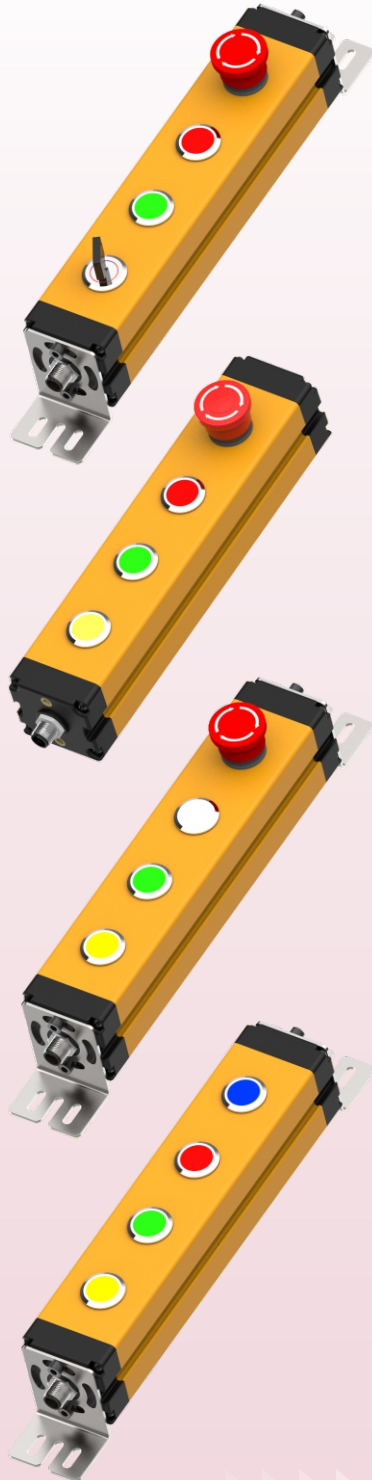




SBX button box

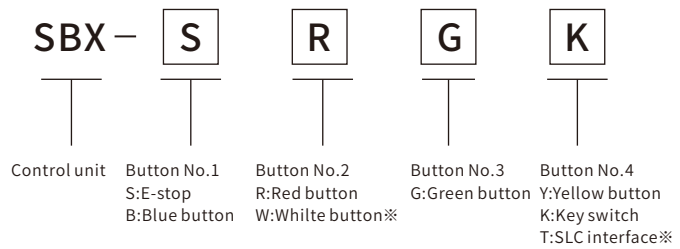


SBX series button box features

The SBX gate control unit can be used in safety circuits that comply with IEC/EN60947-5-5, EN ISO13850.

- ◆ Small size design
- ◆ With 12-pin M12 male connector
- ◆ Multiple mounting directions
- ◆ With emergency stop button, key switch, indicator switch
- ◆ There are a variety of optional models


Selection Guide



Model	Button attribute			
	Button No.1	Button No.2	Button No.3	Button No.4
SBX-SR GK	E-stop	Red button	Green button	Key revolve
	2NC/2NO	1NC/1NO	1NC/1NO	2NC/2NO
SBX-SR GY	E-stop	Red button	Green button	Yellow button
	2NC/2NO	1NC/1NO	1NC/1NO	1NC/1NO
SBX-SW GY	E-stop	White button※	Green button	Yellow button
	2NC/2NO	1NC/1NO	1NC/1NO	1NC/1NO
SBX-BR GY	Blue button	Red button	Green button	Yellow button
	1NC/1NO	1NC/1NO	1NC/1NO	1NC/1NO
SBX-SG RT※	E-stop	Green button	Red button	
	2NC/2NO	1NC/1NO	1NC/1NO	

※The white button is normally closed, and the rest of the buttons are normally open.

※The SBX-SG RT model can be directly matched with SLC products.



Danger

- ◆ Improper Use
 - ※ Any component, technical or electrical changes
 - ※ Use outside the area described in this manual
- ◆ Abuse
 - ※ Use of SBX button box (coolant, surface treatment, gas, etc.) under corrosive environmental conditions
 - ※ When using a button to operate a button or a key switch, use a different press object than the predetermined button.
 - ※ A foreign object blocks the keys or key switches.

