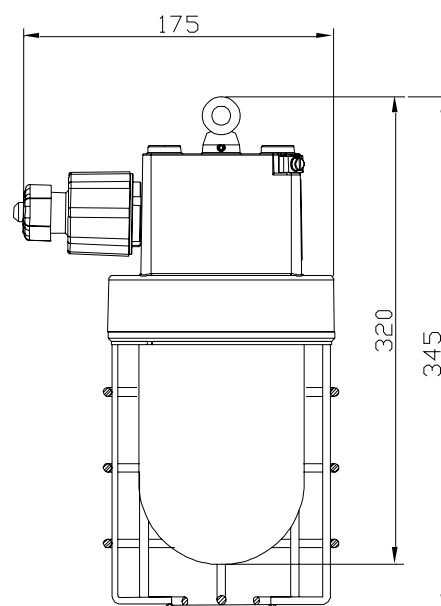


Vossloh-Schwabe
LED module
20W, 1300 lm



Master LEDbulb Osram
12W, 800 lm

DIMENSION DRAWING (all dimensions in mm)



SPARE PARTS AND ACCESSORIES

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Replacement glass PLFM	PLFM 10-120		Ex e cable gland M25	SPU 25
	Wire guard PLFM	PLFM 10-130		Ex e plug M25,	SPC 25
	Gasket PLFM	PLFM 10-140		LED Light bulb	According to type table
	PLFM LED module, set	PLFM 10-170		PLFM fixing bracket for tube R2"	PLFM 20-120
	Junction box ADP 23	PLFM 20-110		PLFS-T mounting bracket (ceiling mounting)	PLFM 20-130
				PLFS-T mounting bracket (wall mounting)	PLFM 20-140



APPLICATION

The pendant light fitting type PLFS LED is intended for use in places with an explosive gas and dust atmosphere. The light fitting is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous zones: 1,2, 21, 22.

CONSTRUCTION

Housing: aluminum powder painted casting

Diffuser: borosilicate glass

Accessories: protected galvanized steel gird, assembly kit for wall, pipe and ceiling mounting

Gasket: silicon

LED components: LED-Bridgelux, LED-BJB, LED driver-MW, TI-Amasan

TECHNICAL DATA

Certificate:	EXA 14 ATEX 0028
Marking:	CE 0722
Apparatus category:	II 2G II 2D
Marking of explosion protection:	Ex II 2G Ex d e IIC T6/T5 Gb II 2D Ex tb IIIC T80°C/T85°C Db
Ambient temperature:	-40°C ≤ Ta ≤ +50°C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class :	I (protective earthing)
LED driver:	With OVP, OCP, OTP protection An autonomous activation after recovery
Rated voltage:	90 - 305 V AC 127 - 130 V DC
Frequency:	50/60 Hz
Rated power:	50W
Power factor:	cos φ > 0,96
Nominal luminous flux:	5000 lm, at t _{amb} =25 °C
Average lifetime :	70 000 hours
Cable entries:	2 x M25x1.5 - ISO 25
Connecting terminals:	L1, L2, L3, N; max. 2 x 2,5 mm ² solid, flexible PE terminal ; max 2x6mm ² External PA terminal -PA; max 2x6mm ²
Cable glands and plugs:	1x cable gland ISO 25 (for cable φ 6-15mm) 1x plug ISO 25
Waight:	6,8 kg
Packing:	The packing contains: 3 pcs 610x390x280 mm



EXA 14 ATEX 0028

CE 0722

IP 66



-40 °C

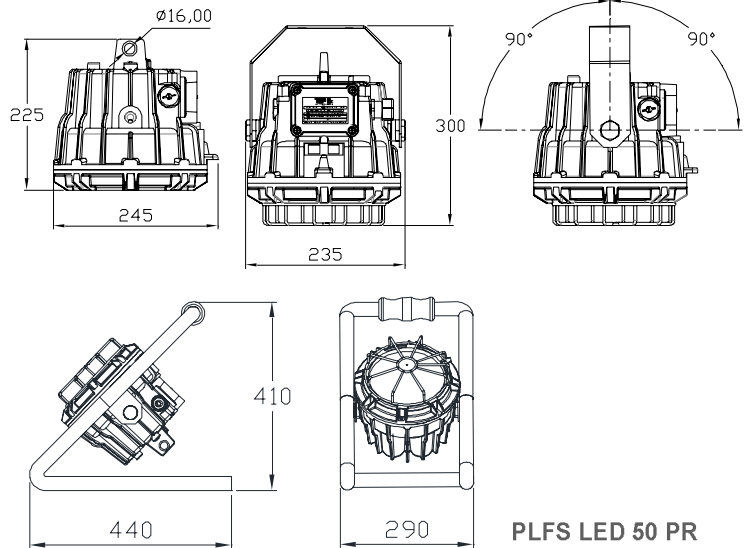
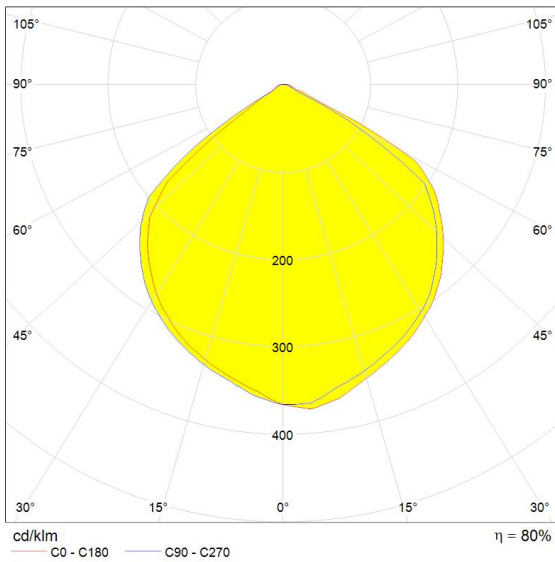
+50 °C

MODEL CODE

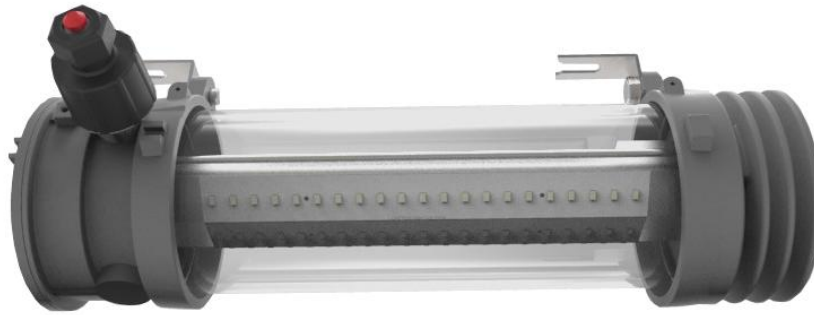
TYPE	WATTAGE	LUMINOUS FLUX [lm] $t_{amb}=25^{\circ}\text{C}$	AMBIENT TEMP.	CRI The color rendering index	CCT (Correlated color temperature) [K]
PLFS LED 50	50 W	5000	-40°C ÷ 50°C	80	4500

MOUNTING

Pendant, on pipe, wall, ceiling mounting

POLAR CURVE**DIMENSION [mm]****SPARE PARTS AND ACCESSORIES**

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Replacement glass PLFS LED	PLFS LED 10-120		Ex e cable gland M25	SPU 25
	Wire guard PLFS LED	PLFS LED 10-130		Ex e plug M25,	SPC 25
	Cover Exe PLFS	PLFS 10-150		PLFS-T fixing bracket for tube R 1 1/2"	PLFS 20-120
	External reflector PLFS	PLFS 20-100		PLFS-T mounting bracket (ceiling and wall mounting)	PLFS 20-130



APPLICATION

The LED light fitting type FLX 310 LED is intended for use in places with an explosive gas and dust atmosphere. The light fitting is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous zones: 1, 2, 21, 22.

CONSTRUCTION

Housing: corrosion resistant grey polyurethanes painted aluminium, color RAL 7000

Diffuser: borosilicate glass tube

Gasket: Silicon

The light fitting is normally supplied with three LED linear sources, two entries M20 and wall/sealing mounting set.

TECHNICAL DATA

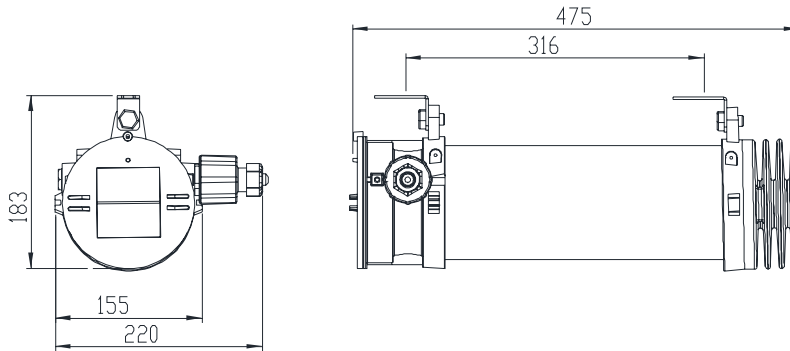
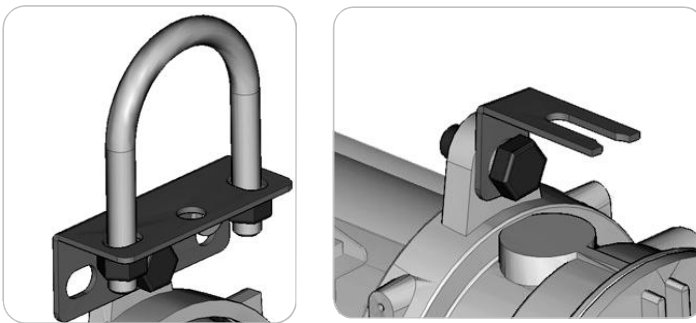
Certificate:	EXA 15 ATEX 0050X
Marking:	CE 0722
Apparatus category:	II 2GD
Marking of explosion protection:	Ex d e IIC T6 Gb Ex tb IIIC T80°C Db
Ambient temperature:	-20°C ≤ T _a ≤ +50°C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class :	I (protective earthing)
Rated voltage:	220-240 V 110V on request
Frequency:	50-60 Hz
Power factor:	λ=0,99
Rated power:	3x 10W
Lumen output:	3000 lm
Maximum number of light fittings connection in line	Suitable for linear lighting up to 20 modules
Connecting terminals:	L1, L2, L3, N, PE - max. 2,5 mm ² PE for outside earthing max. 2 x 6 mm ²
Cable entry:	2 x M20, according to EN 60079-1, ISO 965-1, ISO 965-3 or 2 x 3/4"NPT, according to ANSI/ASME B1.20.1 or 2 x M20, with one Ex d plugs and one adapter type ADP 03/24, for cable φ6-15 mm
Through wiring:	With two Ex d e adapter ADP 03/24 - 4 x 2,5 mm ² , max. 16 A,
Weight:	7 kg
Packing:	The packing contains: 1 pcs 540x230x200 mm



EXA 15 ATEX 0050X

**MODEL CODE**

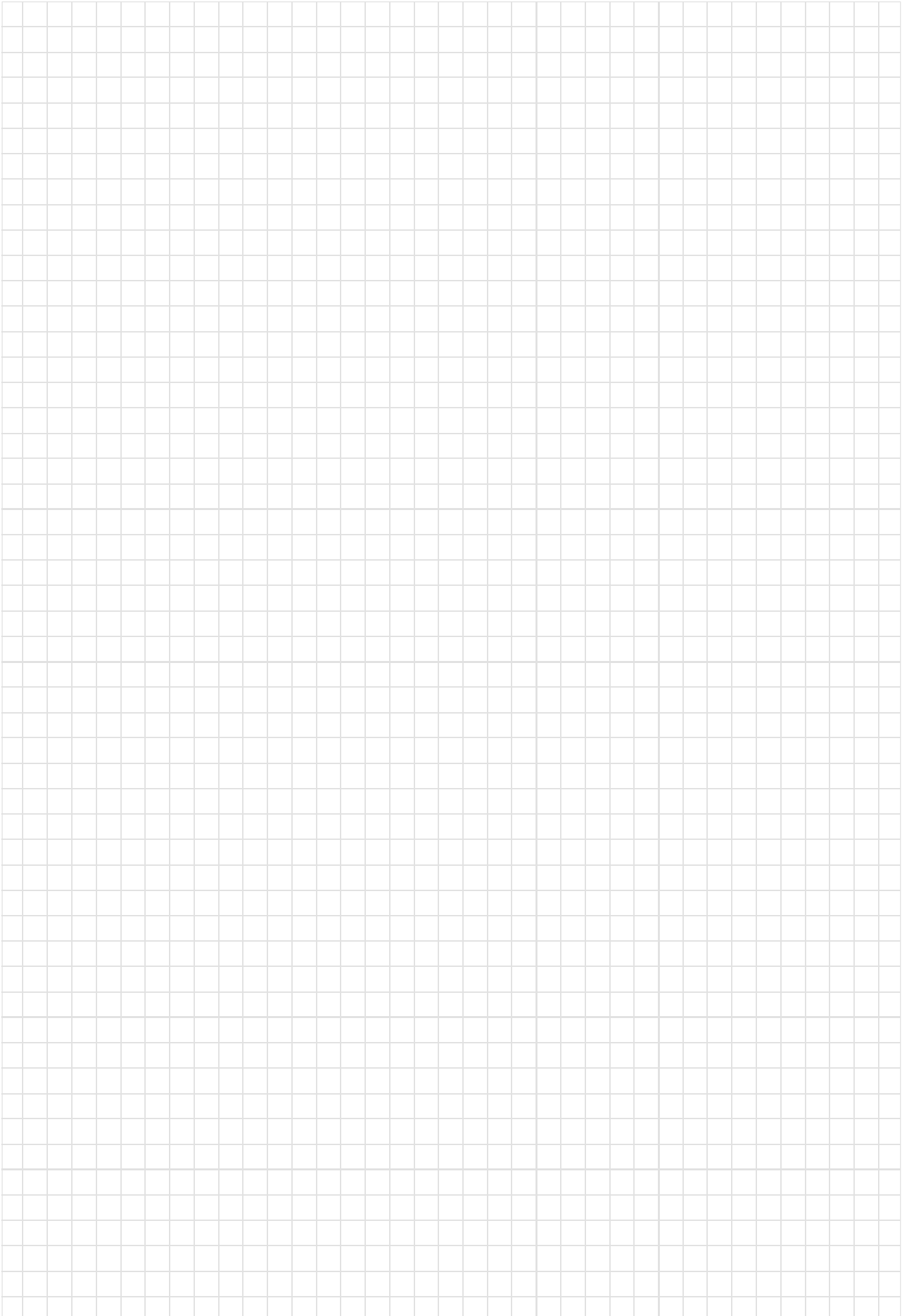
TYPE	WATTAGE	LUMINOUS FLUX [lm] $t_{amb}=25^{\circ}\text{C}$	AMBIENT TEMP.	CRI The color rendering index	CCT (Correlated color temperature) [K]
FLX 310 LED	3x 10W	3x 1010	-20°C ÷ 40°C	>80	4000

