klimaoprema
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DATASHEET

INTERLOCK JUNCTION BOX

SKI-2.0

Revision: rev. A
Date: 11.11.2025.

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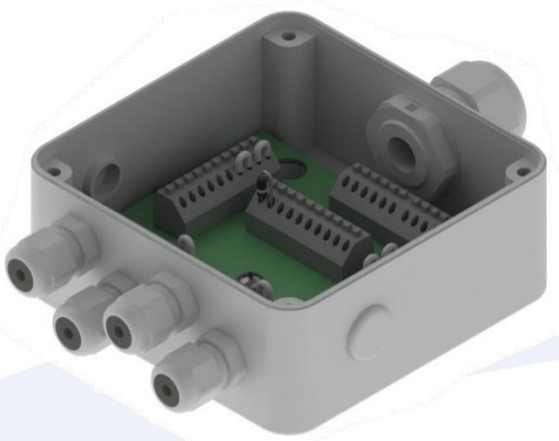
Interlock junction box SKI-2.0 - C00002131

The interlock junction box is used to connect interlock components placed on the door, such as semaphores, magnetic door sensors, electromagnetic locks, etc. to the interlock control cabinet. The junction box has 4xM12 and 1xM20 cable glands and two spare holes with diameter of 12mm, sealed with rubber plug. Cable glands M12 are used for semaphores, magnetic door sensors and electromagnetic locks. The M20 cable gland is used for the cable from the control cabinet. M12 cable glands can be added to the spare holes if required (e.g., for double-leaf doors where each leaf has its own door status sensor, when using an external door unlock push button, etc.).

CABLE GLAND M12	
Cable diameter	3 – 6,5 mm
CABLE GLAND M20	
Cable diameter	6 – 14 mm

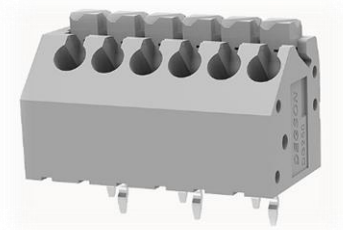
Cable diameter range for cable glands M12 and M20

Inside the junction box terminals X1, X2, X3, X4 and X5 are placed.



Junction box SKI-2.0 without lid

The cable from the control cabinet is connected to terminals X1. Components such as door status sensors, electromagnetic lock, and door unlock push buttons are connected to terminals X2. Terminals X3 and X4 are used for connecting semaphores. Terminals X5:1 and 2 are used for connecting a protective (flyback) diode, while X5:A and B can be used as a bus, for example, to supply power for contactless switch.