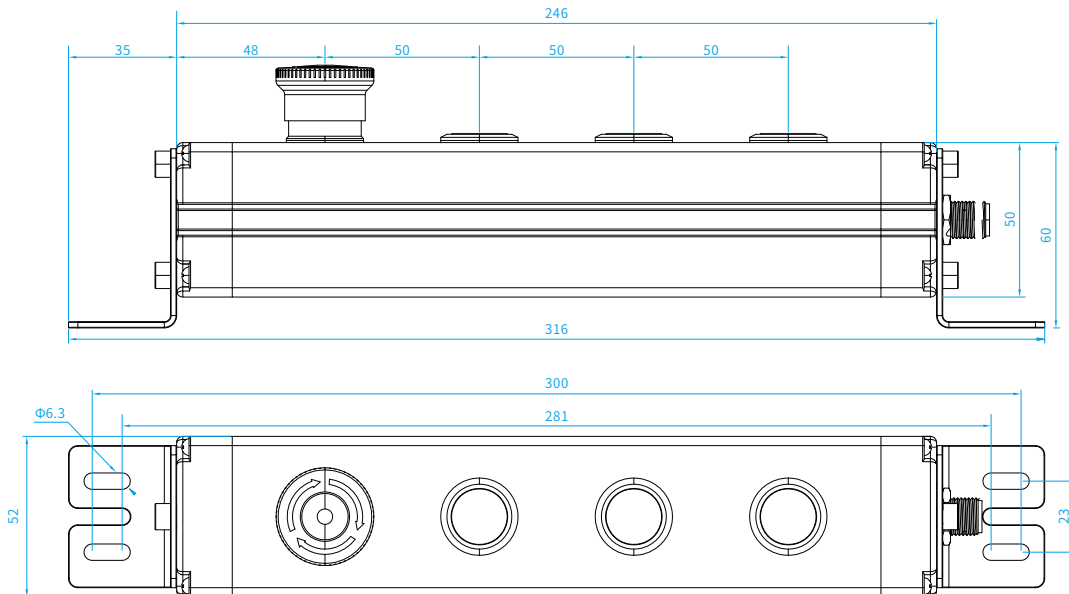
※ Before using this equipment, the entire system must be evaluated for safety in accordance with the Machinery Directive.

▶ SBX series button box selection table

TLSI Safety Latch Selection Table				
Shape	Content	Interface	Model	Order number
	Product body Mounting screws (4 pcs.) Operation key (1 pcs.)	12-pin M12	SBX-SR GK	LOT2465260SK
	Product body Mounting screws (4 pcs.)	12-pin M12	SBX-SR GY	LOT2465260SR
	Product body Mounting screws (4 pcs.)	12-pin M12	SBX-SW GY	LOT2465260SW
	Product body Mounting screws (4 pcs.)	12-pin M12	SBX-BR GY	LOT2465260B
	3m single head 12-core M12 cable		SBX-L3M12	LOTSBXL3
	Product body Mounting screws (4 pcs.) M16×1.5 waterproof connector	8-pin M12	SBX-SG RT	LOT246526S3
	1m 8-core M12 male and female conversion cable※	8-pin M12 to 8-hole M12	SBX-L1M12S	LOTSBXL1S1

※The 1 meter 8-core M12 busbar and public conversion cable is only suitable for use with the extension cord between SBX-SGRT products and SLC products (TRL1 series).

▶ SBX Series Button Box Size (mm)