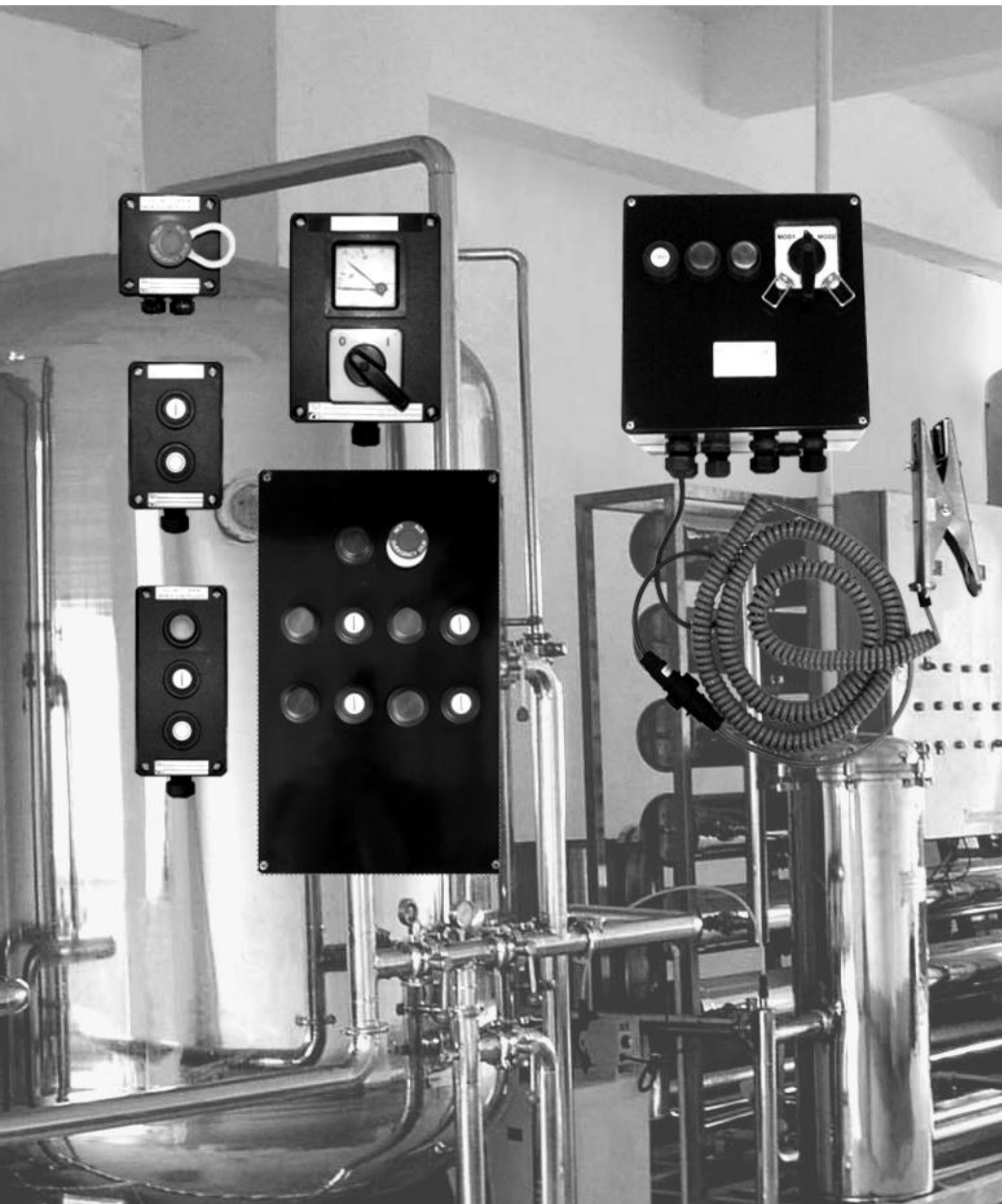
DIMENSION DRAWING (all dimensions in mm)**MOUNTING**

Pendant, on pipe, wall, ceiling mounting
Operates in any position.

SPARE PARTS AND ACCESSORIES

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Cover gasket FLX	FLX10-120		Ex d cable gland SPU 20	SPU 20
	Base plate FLX 310	FLX LED10-310		Ex d plug M20	SPC 20
	Protective grid FLX set	FLX 20-140		FLX Wall / ceiling mounting set	FLX 20-170
	External reflector FLX	FLX 20-150		FLX Pipe mounting set	FLX 20-180
	Junction box ADP 24	ADP10-160			





**CONTROL UNITS
GROUNDING CONTROL DEVICE**



APPLICATION

Explosion protected control units type SKX 12 – SKX 15, alone or in various combinations of merged set (combination) are intended for the control, distribution and signaling in the power circles in places with an explosive gas and dust atmosphere. Control units are designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous areas 1, 2, 21, 22.

CONSTRUCTION

Enclosure: polyester plastic reinforced with glass fiber, color - black

Cover: with integrated Thermoplastic elastomer gasket, closes with four M5 stainless steel screws.

Due to the four available sizes and the modular design, the devices can be used for almost every application. Built-in components, actuators and indicator components can be mounted in or on Ex e enclosures or combination of merged enclosures. Possible combinations and schedules built-in components, actuators and indicator components is determined by the certification documentation. Control units usually aren't wired.

TECHNICAL DATA

Certificate:	CESI 13 ATEX 017X, EXA 13 ATEX 0029
Marking:	CE 0722
Apparatus category:	II 2G II 2D
Marking of explosion protection:	Ex e IIC or Ex de IIC, Ex de mb IIC, Ex ia/ib IIC T6 Gb Ex tb IIIC T80°C Db
Ambient temperature:	-20 °C ≤ T _a ≤ +50 °C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class:	I (protective earthing)
Rated insulation voltage U _i :	690 V AC (type with mantle terminals type SL U _i =400V AC)
Rated current I _{th} :	Up to 16 A (SKX 12-15) Up to 80A (SKX 16-20)
PE terminals (inside of the enclosure):	max. 2x4 mm ² +2x2,5 mm ² , 3x4 mm ² , 2x6 mm ²
Cover fixing:	4xM5/M6 cheese head screw, stainless steel A2
Color:	black, RAL 9005
Weight (only GRP boxes):	SKX 12 0.5 kg
	SKX 13 0,7 kg
	SKX 14 1.0 kg
	SKX 15 1.0 kg
	SKX 16 3,5 kg
	SKX 18 4,5 kg SKX 20 7,0 kg

MOUNTING With screw kit through the housing holes f6 mm at the peaks the rectangle:

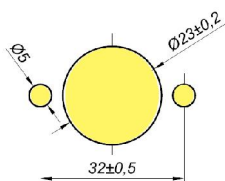
SKX 12: 75 x 50 mm	SKX 16: 235 x 200 mm
SKX 13: 75 x 100 mm	SKX 18: 380 x 200 mm
SKX 14: 75 x 150 mm	SKX 20: 580 x 200 mm
SKX 15/15H: 125 x 150 mm	



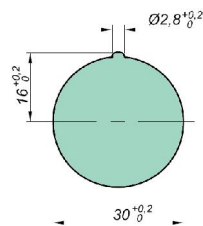
INSTRUCTIONS FOR DESIGN OF CONTROL UNITS type SKX 12/.. - 15/..

Products according to special request of the customer have the type designation which consists of a basic type designation: **SKX 12, SKX13, SKX 14, SKX 15** and **MSRU** number that represents the production number assigned by the manufacturer. The customer in the order defined the configuration, eg:
In to enclosure MMK 15 is installed switch SMS 03/3 with the switch actuator SMO 17/3, signal lamps SLP with a red front element SPO 02/01 and green SPO 02/02. On side A two cable glands ISO 25, and on side C two ISO plugs M25
Designation for ordering: MMK15 + SMS03/3 + SMO17/3 + 2xPBT/01+ SPO02/1 + SPO02/2 + A 2xSPU25 + C 2xSPC25

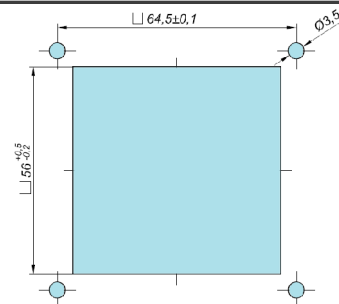
** mounting proposals and dimensions*



Switch actuator SMO 17/
Switch mounting

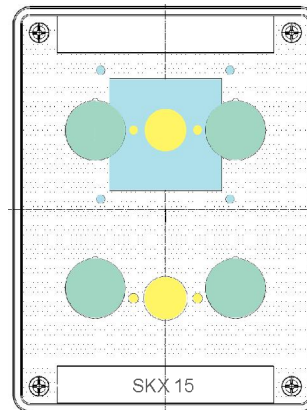
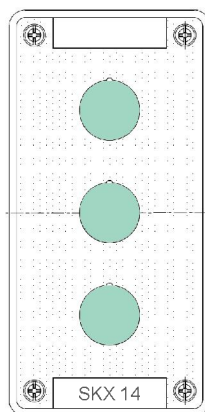
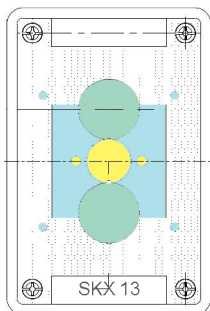
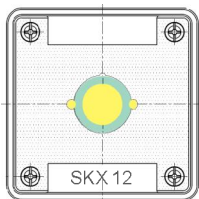


Pushbutton actuator SPO 01/
Front element of signal lamp SPO 02/
Pushbutton, signal lamp and potentiometer mounting

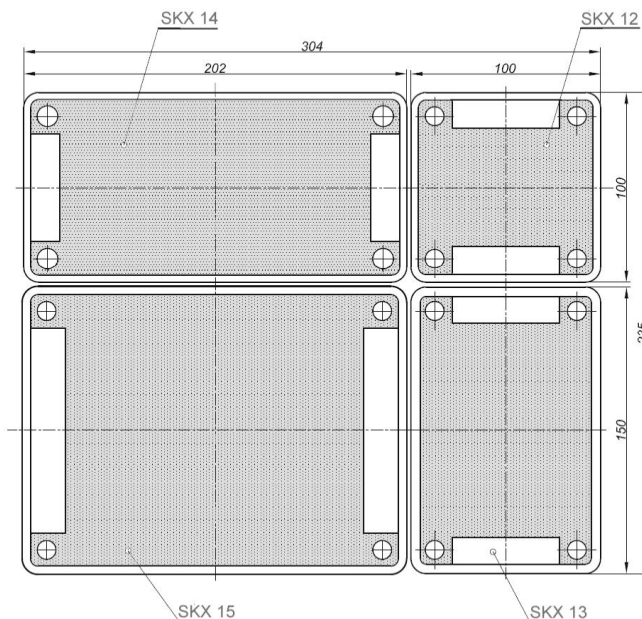
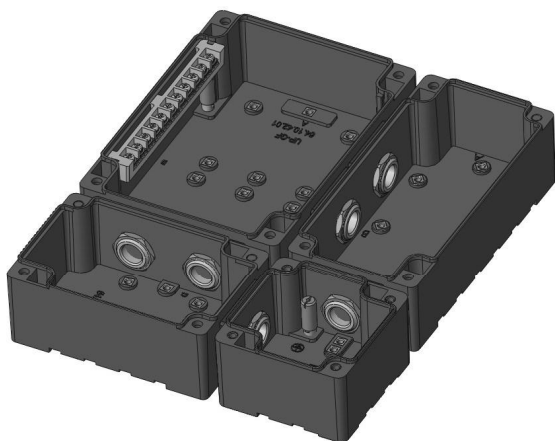


Front element of measuring instrument
(AM, VM) SAM 72
Measuring instrument mounting AM, VM

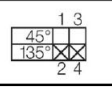
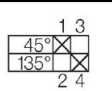
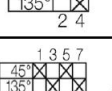
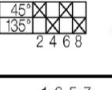
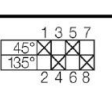
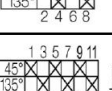
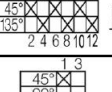
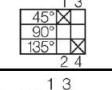
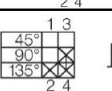
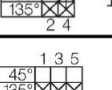
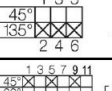
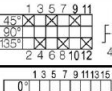
. Possible combinations and layout of indicators and actuators components

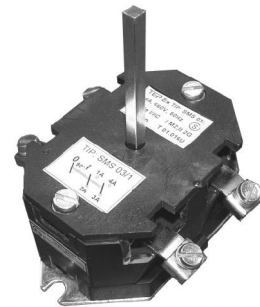


Various combinations of merged set (combination) of SKX enclosures



BUILD-IN COMPONENTS

Description, type	Schema		Overview
Control switch SMS 03/. II 2G I M2 Ex de I/IC Gb Mb • Rated voltage: 630 V AC • Rated current: 16 A • Terminals: 2,5 mm ²	HEMA 		TYPE SMS 03/1
			SMS 03/4
			SMS 03/5
			SMS 03/6
			SMS 03/12
			SMS 03/3
			SMS 03/2
			SMS 03/7
			SMS 03/10
			SMS 03/8
			SMS 03/9
			SMS 03/11

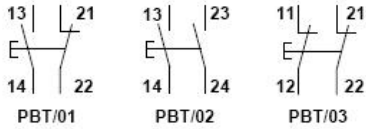



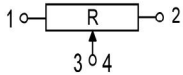









BUILD-IN COMPONENTS

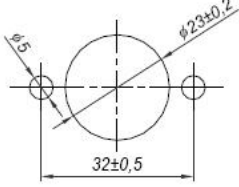
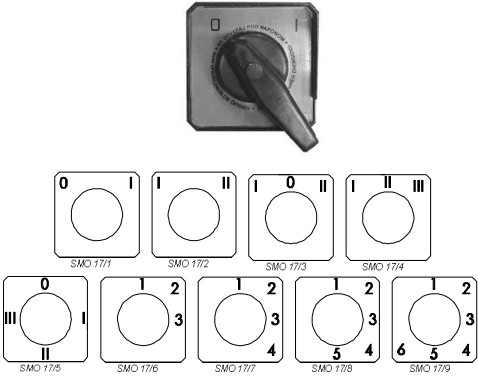
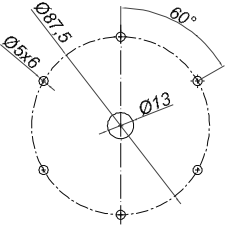

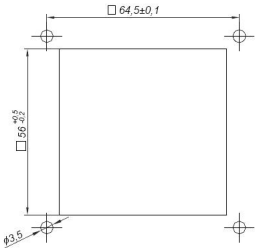
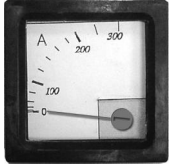
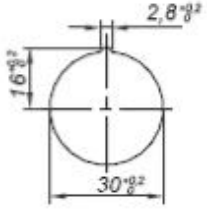

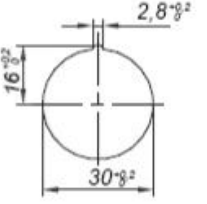

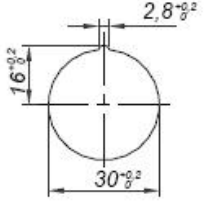

Description, type	Schema	Overview
<p>Control switch GHG 23.</p> <p>II 2GD Ex de IIC</p> <ul style="list-style-type: none"> • Rated voltage: 690 V AC • Rated current : 10 A • Terminals: 2,5 mm² 	<p>060</p>	
	<p>062</p>	
	<p>065</p>	
	<p>061</p>	
	<p>063</p>	
	<p>067</p>	
	<p>011</p>	
	<p>034</p>	
	<p>037</p>	
	<p>049</p>	
	<p>023</p>	
	<p>019</p>	
	<p>033</p>	
	<p>Main current switch GHG 260</p> <ul style="list-style-type: none"> • Rated voltage: 690 V AC • Rated current : 40 - 80 A • Terminals: 16 - 25 mm² 	

BUILD-IN COMPONENTS

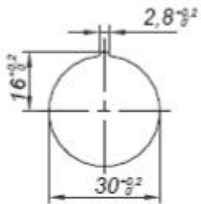

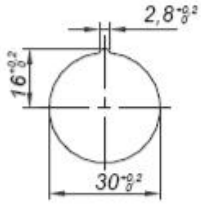

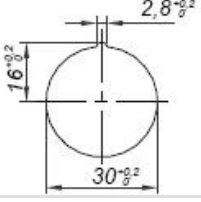

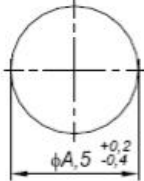



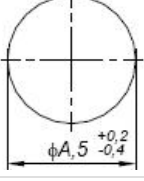


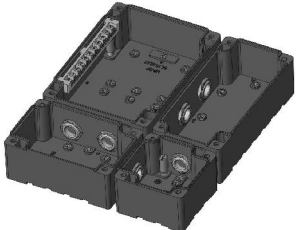
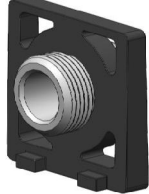
Description, type	Schema	Overview
<p>Pushbutton PBT/.</p> <ul style="list-style-type: none"> Rated voltage: 630V AC Rated current: 16A Terminals: 2,5 mm² 		
<p>Signal lamp SLP</p> <ul style="list-style-type: none"> Rated voltage: 12-250 V AC/DC Max. current: 20-8 mA Terminals: 2,5 mm² 		
<p>Potentionmeter PBT/POT</p> <ul style="list-style-type: none"> Rated voltage: 315 V AC/DC Rated power: 1W Scale: 0-100% / 270° Tolerance: ±20% Characteristic: linear Terminals: 2,5 mm² 	 <p>Resistance R:</p> <ul style="list-style-type: none"> 1,0 kΩ 2,2 kΩ 4,7 kΩ 10 kΩ 470 kΩ 	
<p>Measuring instruments AM 72, VM 72</p> <ul style="list-style-type: none"> Measuring range: AM: n/1 A, 0-20 mA, 0-25 A direct 4-20 mA VM: n/1A, 6-415V, 6-660 V Scale: according to customer demand Terminals: 1,5 - 4 mm² 	<p>-</p>	
<p>Mantle terminals SL5, SL8</p> <ul style="list-style-type: none"> Rated voltage: 400 V Rated current: 16 A AC Terminals: 4 mm² Max. No. of wire under one clamp: 2x4mm² + 2x2,5mm², 3x4mm² 	<p>-</p>	
<p>Terminals TH 35-7.5</p> <ul style="list-style-type: none"> 5 terminals 4mm² 2 terminals 16mm² Rated voltage: 690 V AC Rated current: 16 A 	<p>-</p>	
<p>N/PE busbar (only for SKX 15)</p> <ul style="list-style-type: none"> 11x max. 2x4mm² 	<p>-</p>	