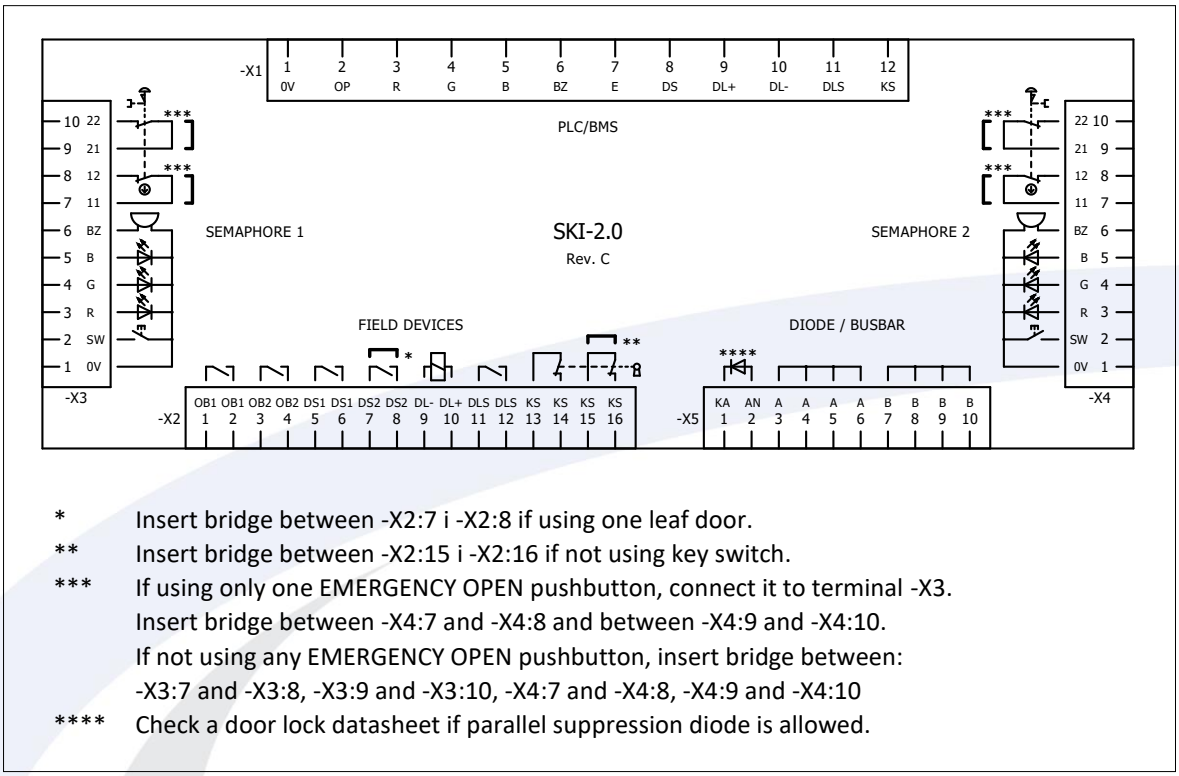
6-pole terminal

No tool is required to connect solid conductors or fine-stranded conductors with ferrules. A flat-blade screwdriver 3,5x0,5 is required for disconnection.

Terminal type	Push-in (push button)
Rated current	10 A
Solid conductor	0,2 ... 1,5 mm²
Fine-stranded conductor with ferrule	0,25 ... 1 mm²
Strip length	8-10 mm

Technical characteristics of terminals

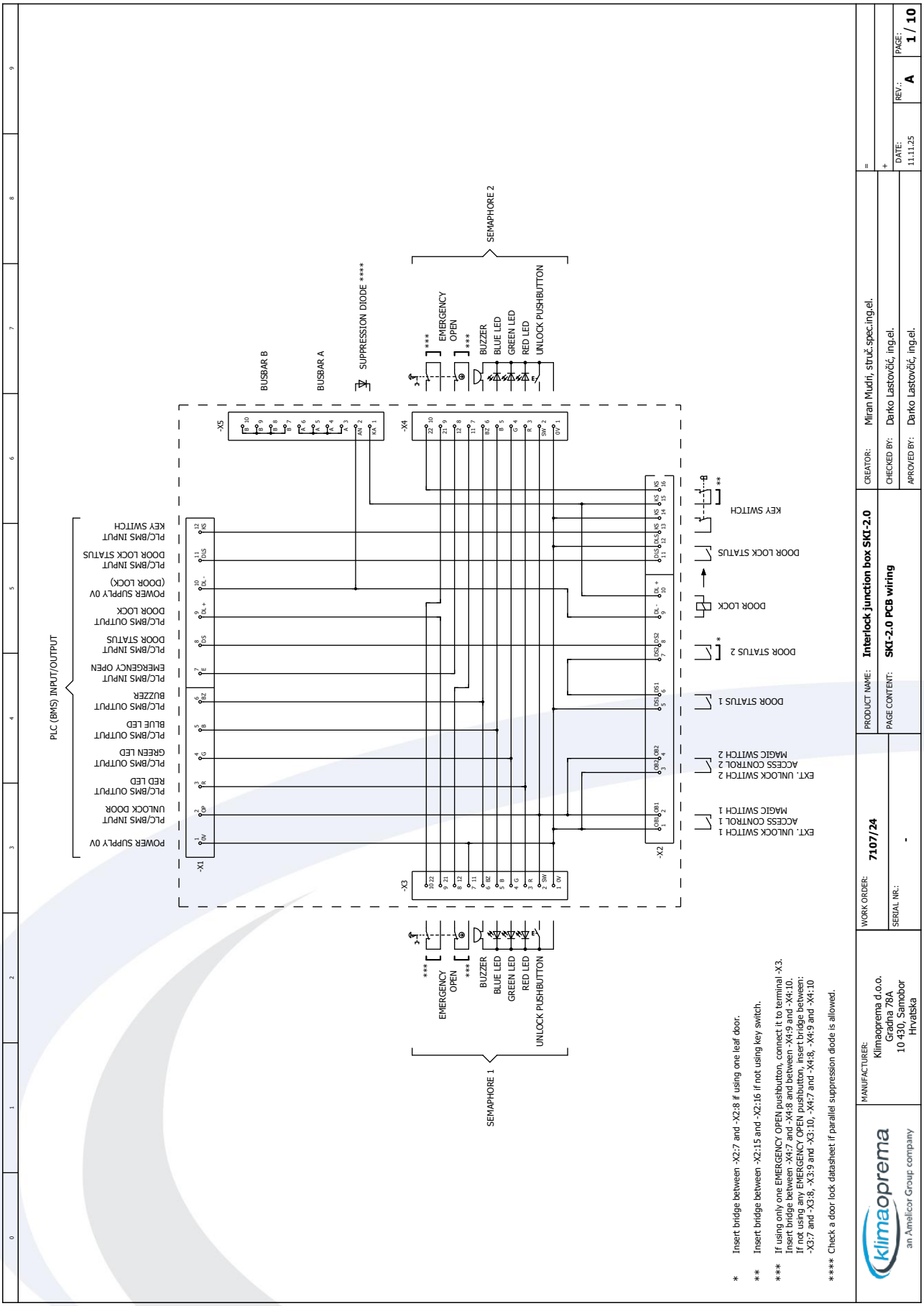
The junction box comes with jumpers (6 pcs.) and a protective diode. The jumpers should be installed/removed depending on what is connected to the junction box. The protective diode can be removed if necessary, if the electromagnetic lock requires it (check the electromagnetic lock data sheet).
On the inside of the junction box lid, there is a label showing the terminal layout and instructions for installing jumpers.