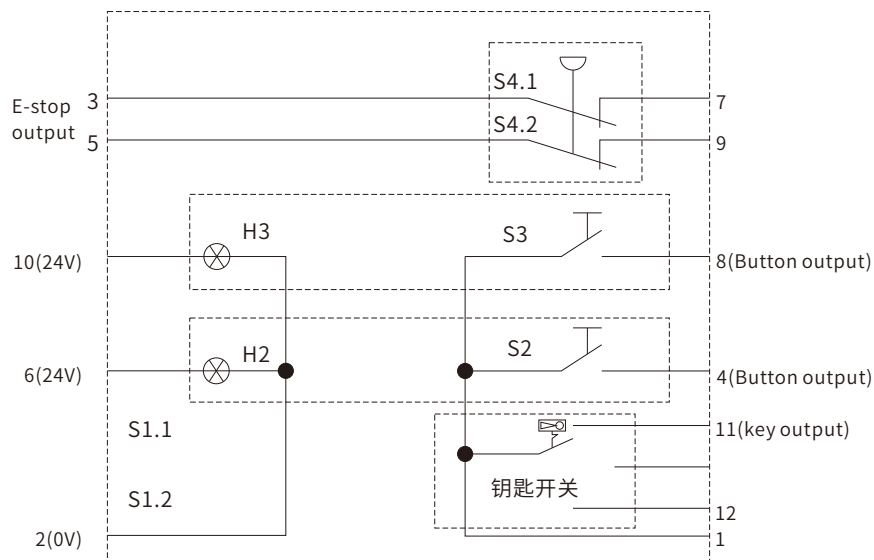
※Depending on the product configuration and manufacturing process, the actual product size and weight may vary, please refer to the actual product

SBX Function description



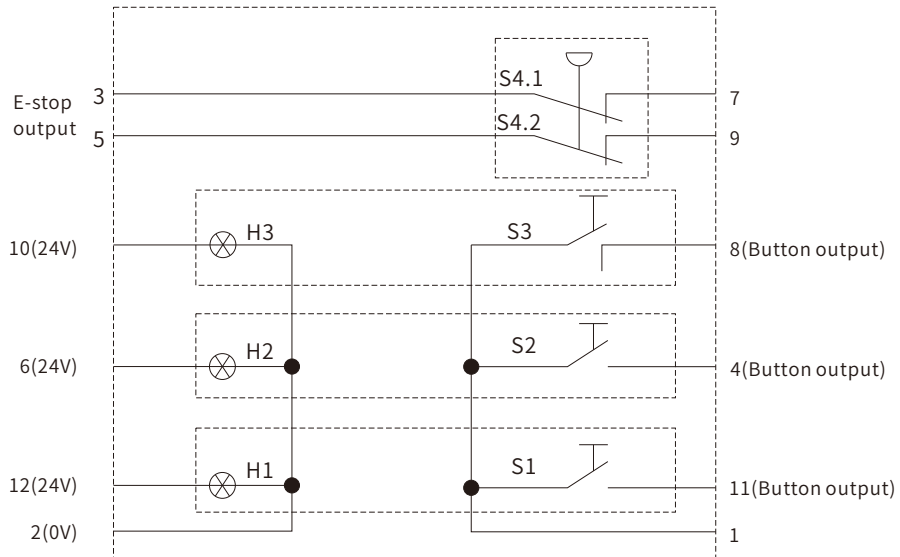
SBX-SRGK line sequence table

No.	Color	Function
1	Brown	Switch S1/S2/S3 positive common terminal
2	Dark Blue	The indicator common terminal is 0V
3	White	Emergency stop switch A+
4	Green	S2 switch output
5	Pink	Emergency stop switch B+
6	Yellow	H2 indicator
7	Black	Emergency stop switch A-
8	Grey	S3 switch output
9	Red	Emergency stop switch B-
10	Purple	H3 indicator
11	Orange	Key switch S1.1 output
12	Sky Blue	Key switch S1.2 output