ACTUATORS AND INDICATORS

Description, type	Mounting	Overview																				
<p>Switch actuator SMO 171/ II 2G II 2D I M2 Ex e I/IIC Gb Mb Ex t IIIC Db</p>																						
<p>Switch actuator GHG 260 1006</p>																						
<p>Front element of measuring instruments SAM 72 II 2G II 2D I M2 Ex e I/IIC Gb Mb Ex t IIIC Db</p>																						
<p>Puschbitton actuator SPO 01/ II 2G II 2D I M2 Ex e I/IIC Gb Mb Ex t IIIC Db</p>		<p>Type SPO 01/.</p> <table border="1" data-bbox="1171 1301 1458 1626"> <tr><td>SPO 01/01</td><td>0</td></tr> <tr><td>SPO 01/02</td><td>I</td></tr> <tr><td>SPO 01/03</td><td>II</td></tr> <tr><td>SPO 01/04</td><td>RED</td></tr> <tr><td>SPO 01/05</td><td>GREEN</td></tr> <tr><td>SPO 01/06</td><td>WHITE</td></tr> <tr><td>SPO 01/07</td><td>START</td></tr> <tr><td>SPO 01/08</td><td>STOP</td></tr> <tr><td>SPO 01/09</td><td>ON</td></tr> <tr><td>SPO 01/10</td><td>OFF</td></tr> </table> 	SPO 01/01	0	SPO 01/02	I	SPO 01/03	II	SPO 01/04	RED	SPO 01/05	GREEN	SPO 01/06	WHITE	SPO 01/07	START	SPO 01/08	STOP	SPO 01/09	ON	SPO 01/10	OFF
SPO 01/01	0																					
SPO 01/02	I																					
SPO 01/03	II																					
SPO 01/04	RED																					
SPO 01/05	GREEN																					
SPO 01/06	WHITE																					
SPO 01/07	START																					
SPO 01/08	STOP																					
SPO 01/09	ON																					
SPO 01/10	OFF																					
<p>Front element of signal lamp SPO 02/ II 2G II 2D I M2 Ex e I/IIC Gb Mb Ex t IIIC Db</p>		<p>Type SPO 02/.</p> <table border="1" data-bbox="1171 1682 1458 1816"> <tr><td>SPO 02/01</td><td>RED</td></tr> <tr><td>SPO 02/02</td><td>GREEN</td></tr> <tr><td>SPO 02/03</td><td>YELLOW</td></tr> <tr><td>SPO 02/04</td><td>TRANSPARENT</td></tr> </table> 	SPO 02/01	RED	SPO 02/02	GREEN	SPO 02/03	YELLOW	SPO 02/04	TRANSPARENT												
SPO 02/01	RED																					
SPO 02/02	GREEN																					
SPO 02/03	YELLOW																					
SPO 02/04	TRANSPARENT																					
<p>Key-operated pushbutton actuator GHG 410 1904 R0012 II 2GD Ex e II IP66</p>																						

ACTUATORS AND INDICATORS

Description, type	Mounting	Overview
Mushroom-head pushbutton actuator GHG 418 815 ..R.. (EMERGENCY-STOP) II 2GD Ex e II IP66		
Key-operated mushroom-head pushbutton actuator GHG 418 815 ..R.. (EMERGENCY-STOP) II 2GD Ex e II IP66		
Potentiometer acuator GHG 410 1944 R0010 II 2GD Ex e II IP66		
Cable gland SPU ISO 16 - ISO 40 II 2G II 2D Ex e I/IIC Gb Ex t IIIC Db		
Cable gland for armoured cable SPU A ISO 16 - ISO 40 II 2G II 2D Ex e I/IIC Gb Ex t IIIC Db		
Plug SPC .. ISO 16 - ISO M40 II 2G II 2D Ex e I/IIC Gb Ex t IIIC Db		
Main fuse NH0 300XX, NH0, 301XX	<p style="text-align: center;">-</p>	
Connection part SKX		



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EXA 13 ATEX 0029

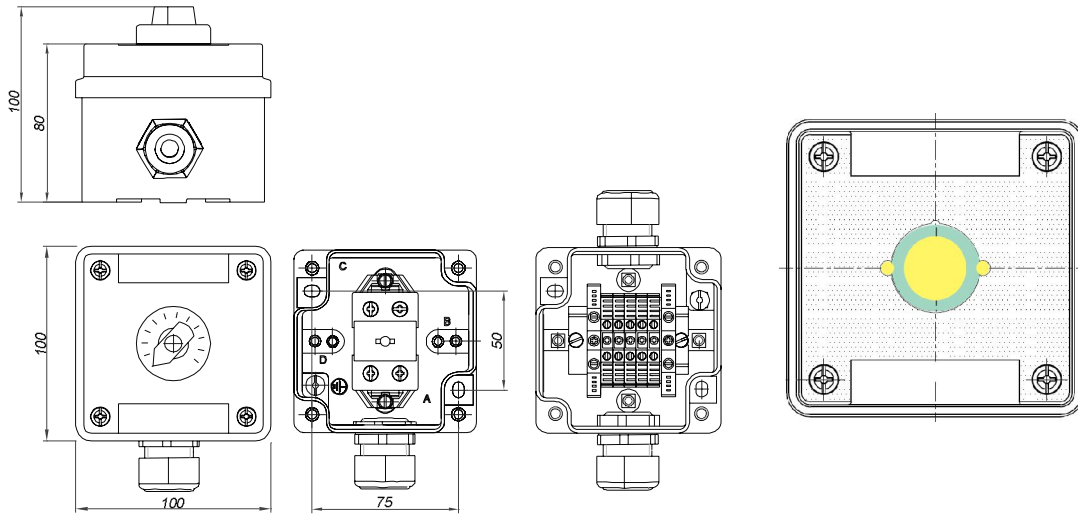
CE 0722

IP 66

-20°C

+50°C

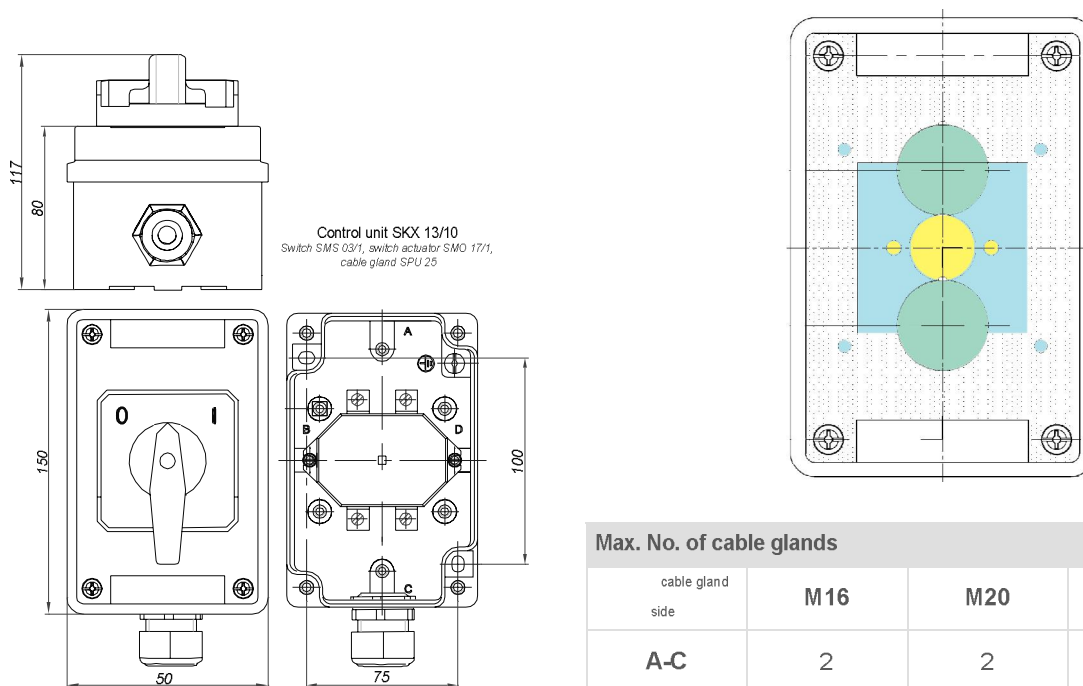
Enclosure type SKX 12



Max. No. of cable glands

cable gland side	M16	M20	M25
A-C	2	2	1
B-D	1	1	1

Enclosure type SKX 13

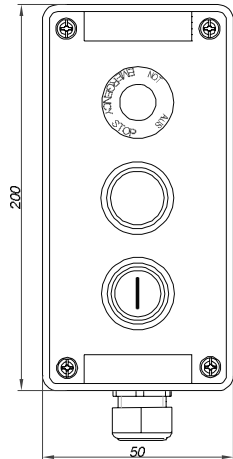
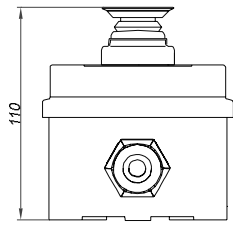


Control unit SKX 13/10
Switch SMS 03/1, switch actuator SMO 17/1,
cable gland SPU 25

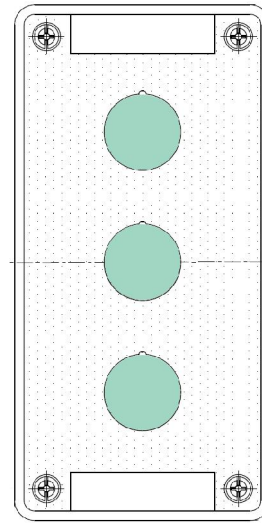
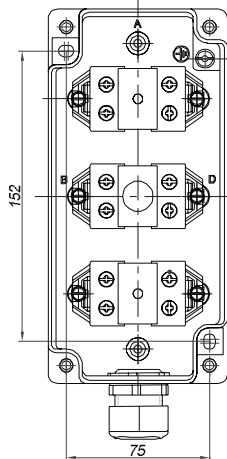
Max. No. of cable glands

cable gland side	M16	M20	M25
A-C	2	2	1
B-D	4	3	2

Enclosure type SKX 14



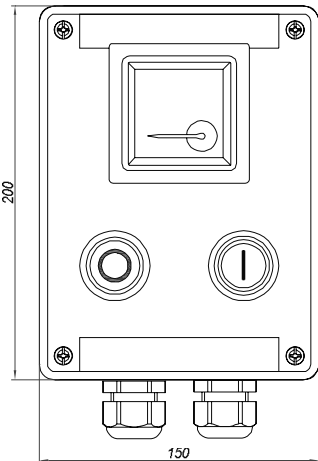
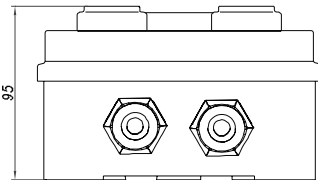
Control unit SKX 14/MSRU ...
 2x pushbutton PBT 01, pushbutton actuator SPO 01/1,
 mushroom-head pushbutton actuator,
 1x signal lamp SLP 01, front element SPO 0202
 cable gland SPU 25



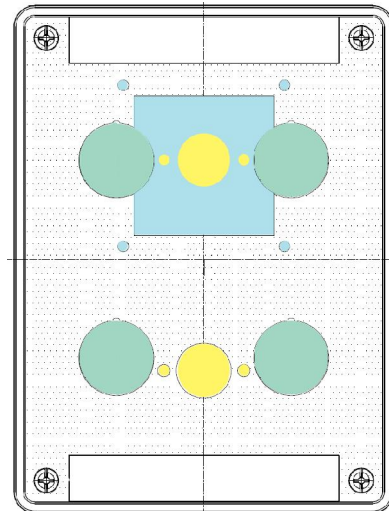
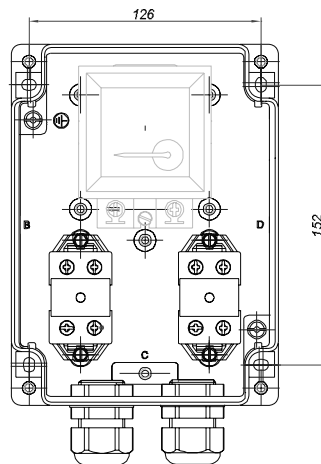
Max. No. of cable glands

cable gland side	M16	M20	M25	M32
A-C	2	2	1	1
B-D	6	4	3	2

Enclosure type SKX 15



Control unit SKX 15/11-11
 2x pushbutton PBT 01, pushbutton actuator SPO 01/1, SPO 01/2,
 ammeter AM T2, 100/1A, front element of
 measuring instruments SAM T2, 2x cable gland SPU 25



Max. No. of cable glands

cable gland side	M16	M20	M25	M32	M40
A-C	4	3	2	2	1
B-D	6	4	3	2	2

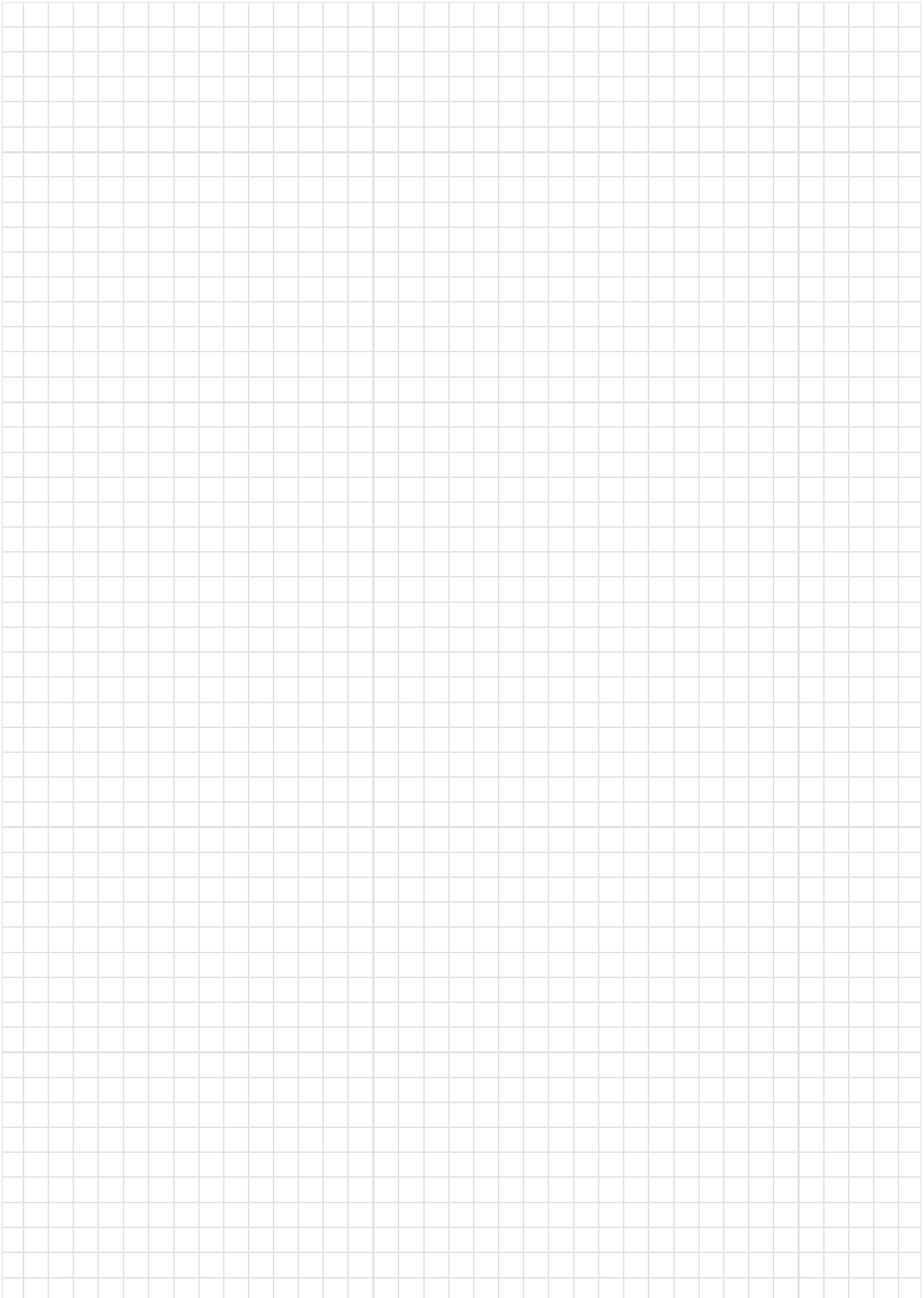
* with built-in N/PE busbar

cable gland side	M16	M20	M25	M32	M40
A-C	4	3	2	2	1
B-D	5	3	3	-	-



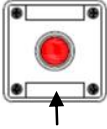
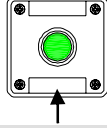
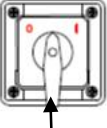
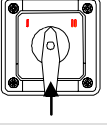
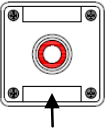
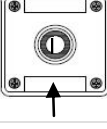
CESI 13 ATEX 017X
EXA 13 ATEX 0029

CE 0722





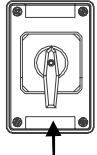
STANDARD PRODUCTS OF CONTROL UNITS

SKX 12/ ..