* Insert bridge between -X2:7 i -X2:8 if using one leaf door.
** Insert bridge between -X2:15 i -X2:16 if not using key switch.
*** If using only one EMERGENCY OPEN pushbutton, connect it to terminal -X3.
Insert bridge between -X4:7 and -X4:8 and between -X4:9 and -X4:10.
If not using any EMERGENCY OPEN pushbutton, insert bridge between:
-X3:7 and -X3:8, -X3:9 and -X3:10, -X4:7 and -X4:8, -X4:9 and -X4:10
**** Check a door lock datasheet if parallel suppression diode is allowed.

Label on the inside of the junction box lid

Attached below is the schematic of the junction box PCB, the options for connecting interlock components to the junction box, and an example of the wiring diagram for one door.



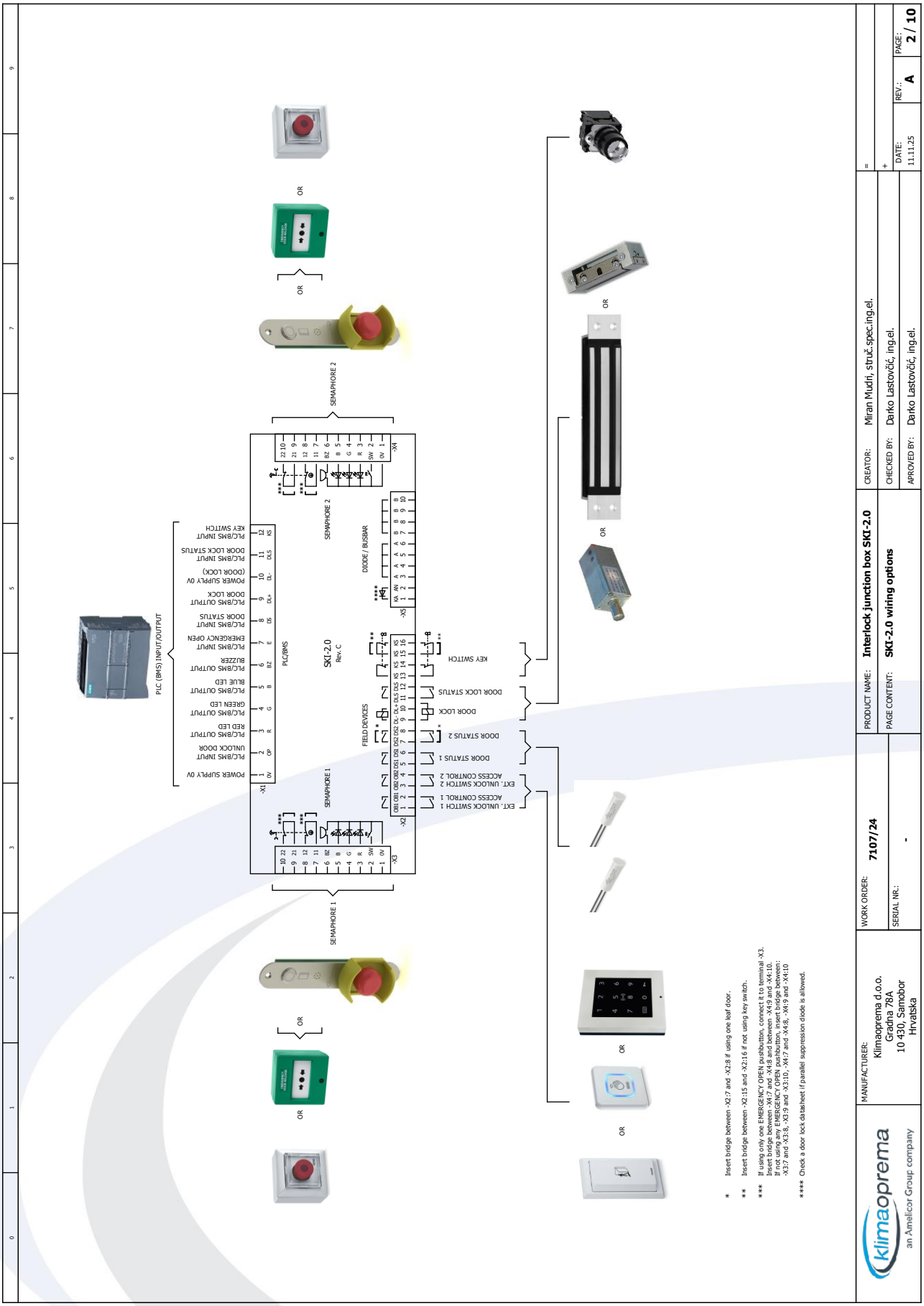
* Insert bridge between -X2:7 and -X2:8 if using one leaf door.