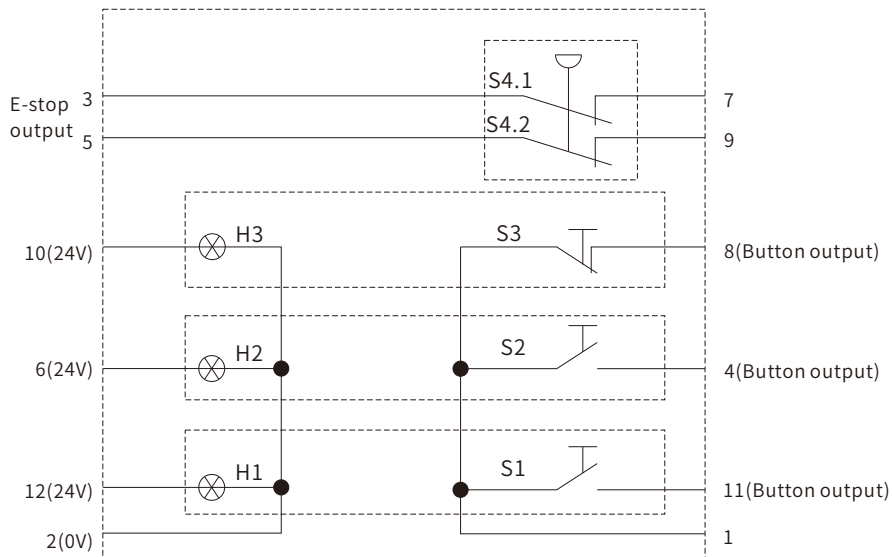


SBX-SRGY line sequence table		
No.	Color	Function
1	Brown	Switch S1/S2/S3 positive common terminal
2	Dark Blue	The indicator common terminal is 0V
3	White	Emergency stop switch A+
4	Green	S2 switch output
5	Pink	Emergency stop switch B+
6	Yellow	H2 indicator
7	Black	Emergency stop switch A-
8	Grey	S3 switch output
9	Red	Emergency stop switch B-
10	Purple	H3 indicator
11	Orange	S1 switch output
12	Sky Blue	H1 indicator





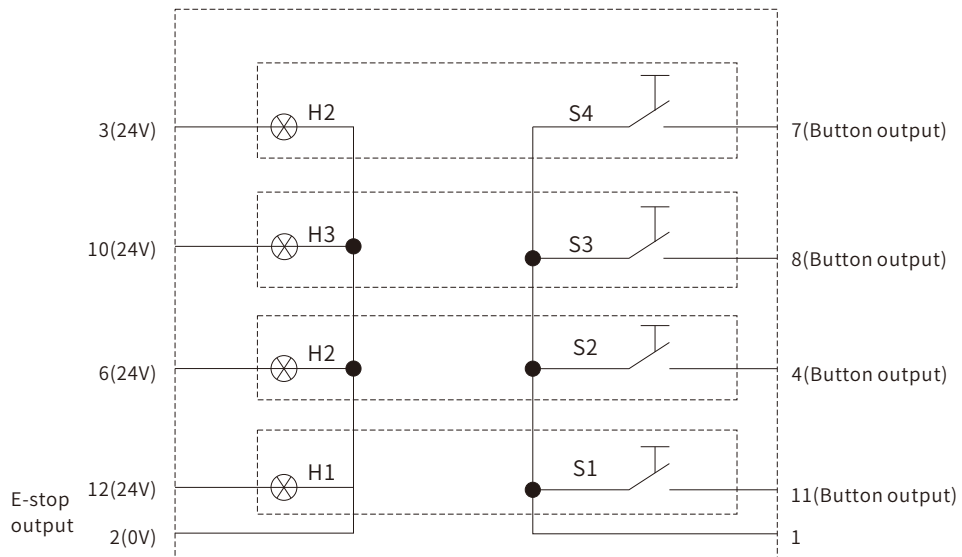
SBX-SWGY line sequence table		
No.	Color	Function
1	Brown	Switch S1/S2/S3 positive common terminal
2	Dark Blue	The indicator common terminal is 0V
3	White	Emergency stop switch A+
4	Green	S2 switch output
5	Pink	Emergency stop switch B+
6	Yellow	H2 indicator
7	Black	Emergency stop switch A-
8	Grey	S3 switch output
9	Red	Emergency stop switch B-
10	Purple	H3 indicator
11	Orange	S1 switch output
12	Sky Blue	H1 indicator