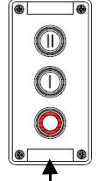
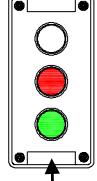
Type	Build-in components and actuator / indicator	Overview
SKX 12/1	Signal lamp SLP - red SPO 02/1 - cable gland SPU 25	
SKX 12/2	Signal lamp SLP - green SPO 02/2 - cable gland SPU 25	
SKX 12/3	Signal lamp SLP - white SPO 02/4 - cable gland SPU 25	-
SKX 12/21	Control switch SMS 03/1 - switch actuator SMO 17/1 - cable gland SPU 25	
SKX 12/22	Serial switch SMS 03/8 - switch actuator SMO 17/5 - cable gland SPU 25	0 - I - II - III
SKX 12/23	Control switch SMS 03/6 - switch actuator SMO 17/2 - cable gland SPU 25	
SKX 12/31	Pushbutton PBT 01 - Key-operated mushroom-head pushbutton actuator GHG 410 1906 R0005 - cable gland SPU 25	-
SKX 12/32	Pushbutton PBT 01 - pushbutton actuator SPO 01/1 - cable gland SPU 25	
SKX 12/33	Pushbutton PBT 01 - pushbutton actuator SPO 01/2 - cable gland SPU 25	
SKX 12/34	Pushbutton PBT 01 - Mushroom-head pushbutton actuator GHG 410 1905 R0005 - cable gland SPU 25	-
SKX 12/35	Pushbutton PBT 01 - Mushroom-head pushbutton actuator GHG 410 1906 R0005 with protector - 2x cable gland SPU 20	-
SKX 12/36	Pushbutton PBT 011 - Key-operated pushbutton GHG 410 1906 R0005 - 2x cable gland SPU 20	-
SKX 12/37	Potentiometer GHG 4101901 R0193 - GHG 410 1944 R0010 - cable gland SPU 25	-



SKX 13/ ..

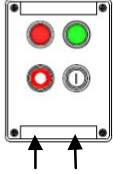
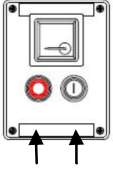
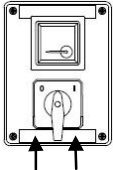
Type	Build-in components and actuator / indicator	Overview
SKX 13/1	2x pushbutton PBT 01 - SPO 01/1 - SPO 01/2 - cable gland SPU 25	
SKX 13/11	Pushbutton PBT 01 - SPO 01/1 - Signal lamp SLP - Front element of signal lamp SPO 02/2 - cable gland SPU 25	
SKX 13/21	Mantle terminals SL8 - 6x cable gland SPU 25	-
SKX 13/71	Switch GHG 23. ...R.... (Ex 23 4 024) - switch actuator SMO 17/2 - cable gland SPU 25	-
SKX 13/72	Switch GHG 23. ...R.... (Ex 23 8 067) - switch actuator SMO 17/1 - cable gland SPU 25	-
SKX 13/10	Switch SMS 03/1 - switch actuator SMO 17/1 - cable gland SPU 25	
SKX 13/20	SMS 03/4 - SMO 17/2 - SPU 25	
SKX 13/30	SMS 03/5 - SMO 17/2 - SPU 25	
SKX 13/40	SMS 03/6 - SMO 17/2 - SPU 25	
SKX 13/60	SMS 03/3 - SMO 17/3 - SPU 25	
SKX 13/70	SMS 03/2 - SMO 17/1 - SPU 25	
SKX 13/80	SMS 03/7 - SMO 17/1 - SPU 25	
SKX 13/100	SMS 03/8 - SMO 17/5 - SPU 25	
SKX 13/110	SMS 03/9 - SMO 17/1 - SPU 25	
SKX 13/120	SMS 03/11 - SMO 17/2 - SPU 25	

SKX 14/ ..

Type	Build-in components and actuator / indicator	Overview
SKX 14/1	2x pushbutton PBT 01 - SPO 01/1 - SPO 01/2 - Signal lamp SLP - SPO 02/2 - cable gland SPU 25	
SKX 14/11	3x pushbutton PBT 01 - pushbutton actuator SPO 01/1 - SPO 01/2 - SPO 01/3 - cable gland SPU 25	
SKX 14/21	Mantle terminals SL 8 - 8x cable gland SPU 25	-
SKX 14/22	3x signal lamp SLP front element of signal lamp SPO 02/1 - SPO 02/2 - SPO 02/3 - cable gland SPU 25	
SKX 14/31	3x pushbutton PBT 01 - pushbutton actuator SPO 01/1 - SPO 01/2 Mushroom-head pushbutton actuator GHG 410 1906 R0005 - cable gland SPU 25	-



SKX 15/ ..

Type	Build-in components and actuator / indicator	Overview
SKX 15/1	2x pushbutton PBT 01 - SPO 01/1 - SPO 01/2 - 2x signal lamp SLP - 02/1 - SPO 02/2 - 2x cable gland SPU 25	
SKX 15/11-11	2x pushbutton PBT 01 - pushbutton actuator SPO 01/1 - SPO 01/2 - ammeter AM 72 100/1A - 2x cable gland SPU 25	
SKX 15/11-12	2xPBT 01 - SPO 01/1 - SPO 01/2 - AM 72 50/1 A - 2xSPU 25	
SKX 15/11-21	2xPBT 01 - SPO 01/1 - SPO 01/2 - AM 72 100/5 A - 2xSPU 25	
SKX 15/11-22	2xPBT 01 - SPO 01/1 - SPO 01/2 - AM 72 50/1 A - 2xSPU 25	
SKX 15/21-11	Switch GHG 23. .R.. - switch actuator SMO 17/1 - ammeter AM 72 100/1 A - 2x uvodnica SPU 25	
SKX 15/21-12	Switch GHG 23. ...R... - switch actuator SMO 17/1 - ammeter AM 72 100/1 A - 2x uvodnica SPU 25	
SKX 15/21-21	Switch GHG 23. ...R.... - Switch actuator SMO 17/1 - ammeter AM 72 100/5 A - 2x uvodnica SPU 25	
SKX 15/21-22	Switch GHG 23. ...R.... - switch actuator SMO 17/1 - ammeter AM 72 50/5 A - 2x cable gland SPU 25	
SKX 15/34	4x pushbutton PBT/1 - 2xSPO 01/1 - 2xSPO 01/2 - 2x cable gland SPU 25	
SKX 15/41	Switch SMS 03/1 - 2x terminal EURO E16-25 - 2x cable gland SPU 25	-
SKX 15/50	Switch SMS 03/12 - SMO 17/2 - cable gland SPU 25	-
SKX 15/90	Switch SMS 03/10 - SMO 17/3 - cable gland SPU 25	-
SKX 15/51	Switch SMS 03/9 - SMO 17/1 - 2x pushbutton PBT/1 - SPO 01/1 - SPO01/2 - 2x cable gland SPU 25	-
SKX 15/61	Switch GHG 23. ...R.... (Ex 23 4 024) - SMO 17/2 - 5x terminal EURO E4 - cable gland SPU 25	-
SKX 15/62	Switch GHG 23. ...R.... (Ex 23 8 067) - SMO 17/1 - 5x terminal EURO E4 - cable gland SPU 25	-
SKX 15/65	4x mantle terminals SL5 - 8x cable gland SPU 25	-

**INSTRUCTIONS FOR DESIGN OF LOW VOLTAGE SWITCHGEAR AND CONTROL GEAR ASSEMBLYES
type SKX 16/..., SKX 18/..., SKX 20/..**


In and on Ex e enclosure or combination of multiple enclosures, interconnected by bushing, are mounted " Ex e d m ia/ib" and Ex e built-in components, actuators and indicators.

There are no limitation in orientation of enclosure/combination of multiple enclosures, (longer side of enclosure is mounted horizontally or vertically) and the manner of which the mounting is set to the surface.

In horizontal orientation of enclosure, built-in components and actuators and indicators are mounted in maximum two rows.

In vertical orientation of enclosure , built-in components and actuators and indicators are mounted in maximum:

SKX 16 - 2 rows

SKX 18 - 3 rows

SKX 20 - 5 rows

The actual nuber of mounted rows depends on the device configuration.

Circuit breaker 3p/4p $I_{th} = 40 A, 80 A$ with its matching actuator or block NH 00 main fuse always occupies two hole rows,

Actuators and indicators – circuit breaker which are not connected with the actuator, always occupies one and a half row. In one row there can be maximally be:

SKX 16 - 6 pols, horizontal and vertical orientation of the enclosure,

SKX 18 - 12 pols vertical, 8 pols horizontal orientation of the enclosure,

SKX 20 - 18 pols vertical, 12 pols horizontal orientation of the enclosure.

We design systems to suit your requirements on the basis of the data you supply us with:

- the required minimum type of protection
- as appropriate, details of the hazardous atmosphere for which the equipment must be suitable
- single line or wiring diagram
- schematic for control systems
- operating, auxiliary and control voltages
- frequency
- power and current ratings of connected loads
- quantities and types of components required, e.g. contactors, switches, circuit-breakers, fuses, thermal relays, instruments, terminals etc
- quantity and types of cables
- number and size of conductors
- quantity and location of entries (from top, bottom, side, centre)
- environmental conditions
- method of installation





CESI 13 ATEX 017X
EXA 13 ATEX 0029

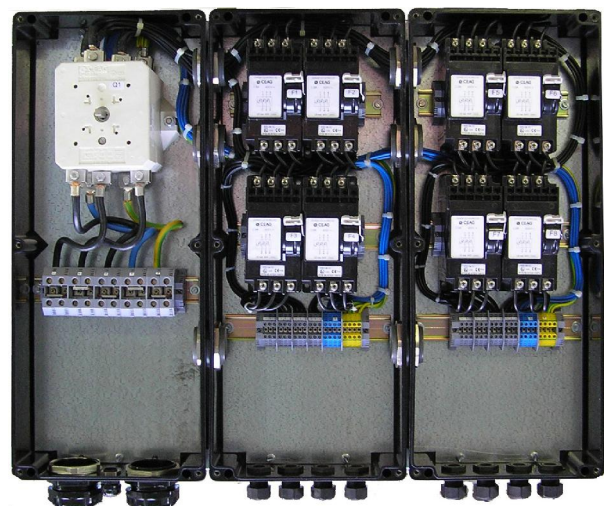
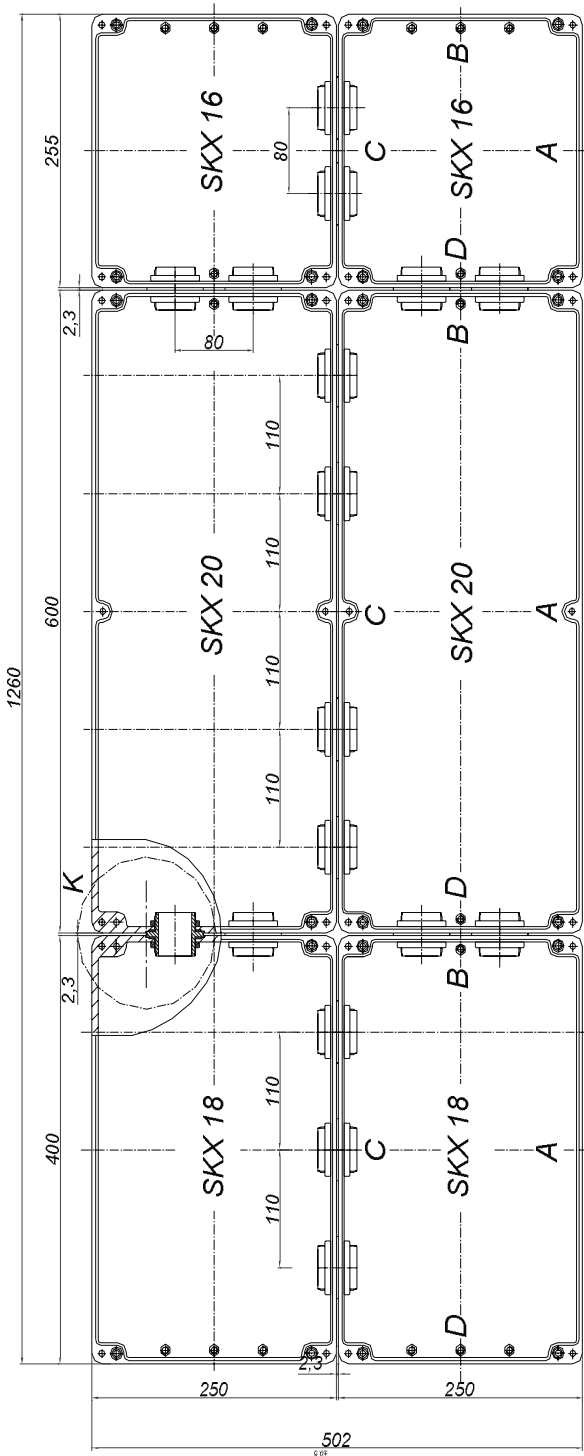
CE 0722

IP 66

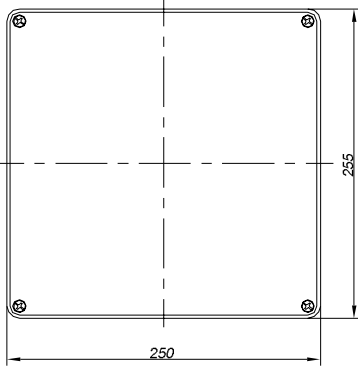
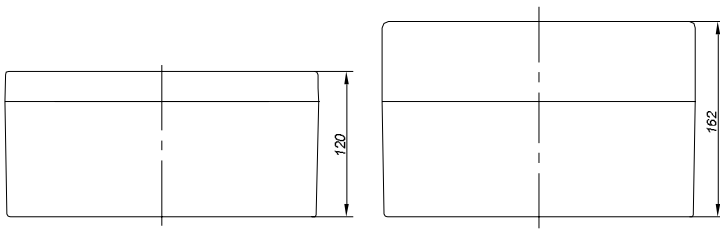
-20°C