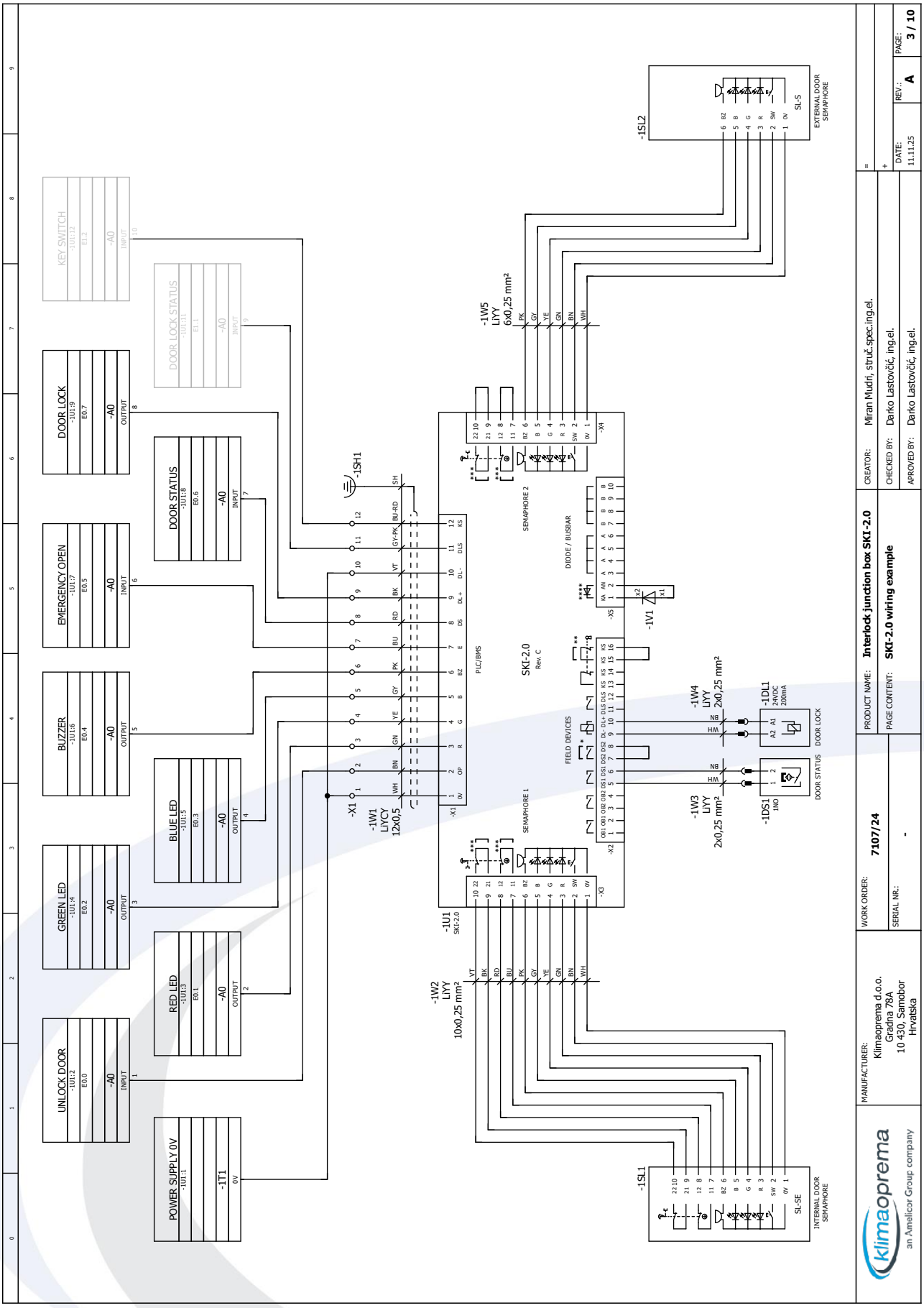
** Insert bridge between -X2:15 and -X2:16 if not using key switch.