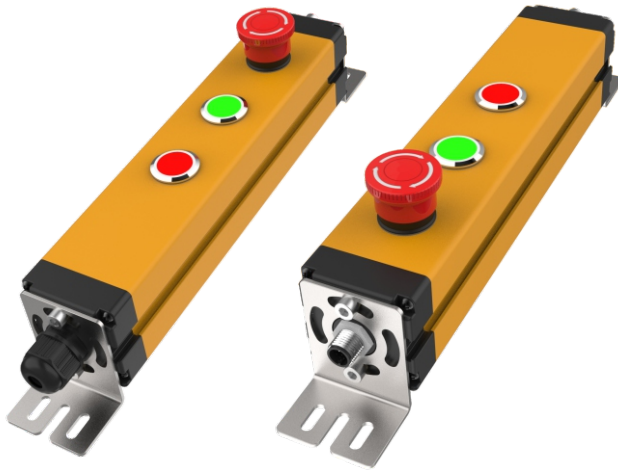


SBX-BRGY line sequence table

No.	Color	Function
1	Brown	Switch S1/S2/S3/S4 positive common terminal
2	Dark Blue	The indicator common terminal is 0V
3	White	H4 indicator
4	Green	S2 switch output
5	Pink	Not connected
6	Yellow	H2 indicator
7	Black	S4 switch output
8	Grey	S3 switch output
9	Red	Not connected
10	Purple	H3 indicator
11	Orange	S1 switch output
12	Sky Blue	H1 indicator