+50°C

Various combinations of merged set (combination) of SKX enclosures

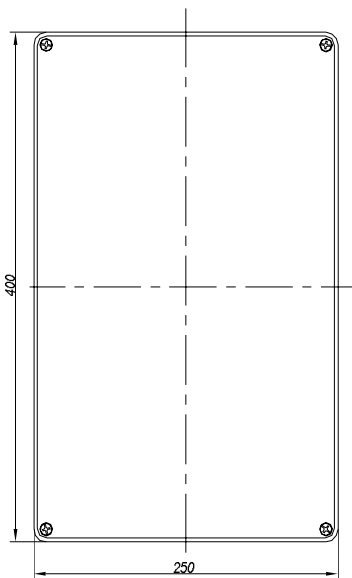
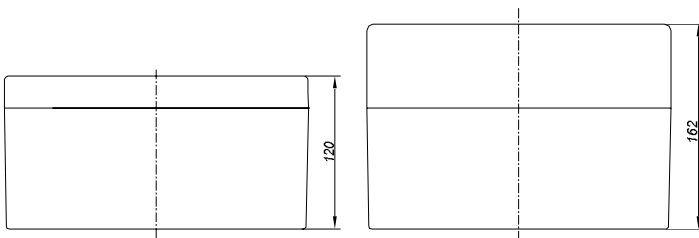


Enclosure type SKX 16



Side	Cable gland	M20	M25	M32	M40	M50	M63
B-D		9	9	5	3	3	2
A-C		7	5	3	3	-	-

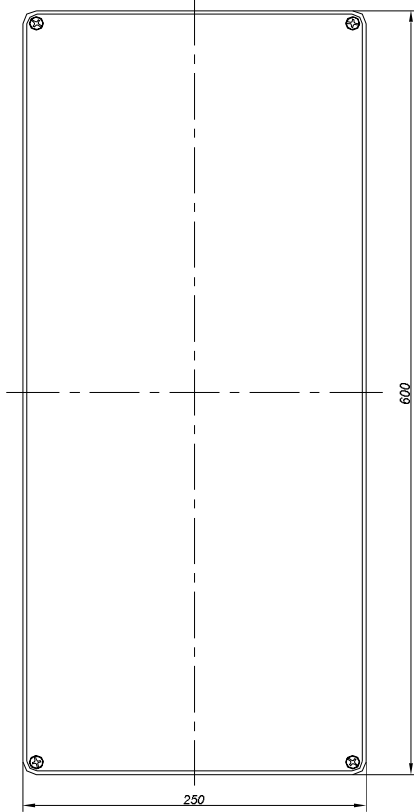
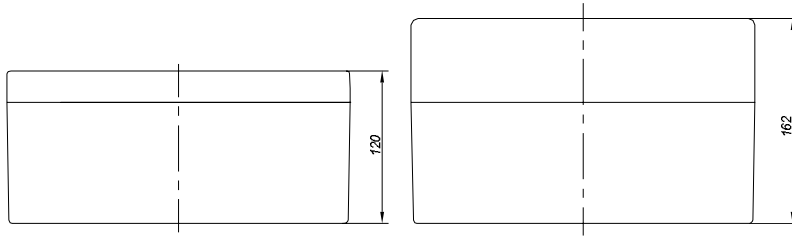
Enclosure type SKX 18



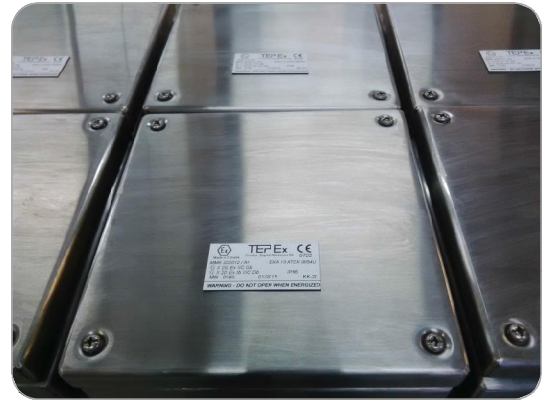
Side	Cable gland	M20	M25	M32	M40	M50	M63
B-D		15	15	9	6	5	4
A-C		7	5	3	3	-	-



Enclosure type SKX 20



Side	Cable gland	M20	M25	M32	M40	M50	M63
B-D		22	22	12	8	6	6
A-C		7	5	3	3	-	-



APPLICATION

Explosion protected control units type SKX INOX are intended for the control, distribution and signaling in the power circles in places with an explosive gas and dust atmosphere. Control units are designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Hazardous areas 1, 2, 21, 22.

CONSTRUCTION

Enclosure: Stainless steel AISI 316L, brush finished, thickness 1.5mm

Gasket: EPDM formed gasket

TECHNICAL DATA

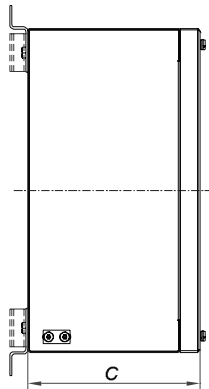
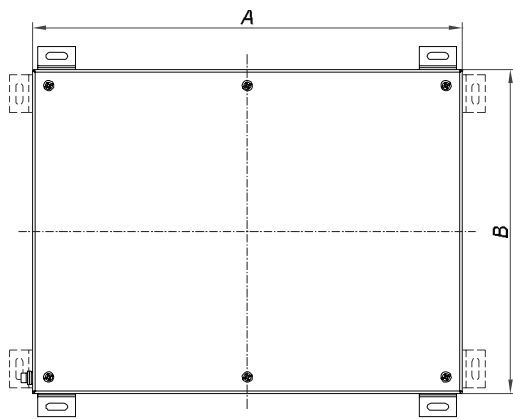
Certificate:	EXA 15 ATEX 0036
Marking:	CE 0722
Apparatus category:	Ex II 2GD
Marking of explosion protection:	Ex d e mb ia/ib IIC T4...T6 Gb Ex tb IIIC T80°C Db
Ambient temperature:	-20 °C ≤ T _a ≤ +50 °C
Degree of protection:	IP 66 kategorija 1
Resistance to shock:	IK 09
Protective class:	I (zaštitno uzemljenje)
Nominal voltage U _n :	690 V
PE terminal (inte./ext.):	max. 2x4 mm ² +2x2,5 mm ² , 3x4 mm ² , 2x6 mm ²

MODEL CODE

Control combinations SKX 16I, SKX 18I, SKX 20I, are the products configured according to customer demand.

Type designation consists of a basic type designation - SKX 16I od SKX 18I or SKX 20I + SRU number that represents the manufacturing number and is assigned by increment, for example:

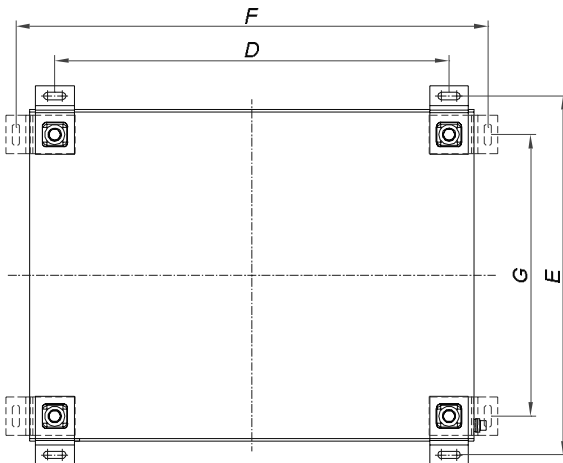
- SKX 18I / SRU - 1280 - a combination of control in the housing MMK 403016 performed by production number 1280

**DIMENSION**

	A[mm]	B[mm]	C[mm]
SKX 16 I	300	200	120
SKX 18 I	400	300	160
SKX 20 I	600	400	160

MOUNTING

With screw kit through the 12/7 mm openings on the enclosure in the tips of rectangle



	D[mm]	E[mm]	F[mm]	G[mm]
SKX 16 I	255	227	330	152
SKX 18 I	355	327	430	252
SKX 20 I	555	427	630	352

SPARE PARTS AND ACCESSORIES

- Enclosure lid gasket SKX 16I/SRU...:
- Ex e II cable gland M16, M20, M25, M32, M40, M50, M63 set
- Ex e II plug M16, M20, M25, M32, M40, M50, M63 set
- Ex e II connection terminal Connectwell CTS6UN
- Lid screw – combi screw M5x25 (Z4) - 4.8 A2



APPLICATION

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

CONSTRUCTION

Enclosure: polyester plastic reinforced with glass fiber, color - black

Cover: with integrated Thermoplastic elastomer gasket, closes with four M5 stainless steel screws.

TECHNICAL DATA

Certificate:	EXA 15 ATEX 0006X
Marking:	CE 0722
Apparatus category:	Ex II 2G
Marking of explosion protection:	Ex d e IIC T6 Gb
Ambient temperature:	-20 °C ≤ T _a ≤ +50 °C
Degree of protection:	IP 54
Resistance to shock:	IK 08
Protective class:	I (PE-protective earthing)
Nominal voltage U _i :	690 V
Rated thermal current I _{th} :	16 A za -20°C ≤ T _a ≤ +40°C 15 A za -20°C ≤ T _a ≤ +50°C
PE terminal within housing:	max. 2x4 mm ² +2x2,5 mm ² , 3x4 mm ² , 2x6 mm ²
Screw of cover:	4xM5/10 (Z4)-4.8 A2 combi screw
Color:	black, RAL 9005
Weight:	0,6 kg

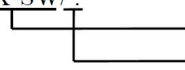
Switching capacity	Rated operating voltage U _e	Rated operating current I _e
AC 5a	230 V	16 A za -20°C ≤ T _a ≤ +40°C
		15 A za -20°C ≤ T _a ≤ +50°C
AC 5b	230 V	16 A za -20°C ≤ T _a ≤ +40°C
		15 A za -20°C ≤ T _a ≤ +50°C
AC 1	500 V	16 A za -20°C ≤ T _a ≤ +40°C
		15 A za -20°C ≤ T _a ≤ +50°C
AC 15	250 V	6 A za -20°C ≤ T _a ≤ +50°C
	500 V	4 A za -20°C ≤ T _a ≤ +50°C
DC 13	24 V	6 A za -20°C ≤ T _a ≤ +50°C
	60 V	0,8 A za -20°C ≤ T _a ≤ +50°C
	110 V	0,5 A za -20°C ≤ T _a ≤ +50°C

SKX SW



MODEL CODE

Installation switches SKX-SW/

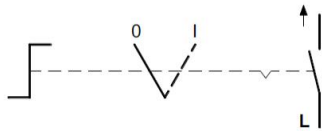


-basic type code:
-type of switches

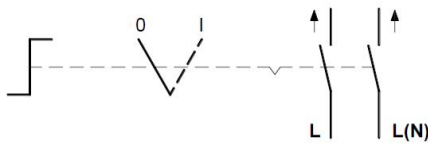
- 1- on-off switch 1 pole
- 2- on-off switch 2 pole
- 6- two-way switch

WIRING DIAGRAM

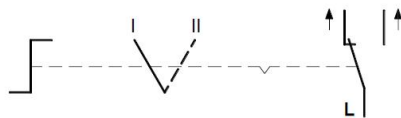
ON-OFF switch 1 pole



ON-OFF switch 2 pole

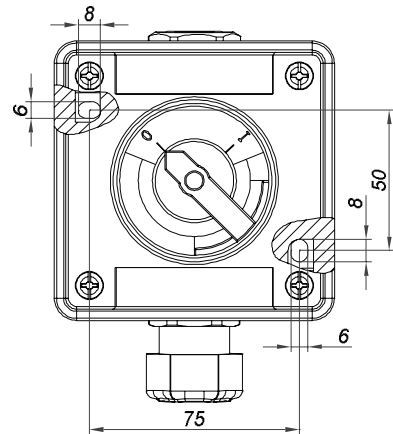
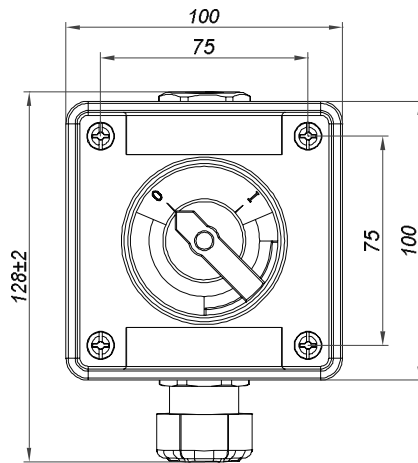
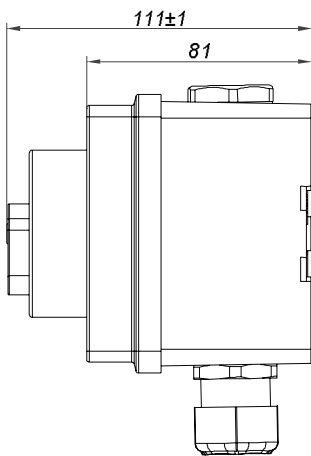


Two-way switch



DIMENSION

MOUNTING





APPLICATION

Explosion protected grounding and grounding control device type GGCD-01/.. together with clamp make active grounding system for static grounding and permanent monitoring is intended for use in places with an explosive gas and dust atmosphere. The GGCD is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

Explosion protected grounding and grounding control device type GGCD-01/.., intended for the permanent removal of electrostatic charge that may occur during filling or emptying tanks (road tanks, railcar tanks, barrels). The system provides the conditions for starting the production process only if the insured continuity control loop earthing resistance and jaw of clamp for grounding.

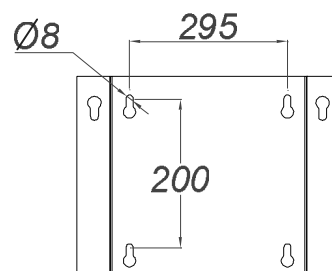
CONSTRUCTION

Enclosure: polyester plastic reinforced with glass fiber, color - black
 Cover: with integrated Thermoplastic elastomer gasket, closes with four M6 stainless steel screws.