*** If using only one EMERGENCY OPEN pushbutton, connect it to terminal -X3.
Insert bridge between -X4:7 and -X4:8 and between -X4:9 and -X4:10.
If not using any EMERGENCY OPEN pushbutton, insert bridge between:
-X3:7 and -X3:8, -X3:9 and -X3:10, -X4:7 and -X4:8, -X4:9 and -X4:10

**** Check a door lock datasheet if parallel suppression diode is allowed.

MANUFACTURER: Klimaoprema d.o.o. Gradna 78A 10 430, Samobor Hrvatska	WORK ORDER: 7107/24	PRODUCT NAME: Interlock junction box SKI-2.0	CREATOR: Miran Mudri, struč.spec.ing.el.
	SERIAL NR.: -	PAGE CONTENT: SKI-2.0 PCB wiring	CHECKED BY: Darko Lastovčić, ing.el.
			APROVED BY: Darko Lastovčić, ing.el.
			DATE: 11.11.25
			REV.: A
			PAGE: 1 / 10




KEY SWITCH
-1U1:12
E1.2
-A0
INPUT
10
DOOR LOCK STATUS
-1U1:11
E1.1
-A0
INPUT
9
DOOR LOCK
-1U1:9
E0.7
-A0
OUTPUT
8
DOOR STATUS
-1U1:8
E0.6
-A0
INPUT
7
EMERGENCY OPEN
-1U1:7
E0.5
-A0
INPUT
6
BUZZER
-1U1:6
E0.4
-A0
OUTPUT
5
BLUE LED
-1U1:5
E0.3
-A0
OUTPUT
4
GREEN LED
-1U1:4
E0.2
-A0
OUTPUT
3
RED LED
-1U1:3
E0.1
-A0
OUTPUT
2
UNLOCK DOOR
-1U1:2
E0.0
-A0
INPUT
1
POWER SUPPLY 0V
-1U1:1
-1T1
0V
-1SH1
-1W1
LIYCY
12x0,5
-X1
-1W2
LIYY
10x0,25 mm²
-1U1
SKI-2.0
-1W3
LIYY
2x0,25 mm²
-1W4
LIYY
2x0,25 mm²
-1W5
LIYY
6x0,25 mm²
-1V1
-1DL1
24VDC
200mA
DOOR LOCK
-1DS1
1NO
DOOR STATUS
-1SL1
INTERNAL DOOR
SEMAPHORE
SL-SE
-1SL2
EXTERNAL DOOR
SEMAPHORE
SL-S
SEMAPHORE 1
SEMAPHORE 2
DIODE / BUSBAR
FIELD DEVICES
PLC/BMS
SKI-2.0
Rev. C
MANUFACTURER:
Klimaoprema d.o.o.
Gradna 78A
10 430, Samobor
Hrvatska
WORK ORDER:
7107/24
SERIAL NR.:
-
PRODUCT NAME:
Interlock junction box SKI-2.0
PAGE CONTENT:
SKI-2.0 wiring example
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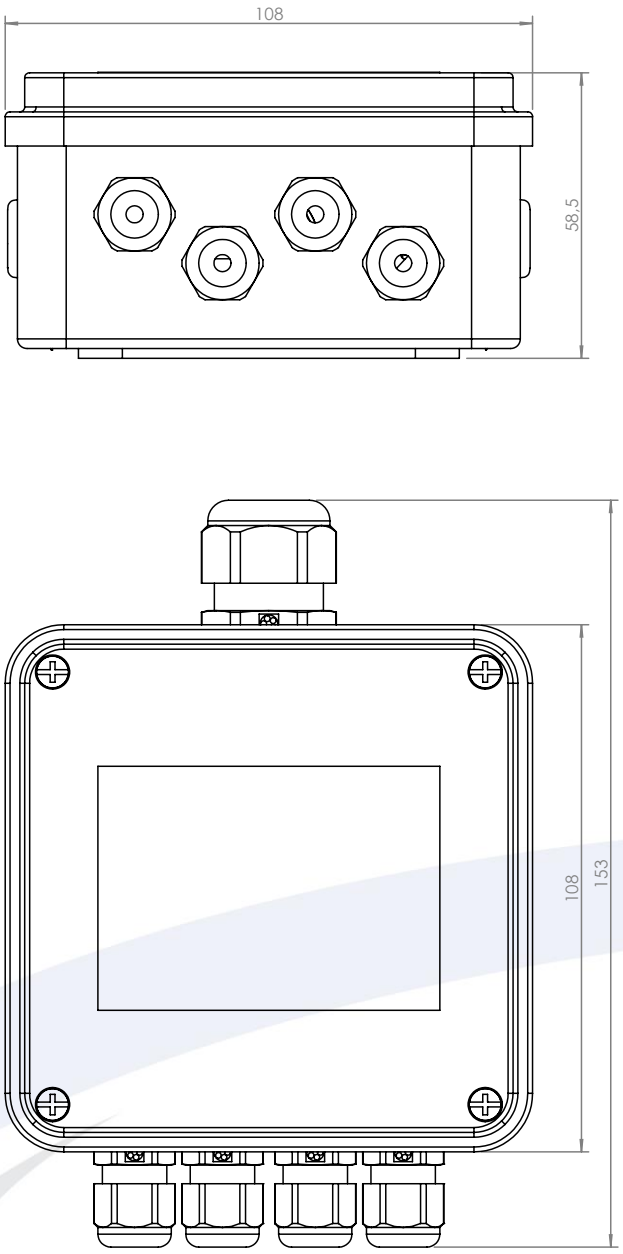
Interlock junction box dimensions