TECHNICAL DATA

Certificate:	Ex CESI 11 ATEX 041
Marking:	CE 0722
Apparatus category:	II 2G
Marking of explosion protection:	Ex d e [ib] mb IIC T5 Gb
Ambient temperature:	-20 °C ≤ T _a ≤ +50 °C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 08
Protection class:	I (protective earthing)
Rated voltage:	230V ± 10%
Rated current:	50 mA
Frequency:	50Hz
Output circuit:	2 NO/NC U _n =250 V AC, I _n =8 A / 230 V, 4 A at cosφ=0.4
Push button START:	Starting the system, control the time about 10s
Signal lamps:	Red: blinking inside control time (10 sec - MOD2), contacts NO are open, contacts NC are closed, continuous operation (MOD1 and MOD 2), contacts NO are open, contacts NC are closed Green: continuous operation (MOD1 and MOD 2), contacts NO are closed, contacts NC are open
Cable entries:	3 x M25 - power supply, two output circuit 4 x M25 - 2x connection clamp, 2x wire to equipotential busbar or grounding
Weight:	6 kg (without clamp and cable) weight of clamps with 10 m cable ca. 2,5 kg

MOUNTING



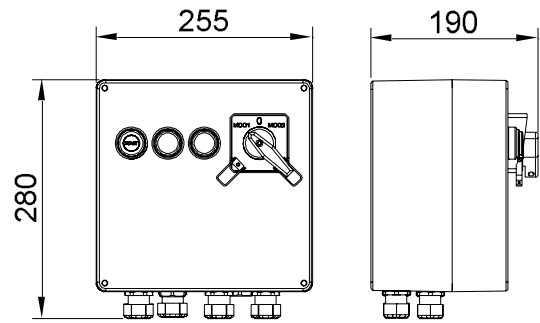
GGCD



MODEL CODE

DIMENSION

TYPE	DESCRIPTION:
GGCD-01/K1	Type with one a clamp K1 with 10m spiral cable
GGCD-01/K2	Type with two clamps K1 with 2x10m spiral cable



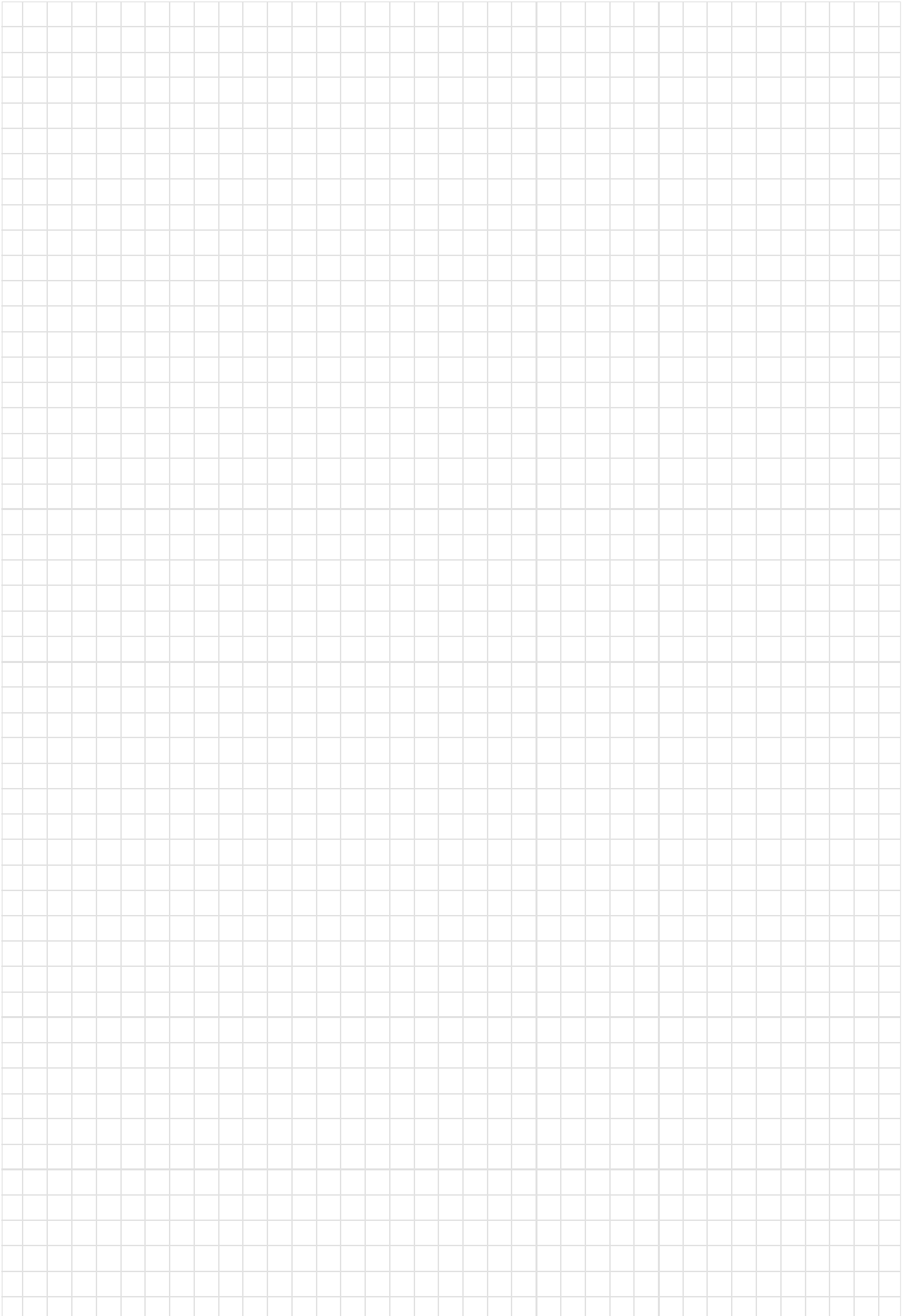
ACCESSORIES:

1. Cable reel - 20m with plugs for connection to GGCD
2. Metal cable glands for armoured cable Ex e II
3. Dislocated monitoring system

Principle of work for GGCD-01..

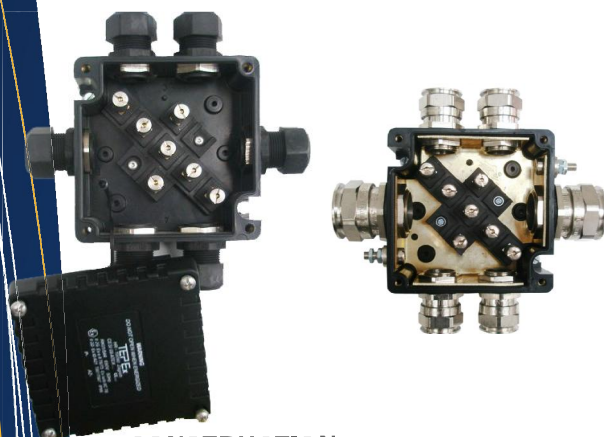
indication on the device	response device
	Clamps are not connected <ul style="list-style-type: none"> • bright red light • disabled transport
	Clamps are short-circuited with the earthing construction (for example, the iron fence) <ul style="list-style-type: none"> • bright red light • disabled transport
	Tank is connected via the device GGCD-01 <ul style="list-style-type: none"> • bright green light • transport allowed
	Tank is connected via the device GGCD-01 but cable to the grounding or busbar is broken <ul style="list-style-type: none"> • bright red light • disabled transport
	Tank is connected via the device GGCD-01 + successively ground through, for example, "loading arm" <ul style="list-style-type: none"> • bright green light • transport allowed







**TERMINAL BOXES
DISTRIBUTION CABINETS**



APPLICATION

Explosion protected junction boxes RK 01/... are intended for carrying and distributing electrical power in places with an explosive gas and dust atmosphere. The junction box is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

The junction box RK 01/... are fitted with pillar (mantle) terminals or terminal blocks for cable up to 6mm². For cable with armored cable there are junction boxes available with internal metal plate and external earthing terminal.

CONSTRUCTION

Enclosure: PA glass fiber reinforced polyamide, color - black

Cover: PA glass fiber reinforced polyamide with integrated thermoplastic elastomer gasket, closes with four M5 stainless steel screws.

TECHNICAL DATA

Certificate:	CESI 10 ATEX 040		
Marking:	CE 0722		
Apparatus category:	II 2G II 2D		
Marking of explosion protection:	Ex e II T6 Ex ia/ib IIC T6 Ex tD A21 T80°C		
Ambient temperature:	-20°C ≤ Ta ≤ +40°C or +50°C -40°C ≤ Ta ≤ +50°C, with specially designed cable glands -40°C ≤ Ta ≤ +70°C, for Ex i, with specially designed glands		
Degree of protection:	IP 66 category 1		
Resistance to shock:	IK 08		
Protection class:	I (protective earthing)		
Rated voltage:	630 V		
Maximum voltage for Ex i:	60 V		
Nominal cross-section:	4 mm ² RK01/514, RK01/514 Exi, RK01/544, RK01/744 6 mm ² RK01/516		
Terminal rated current:	RK01/744, RK01/544	Ta ≤ 40°C	22 A
	RK01/544E	Ta ≤ 50°C	18 A
	RK01/514	Ta ≤ 40°C	20 A
		Ta ≤ 50°C	16 A
	RK01/516	Ta ≤ 40°C	25 A
		Ta ≤ 50°C	20 A
Cable current load capacity:	1.5 mm ² - 16 A 2.5 mm ² - 20 A 4 mm ² - 25 A 6 mm ² - 32 A		
Cable entries, cable glands and screw plugs:	Cable entries in accordance with EN 60423 Cable glands in accordance with EN 50262 6 x M25 for cable φ6-15 mm (φ13-19 mm available on request) 6 x M32 for cable φ12-21 mm (φ17-25 mm available on request) 4 x M25 for cable φ6-15 mm (φ13-19 mm available on request) 4 x M32 for cable φ12-21 mm (φ17-25 mm available on request)		
External earthing terminal:	2x6 mm ² max., cable lug 6-6, DIN 46234 (on type RK01/544-E)		
Weight:	0,55 kg 0,80 kg with internal metal plate		
Packing:	The packing contains: 14 pcs 435x260x220 mm		

MOUNTING

With two screws through the housing holes φ6 mm at the peaks the rectangle:
100 x 75 mm

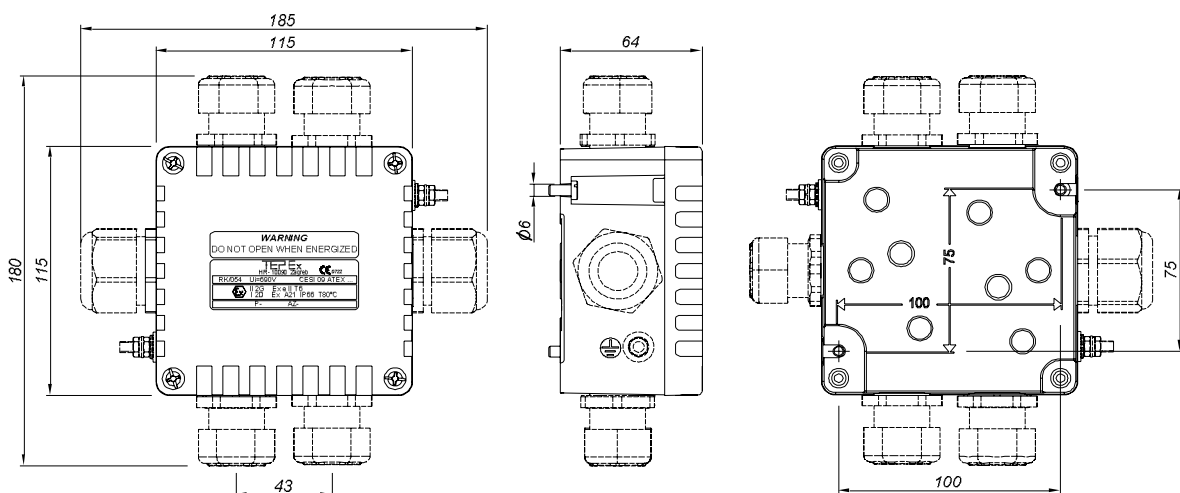


MODEL CODE

TYPE	DESIGN	CABLE GLANDS	NUMBER OF TERMINALS - TERMINAL CROSS SECTION (nominal)	MAX. CAPACITY PER TERMINAL
RK 01/514		cable glands 4xM25 for cable ϕ 6-15mm, 2xM25 screw plug	5 - 1 x 4mm ² (L1, L2, L3, N, PE)	1x0,5...4mm ² 2x0,5...2,5mm ²
RK01/514 Ex i			5 - 1 x 4mm ² (Blue 1-5)	
RK 01/516			5 - 1 x 6mm ² (L1, L2, L3, N, PE)	1x1,5...6mm ² 2x1,5...4mm ²
RK 01/544		cable glands 4xM25 for cable ϕ 6-15mm	5 - 4 x 4mm ²	4x4mm ² 6x2,5mm ² 1x4mm ² + 2x2,5mm ² + +3x1,5mm ² 1x4mm ² + 5x1,5mm ² 2x4mm ² + 3x2,5mm ²
RK 01/744		cable glands 6xM25 for cable ϕ 6-15mm	7 - 4 x 4mm ²	
RK 01/544-E		2 x M32 cable glands for armoured cable ϕ 23-32mm 4 x M25 cable glands for armoured cable ϕ 17-23mm	5 - 4x 6mm ²	

Other configuration available on request

DIMENSIONS





APPLICATION

Explosion proof junction box type JBX 01 is empty Ex d enclosure (component) in which are installed industry-standard performance equipment (low voltage switching devices, electrical appliances) .

The junction box is intended for use in places with an explosive gas and dust atmosphere. The junction box is designed for use in the industrial areas and facilities, indoor and outdoor spaces.

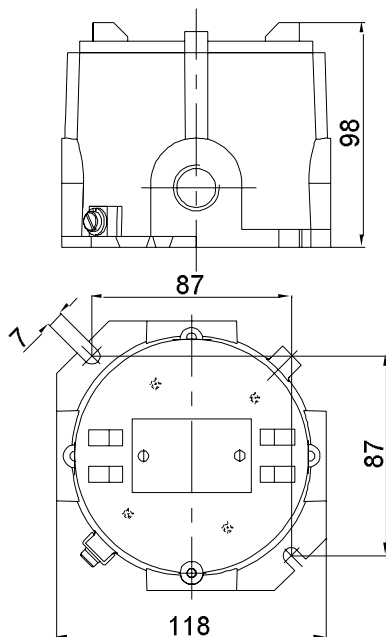
CONSTRUCTION

Enclosure: corrosion resistant grey polyurethanes painted aluminium color RAL 7000
Gasket: Silicon

TECHNICAL DATA

Certificate:	EXA 13 ATEX 0003U
Marking:	CE 0722
Apparatus category:	II 2G II 2D
Marking of explosion protection:	Ex d IIC Gb Ex tb IIIC Db
Ambient temperature:	-20°C ≤ Ta ≤ +60°C
Service temperature:	-20°C ≤ Ta ≤ +80°C
Degree of protection:	IP 66 category 1
Protection class :	I (protective earthing)
External earthing terminal:	max. 2 x 6 mm ²
Color:	Gray, RAL 7001
Weight:	1,0 kg

DIMENSION



MODEL CODE

TYPE	No. of entries/side	Entries
JBX 01/11	2 / B-D	M20x1,5 - ISO 261
JBX 01/12	3 / B-C-D	
JBX 01/13	4 / A-B-C-D	
JBX 01/31	2 / B-D	3/4" - NPT - ANSI ASME B1.20.1
JBX 01/32	3 / B-C-D	
JBX 01/33	4 / A-B-C-D	
JBX 01/41	2 / B-D	1/2" - NPT - ANSI ASME B1.20.1
JBX 01/42	3 / B-C-D	
JBX 01/43	4 / A-B-C-D	



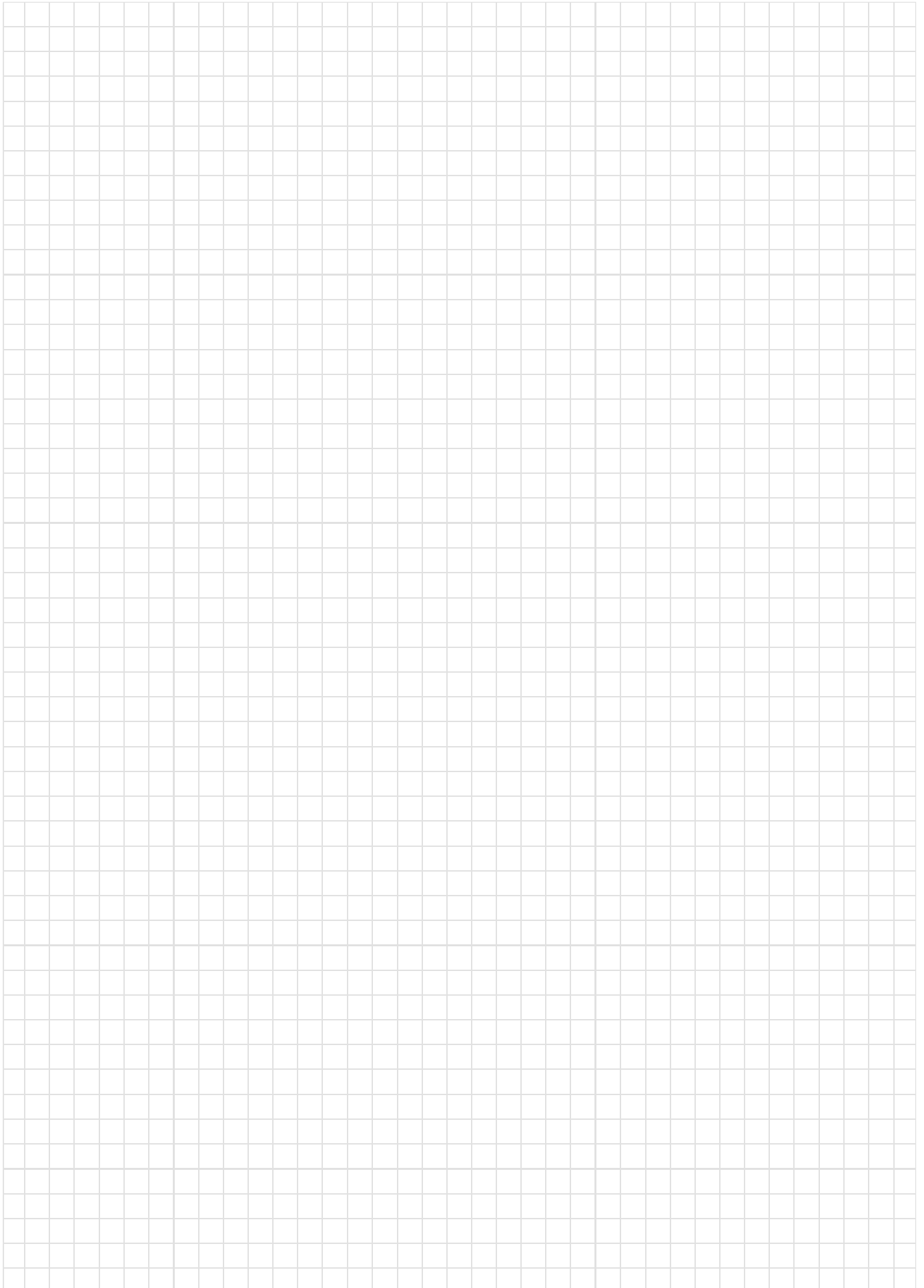
EXA 13 ATEX 0003U

CE 0722

IP 66

-20°C

+60°C



**APPLICATION**

The terminal boxes are intended for the distribution of electrical energy, e.g. light circuits, heating circuits, control circuits, intrinsically safe circuits in places with an explosive gas and dust atmosphere, in hazardous areas 1, 2, 21, 22. Enclosure of glass fiber-reinforced polyester resin can be supplied in 7 sizes with various heights and they are suitable for fixed mounting. The terminal boxes are fitted to order with terminals and cable glands. For armored cables all terminal boxes are available with internal metal plate and cable glands for armored cables.

CONSTRUCTION

Enclosure: SMC glass fiber reinforced polyamide, color - black

Cover: SMC glass fiber reinforced polyamide with integrated thermoplastic elastomer gasket, closes with four M5/M6 stainless steel screws.

TECHNICAL DATA

Certificate:	EXA 15 ATEX 0044
Marking:	CE 0722
Apparatus category:	II 2G II 2D
Marking of explosion protection:	II 2G Ex e IIC T6 Gb II 2G Ex ia/ib IIC T6 Gb II 2G Ex e ia/ib IIC T6 Gb
Ambient temperature:	-20°C ≤ Ta ≤ +50°C
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 07
Protection class:	I (protective earthing)
Rated voltage:	Up to 750 V AC
Rated current:	In accordance with table
Surface resistance:	< 10 ⁹ Ω
Rated cross-section:	max. nominal cross-section 50 mm ²
N/PE rails inside the Enclosure:	2 pcs, 11 terminals 2x4mm ² max.
Weight (without cable glands):	SKX 12/E 0,5kg SKX 13/E 0,7kg SKX 14/E 1,0kg SKX 15/E 1,0 - 1,5kg SKX 16/E 3,5kg SKX 18/E 4,5kg SKX 20/E 7,0kg

MOUNTING

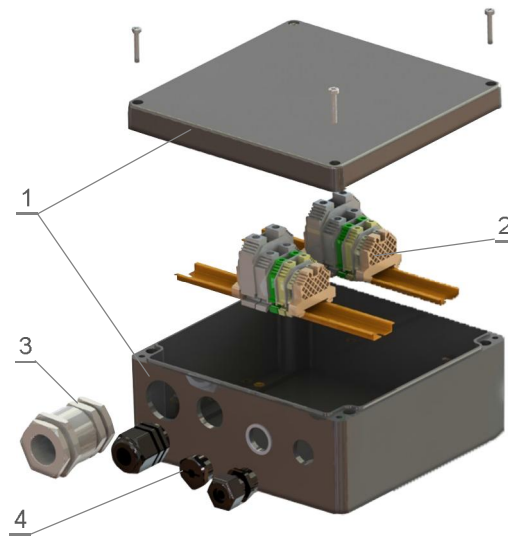
With two/four screws through the housing holes φ6 mm at the peaks the rectangle:

SKX 12: 75 x 50 mm	SKX 16: 235 x 200 mm
SKX 13: 75 x 100 mm	SKX 18: 380 x 200 mm
SKX 14: 75 x 150 mm	SKX 20: 580 x 200 mm
SKX 15: 125 x 150 mm	



SPARE PARTS AND ACCESSORIES

1. Enclosure, cover gasket
2. Ex e terminals
3. Ex e cable glands (metal, plastic)
4. Ex e plugs



Terminal box SKX 12/E

Explosion protected terminal box type SKX 12/E, are intended for connection and distribution cables up to the nominal cross section of 4mm^2 .

Conductor connection to the terminals:

$2,5\text{ mm}^2$; 1×1 – $2,5\text{ mm}^2$ and 2×1 – 1 mm^2
 4 mm^2 ; 1×1 – 4 mm^2 and 2×1 – $1,5\text{ mm}^2$

Length of removing insulation on the conductor and torque tightening the screw terminals:

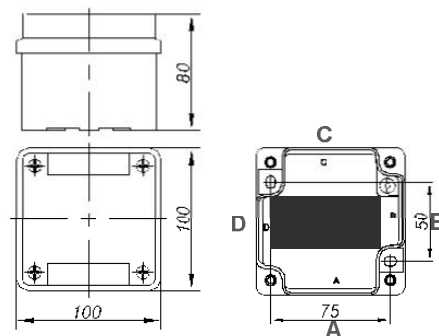
$2,5\text{ mm}^2$ - 10 mm - 0,5 Nm
 4 mm^2 - 10 mm - 0,6 Nm

Max. number of line-up terminals wich can be fitted in SKX 12/E01:
 5+2 PE terminals - 4mm^2 , max rated current 20A

Max. number of mounted cable entries:

DIMENSIONS [mm]

Cable gland Side	M16	M20	M25
A-C	2	2	1
B-D	1	1	1



Terminal box SKX 13/E

Explosion protected terminal box type SKX 13/E, are intended for connection and distribution cables up to the nominal cross section of 6mm².

Conductor connection to the terminals:
 2,5 mm²; 1 x 1 – 2,5 mm² and 2 x 1 – 1 mm²
 4 mm²; 1 x 1 – 4 mm² and 2 x 1 – 1,5 mm²
 6 mm²; 1 x 1 – 6 mm² and 2 x 1 – 2,5 mm²

Length of removing insulation on the conductor and torque tightening the screw terminals:
 2,5 mm²- 10 mm - 0,5 Nm
 4 mm²- 10 mm - 0,6 Nm
 6 mm²- 12 mm - 1,2 Nm

Max. number of line-up terminals which can be fitted in SKX 13/E:

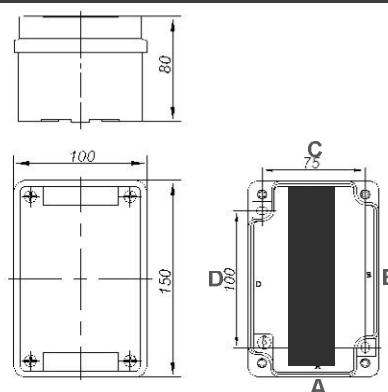
SKX 13/E01 - 8+2 PE terminals - 4mm², max rated current 20A

SKX 13/E02 - 8+2 PE terminals - 6mm², max rated current 25A

Max. number of mounted cable entries:

DIMENSIONS [mm]

Cable gland Side	M16	M20	M25
A-C	2	2	1
B-D	4	3	2



Terminal box SKX 14/E

Explosion protected terminal box type SKX 14/E, are intended for connection and distribution cables up to the nominal cross section of 6mm².

Conductor connection to the terminals:
 2,5 mm²; 1 x 1 – 2,5 mm² and 2 x 1 – 1 mm²
 4 mm²; 1 x 1 – 4 mm² and 2 x 1 – 1,5 mm²
 6 mm²; 1 x 1 – 6 mm² and 2 x 1 – 2,5 mm²

Length of removing insulation on the conductor and torque tightening the screw terminals:
 2,5 mm²- 10 mm - 0,5 Nm
 4 mm²- 10 mm - 0,6 Nm
 6 mm²- 12 mm - 1,2 Nm

Max. number of line-up terminals which can be fitted in SKX 13/E:

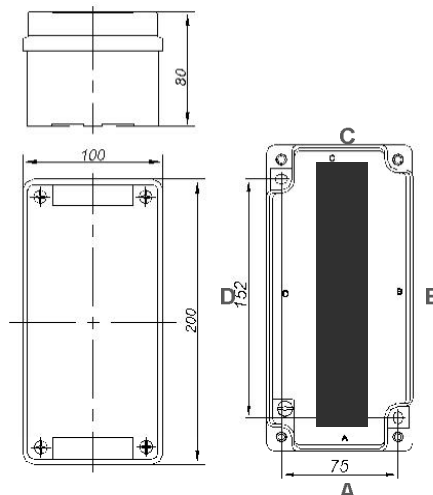
SKX 14/E01 - 16+4 PE terminals - 4mm², max rated current 20A

SKX 14/E02 - 16+4 PE terminals - 6mm², max rated current 25A

Max. number of mounted cable entries:

DIMENSIONS [mm]

Cable gland Side	M16	M20	M25	M32
A-C	2	2	1	1
B-D	6	4	3	2



**Terminal box SKX 15/E**

Explosion protected terminal box type SKX 15/E, are intended for connection and distribution cables up to the nominal cross section of 25mm².

Conductor connection to the terminals:

2,5 mm ² ; 1 x 1	–	2,5 mm ²	and	2 x 1	–	1 mm ²
4 mm ² ; 1 x 1	–	4 mm ²	and	2 x 1	–	1,5 mm ²
6 mm ² ; 1 x 1	–	6 mm ²	and	2 x 1	–	2,5 mm ²
10 mm ² ; 1 x 1,5	–	10 mm ²	and	2 x 1,5	–	4 mm ²
16 mm ² ; 1 x 1,5	–	16 mm ²	and	2 x 1,5	–	4 mm ²
25 mm ² ; 1 x 1,5	–	25 mm ²	and	2 x 1,5	–	4 mm ²

Length of removing insulation on the conductor and torque tightening the screw terminals:

2,5 mm ²	–	10 mm	–	0,5 Nm
4 mm ²	–	10 mm	–	0,6 Nm
6 mm ²	–	12 mm	–	1,2 Nm
10 mm ²	–	12 mm	–	2,0 Nm
16 mm ²	–	14 mm	–	3,0 Nm
25 mm ²	–	14 mm	–	3,0 Nm

Terminal fittings, number of conductors which can be fitted depending on conductor cross-section and continues current

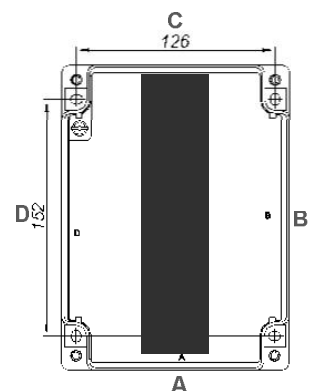
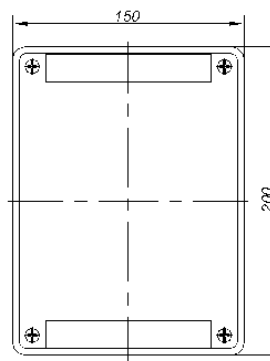
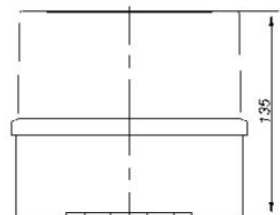
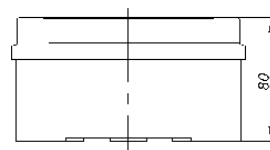
Max. current [A]	CROSS SECTION [mm ²]					
	Rated cross section of conductors - rated cross section of terminals					
	2,5	4	6	10	16	25
13	48					
16	8	48				Allowed combinations
18	4	24	48			
21		8	32	42		
33			8	24	42	
50				8	24	16
63	Unallowable combinations				8	8
77	Unallowable combinations					4
Max. number of terminals depending of the enclosure size	24 + rails 2x24 PE	24 + rails 2x24 PE	16	14	12	8

Max. number of mounted cable entries:**DIMENSIONS [mm]**

Side	Cable gland	M16	M20	M25	M32	M40
A-C		4	3	2	2	1
B-D		6	4	3	2	2

Side	Cable gland	M16	M20	M25	M32	M40
A-C		4	3	2	2	1
B-D		5	3	3	-	-

*with N/PE rails



Terminal box SKX 16/E

Explosion protected terminal box type SKX 16/E, are intended for connection and distribution cables up to the nominal cross section of 35mm².

Conductor connection to the terminals:

2,5 mm ² ; 1 x 1	-	2,5 mm ²	and	2 x 1	-	1 mm ²
4 mm ² ; 1 x 1	-	4 mm ²	and	2 x 1	-	1,5 mm ²
6 mm ² ; 1 x 1	-	6 mm ²	and	2 x 1	-	2,5 mm ²
10 mm ² ; 1 x 1,5	-	10 mm ²	and	2 x 1,5	-	4 mm ²
16 mm ² ; 1 x 1,5	-	16 mm ²	and	2 x 1,5	-	4 mm ²
25 mm ² ; 1 x 1,5	-	25 mm ²	and	2 x 1,5	-	4 mm ²
35 mm ² ; 1 x 2,5	-	35 mm ²	and	2 x 2,5	-	6 mm ²

Length of removing insulation on the conductor and torque tightening the screw terminals:

2,5 mm ²	-	10 mm	-	0,5 Nm
4 mm ²	-	10 mm	-	0,6 Nm
6 mm ²	-	12 mm	-	1,2 Nm
10 mm ²	-	12 mm	-	2,0 Nm
16 mm ²	-	14 mm	-	3,0 Nm
25 mm ²	-	14 mm	-	3,0 Nm
35 mm ²	-	17 mm	-	5,0 Nm

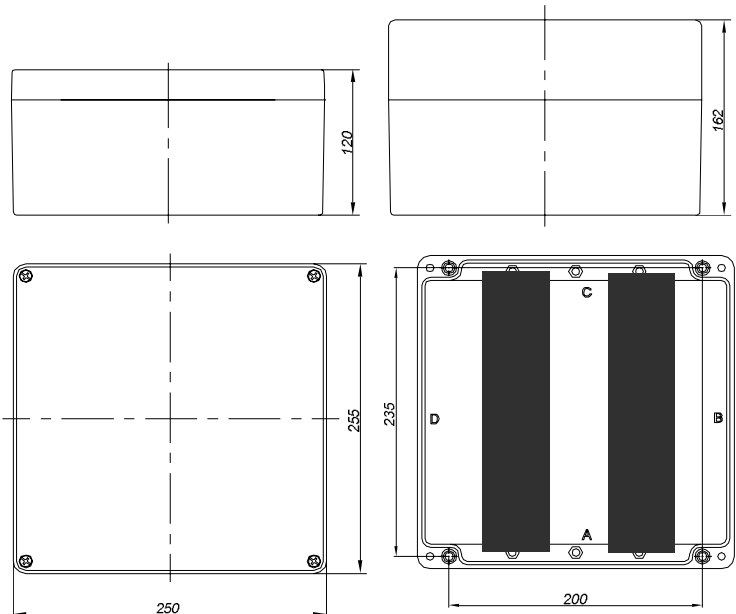
Terminal fittings, number of conductors which can be fitted depending on conductor cross-section and continues current

Max. current [A]	CROSS SECTION [mm ²]													
	Rated cross section of conductors - rated cross section of terminals													
	2,5	4	6	10	16	25	35							
6	Allowed combinations													
10								140						
14								72	122					
20										60	80			
27											44	78		
40												36		
54								Unallowable combinations				54		
69												30	48	32
96													30	20
Max. number of terminals depending of the enclosure size								80	66	57	44	16	16	12
	double row assembly				single row assembly									

Max. number of mounted cable entries:

DIMENSIONS [mm]

Side	Cable gland	M20	M25	M32	M40	M50	M63
B-D		9	9	5	3	3	2
A-C		7	5	3	3	-	-



**Terminal box SKX 18/E**

Explosion protected terminal box type SKX 18/E, are intended for connection and distribution cables up to the nominal cross section of 70mm².