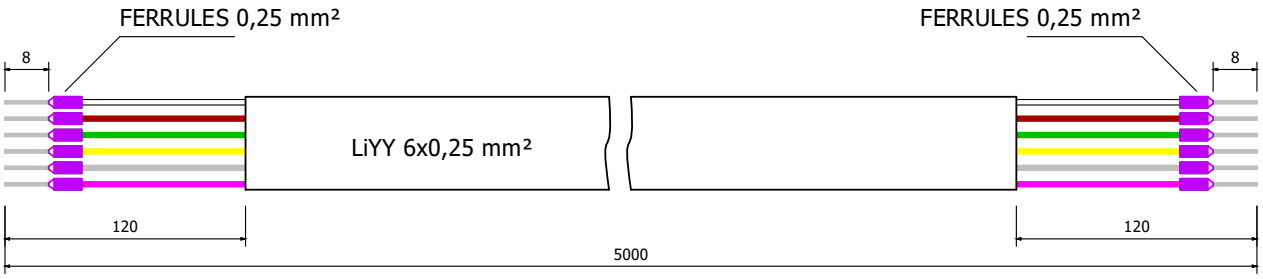


Interlock junction box SKI-2.0 dimensions

Accessories

Semaphore cable SL-xx 6P - 10071192

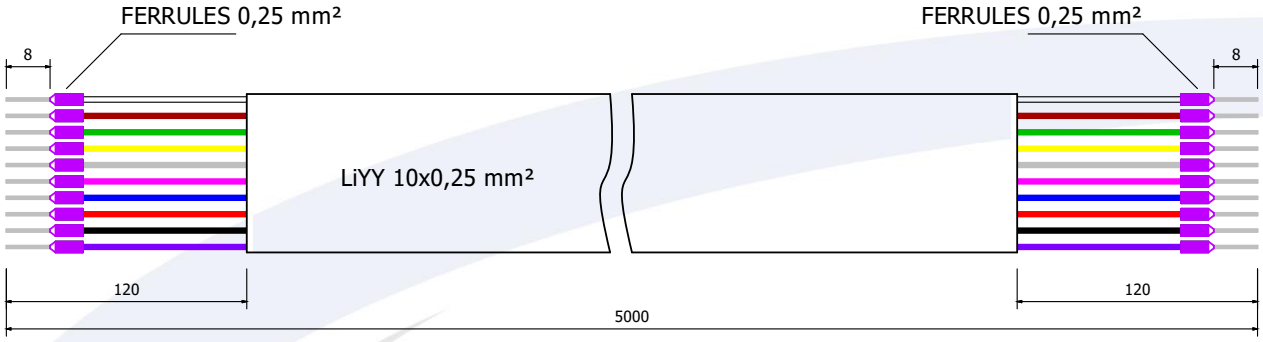
The cable is used to connect semaphores without an emergency push button (SL, SL-S) and the junction box.



Semaphore cable SL-xx 6P

Semaphore cable SL-xx 10P - 10071193

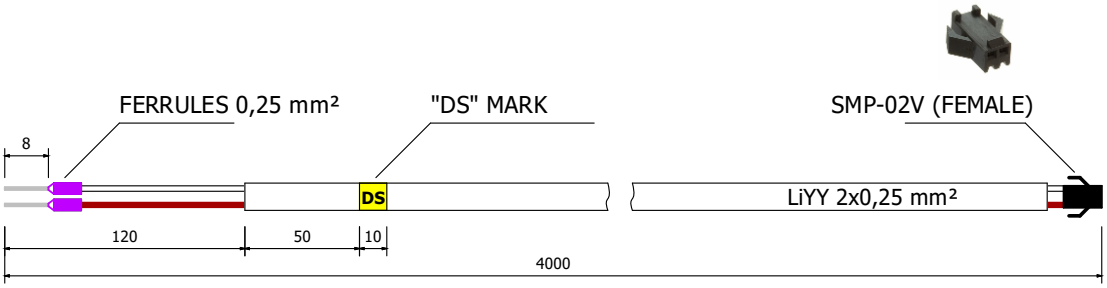
The cable is used to connect semaphores with an emergency push button (SL-E, SL-SE) and the junction box.



Semaphore cable SL-xx 10P

Cable „DS“ for magnetic door sensor - 10071190

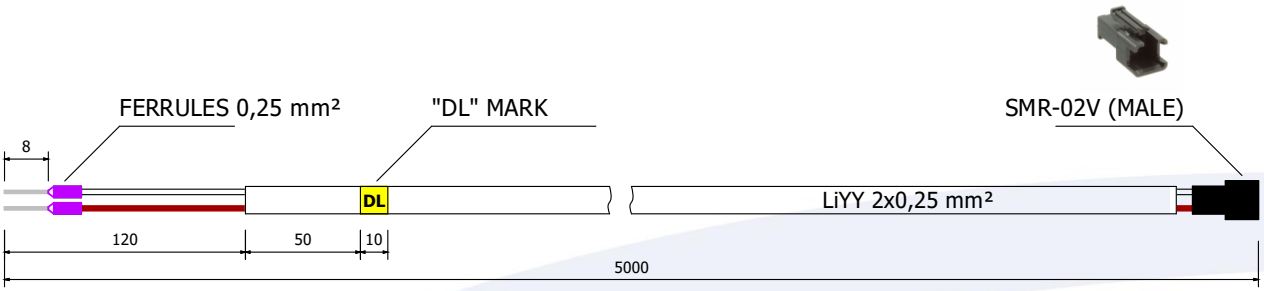
The cable is used to connect the magnetic door sensor and the junction box.



Cable „DS“ for magnetic door sensor

Cable „DL“ for electromagnetic lock - 10071191

The cable is used to connect the electromagnetic lock and the junction box.



Cable „DL“ for electromagnetic lock