Conductor connection to the terminals: 35 mm²; 1 x 2,5–35 mm² and 2 x 2,5–6 mm²
50
70

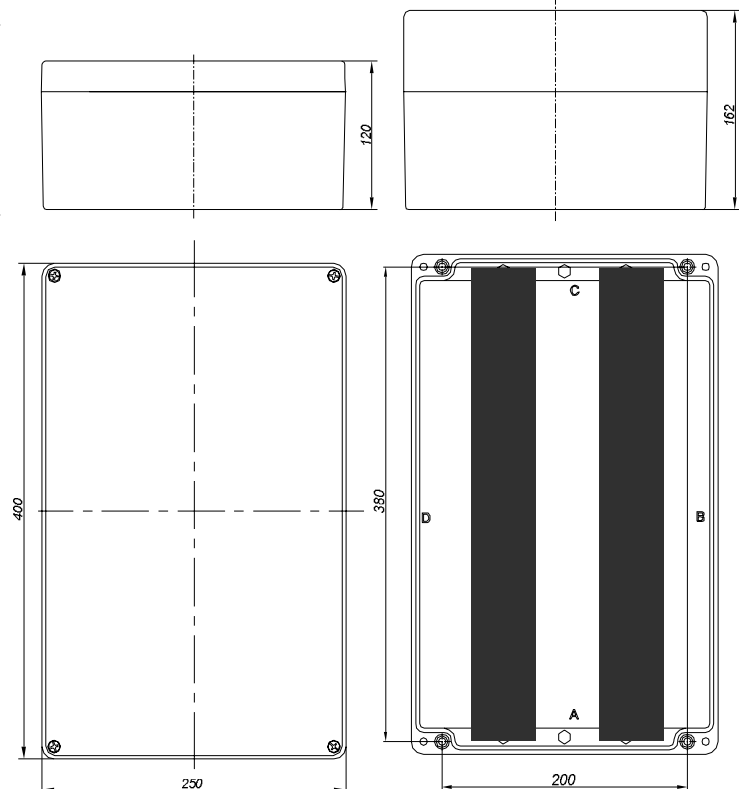
Length of removing insulation on the conductor and torque tightening the screw terminals: 35 mm² - 17 mm - 5,0 Nm
50
70

Terminal fittings, number of conductors which can be fitted depending on conductor cross-section and continues current

Max. current [A]	CROSS SECTION [mm ²] Rated cross section of conductors - rated cross section of terminals								
	2,5	4	6	10	16	25	35	50	70
6	264								
10	216	244							
13	128	206							
18		108	166						
26			108	136					
38				64	96				
52	Unallowable combinations				52	86			
67						52	72		
90							40	52	24
116								32	8
Max. number of terminals depending of the enclosure size	128	106	92	70	52	25	25	12	8
	double row assembly					single row assembly			

Max. number of mounted cable entries:**DIMENSIONS [mm]**

Side	Cable gland	M20	M25	M32	M40	M50	M63
B-D		15	15	9	6	5	4
A-C		7	5	3	3	-	-



Terminal box SKX 20/E

Explosion protected terminal box type SKX 20/E, are intended for connection and distribution cables up to the nominal cross section of 70mm².

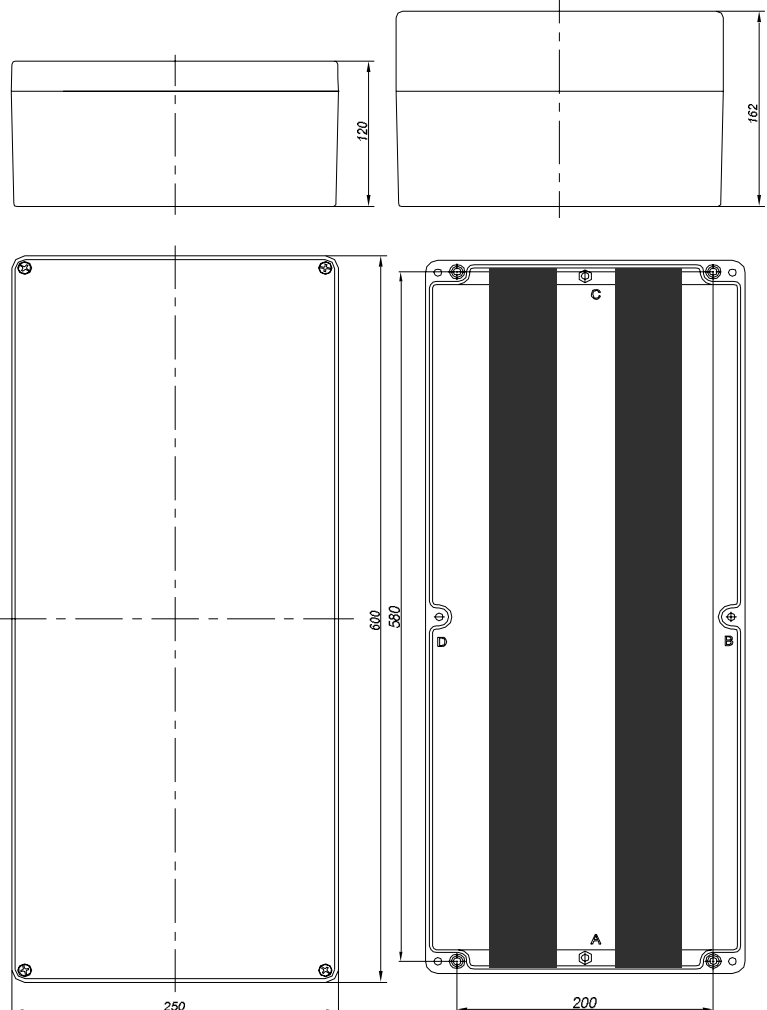
Terminal fittings, number of conductors which can be fitted depending on conductor cross-section and continues current

Max. current [A]	CROSS SECTION [mm ²]								
	Rated cross section of conductors - rated cross section of terminals								
	2,5	4	6	10	16	25	35	50	70
10	288								
12	200	304							
16		172	272						
23			132	218					
34				100	158				
48					80	132			
62	Unallowable combinations					80	106		
83							60	82	36
105								52	24
Max. number of terminals depending of the enclosure size	128	106	92	70	52	25	25	12	8
	double row assembly					single row assembly			

Max. number of mounted cable entries:

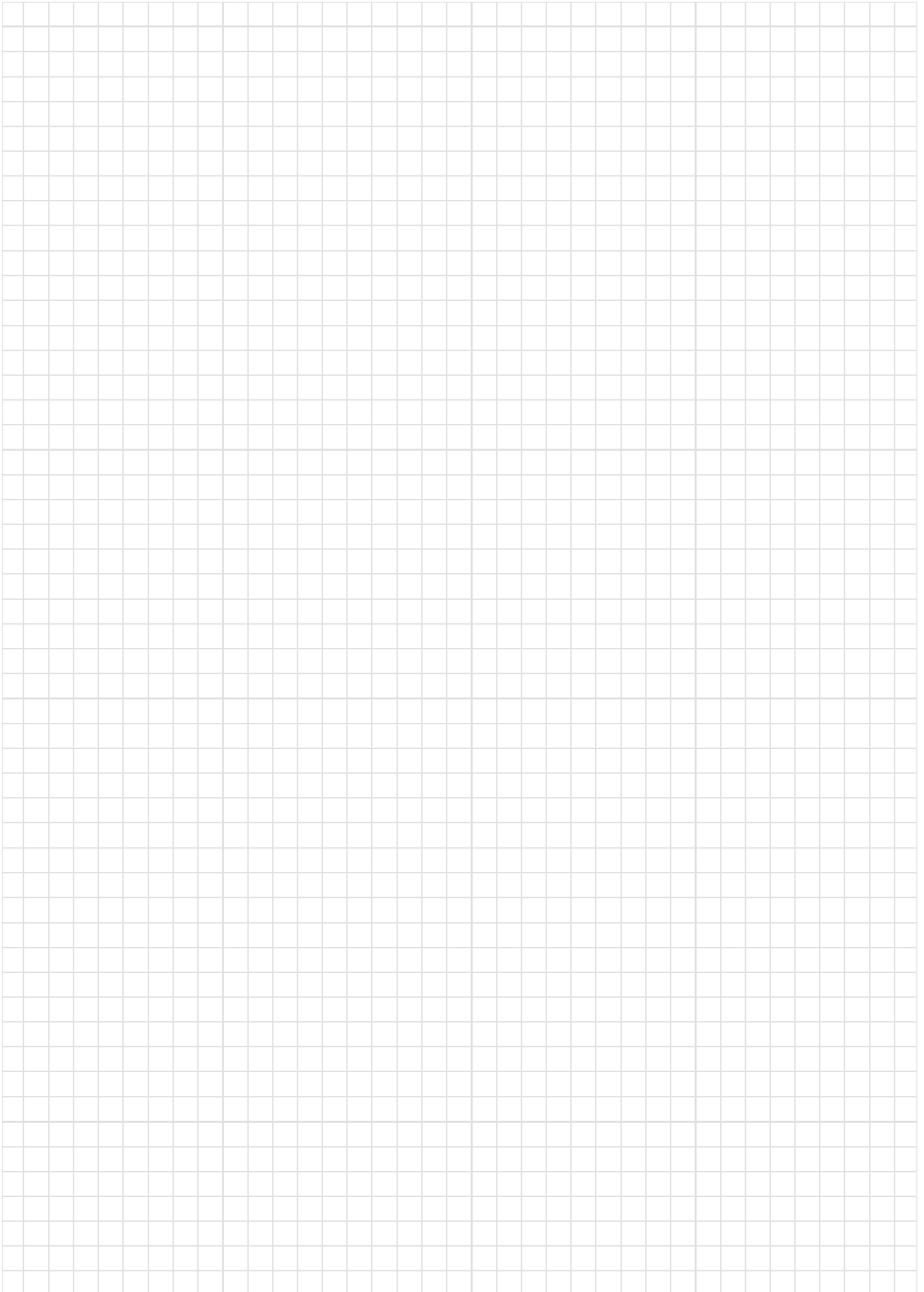
DIMENSIONS [mm]

Side	Cable gland	M20	M25	M32	M40	M50	M63
B-D		22	22	12	8	6	6
A-C		7	5	3	3	-	-





EXA 15 ATEX 0044





APPLICATION

Ex stainless steel terminal boxes are intended for carrying and distributing electrical power in places with an explosive gas and dust atmosphere. The SS terminal boxes are designed for use in the industrial areas and facilities, indoor and outdoor spaces.

CONSTRUCTION

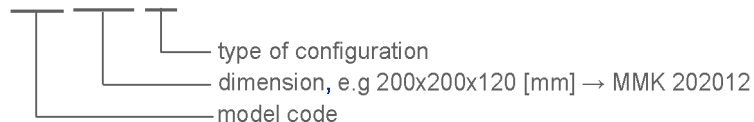
Enclosure: Stainless steel AISI 316L, brush finished, thickness 1.5mm
Gasket: EPDM formed gasket

TECHNICAL DATA

Certificate:	EXA 13 ATEX 0053U
Marking:	CE 0722
Apparatus category:	II 2G II 2D
Marking of explosion protection:	Ex e II T6, Ex e ia IIC T6, Ex ia IIC T6 tD A21 T80°C
Ambient temperature:	$-40^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
Degree of protection:	IP 66 category 1
Resistance to shock:	IK 10
Protective class:	I (protective earthing)
Cable entries:	according to specification
Protection class:	I (protective earthing)

MODEL CODE (for empty enclosure)

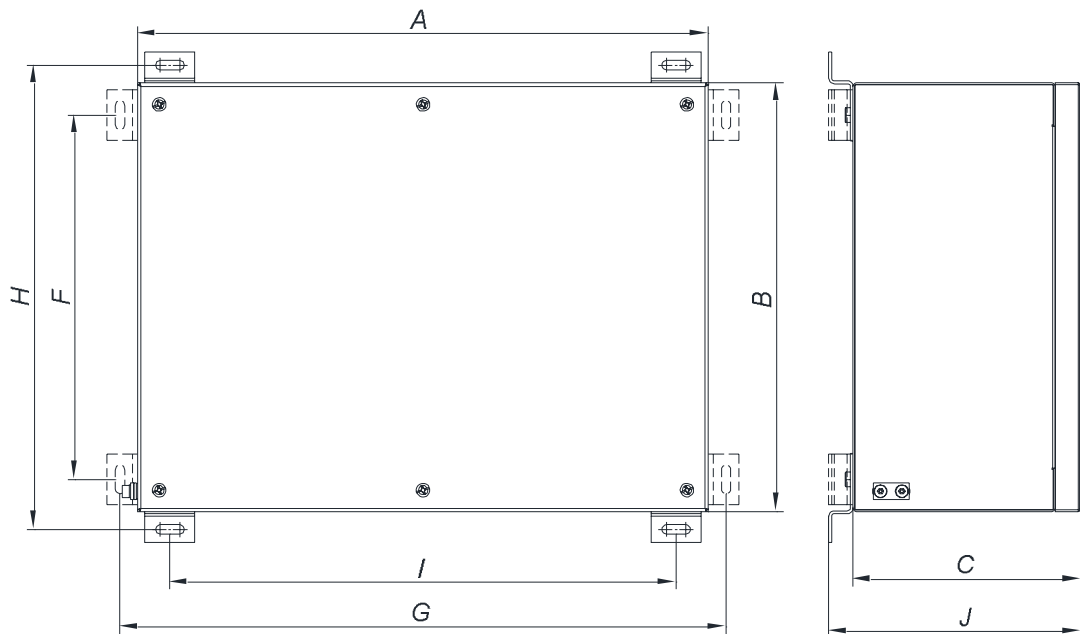
MMK / ..



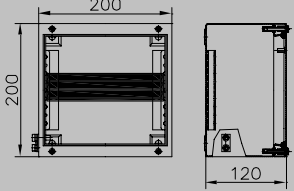
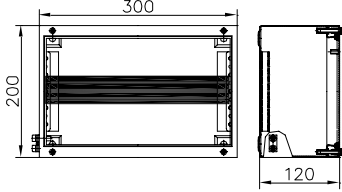
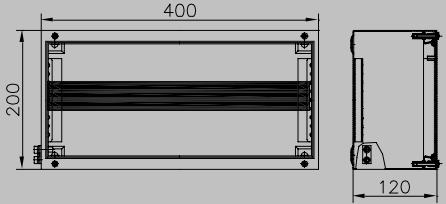
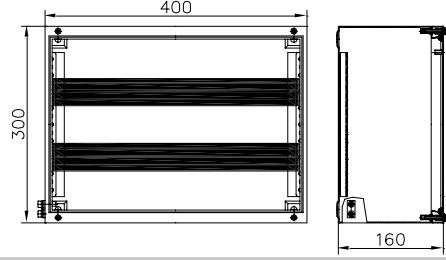
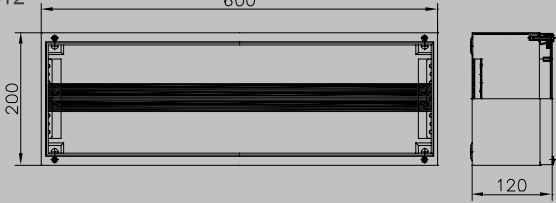


DIMENSION [mm]

MMK	A	B	C	F	G	H	I	J	[kg]
202012	200	200	120	152	225	222	155	138	2,8
302012	300	200	120	152	325	322	255	138	3,1
302016	300	200	160	152	325	322	255	178	3,8
402012	400	200	120	152	425	422	355	138	4,8
402016	400	200	160	152	425	422	355	178	5
403012	400	300	120	252	425	422	355	138	5,4
403016	400	300	160	252	425	422	355	178	5,8
602012	600	200	120	152	625	622	555	138	5,6
602016	600	200	160	152	625	622	555	178	7,1
604016	600	400	160	352	625	622	555	178	12,1



Terminal boxes up to 35 mm²

TYPE	Cross section [mm ²] Max. current [A]	Max. number of terminals					
		2.5	4	6	10	16	35
SKX 202012		30	25	19	15	12	-
SKX 302012		50	42	31	25	21	16
SKX 402012		70	58	44	35	29	22
SKX 403016		140	116	88	70	58	44
SKX 602012		110	92	69	56	46	34