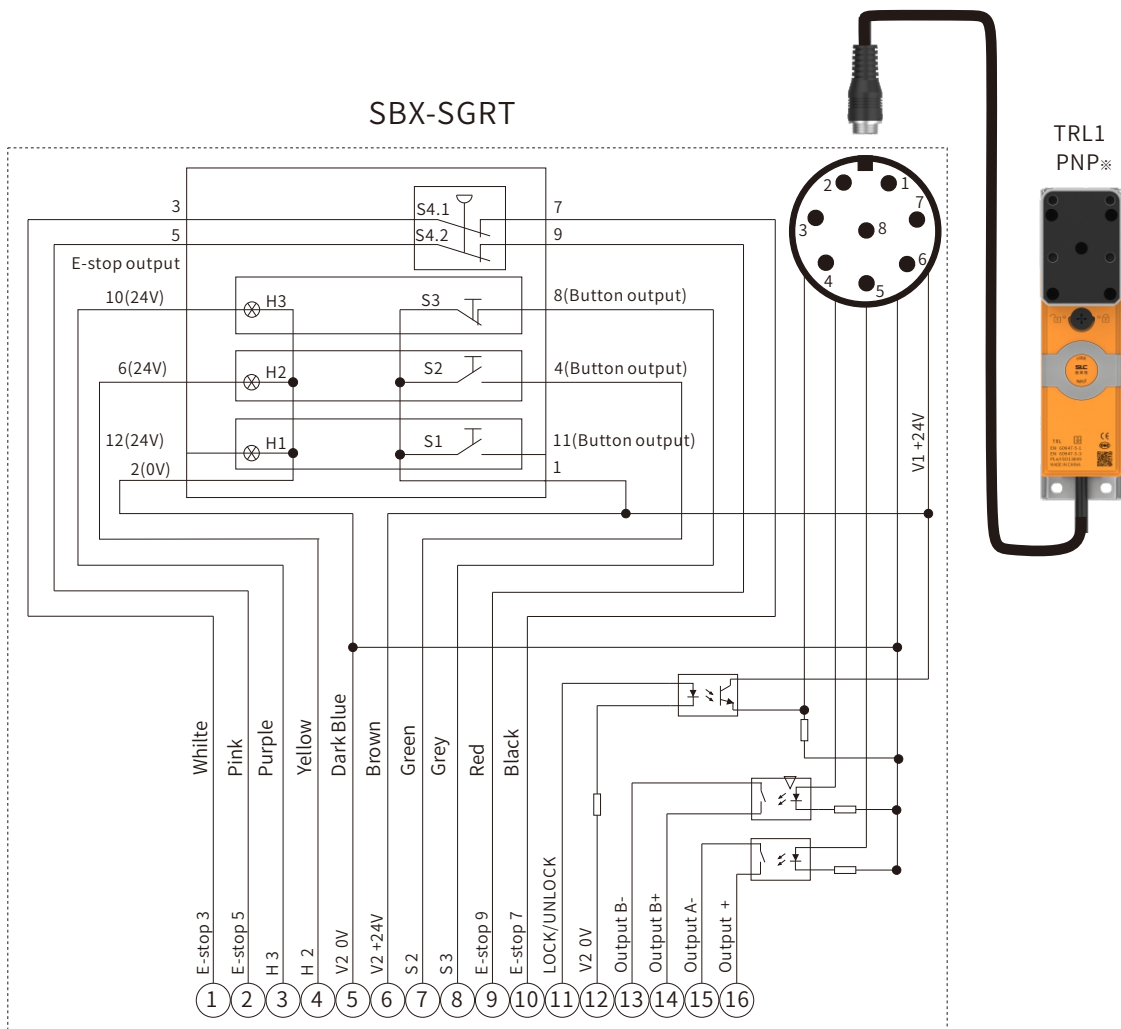


SBX-SGRT Wiring diagram



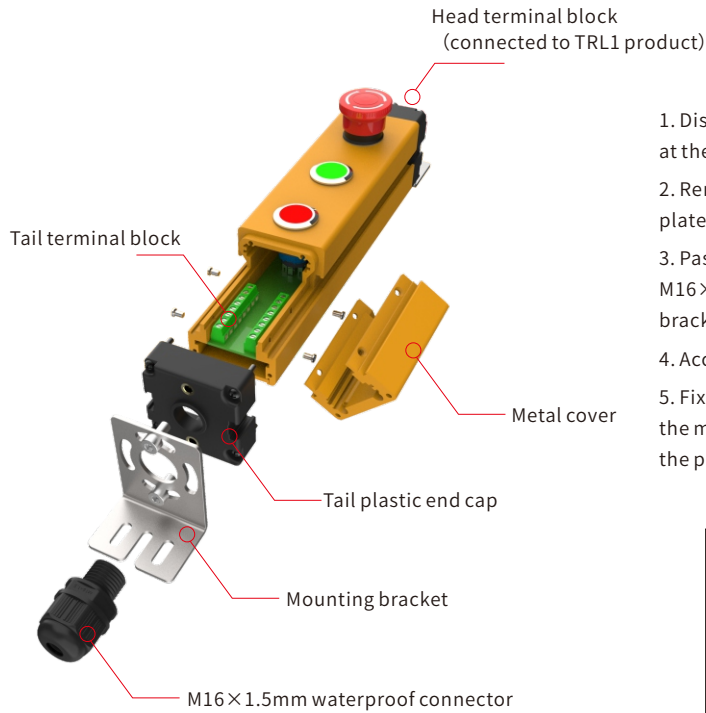
J1						
24V	0V	UN/LOCK	H2	H3	E-stop3	E-stop7
○	○	○	○	○	○	○
○	○	○	○	○	○	○
Output A	Output B	Auxiliary output	Open	Close	E-stop5	E-stop9
						Ground
J2						

DOOR CONTROL UNIT

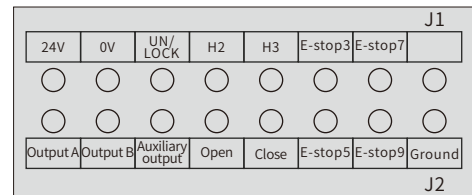


※For the TRL1 product line, please read the TRL1 Series Safety Locks section of this document.

Description of SBX-SGRT product wiring



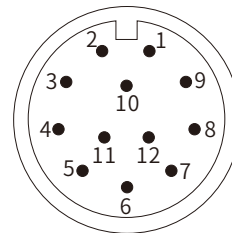
1. Disassemble the four fixing screws of the black end cover at the tail and remove the end cover;
2. Remove the four fixing screws of the yellow metal cover plate and remove the metal cover plate;
3. Pass the 8-core cable (self-provided) through the M16×1.5mm waterproof connector, hardware mounting bracket and plastic end cover in turn;
4. According to the wiring diagram, fix all cables in order
5. Fix the yellow metal cover, the black end cover at the tail, the metal mounting bracket and the waterproof joint back to the product body in turn.



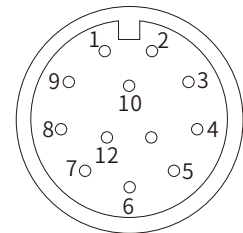
Tail terminal sequence diagram

SBX系列按钮盒端子连接器说明

Terminal connector description			
No.	Cable color	No.	Cable color
1	Brown	7	Black
2	Dark Blue	8	Grey
3	White	9	Red
4	Green	10	Purple
5	Pink	11	Orange
6	Yellow	12	Sky Blue



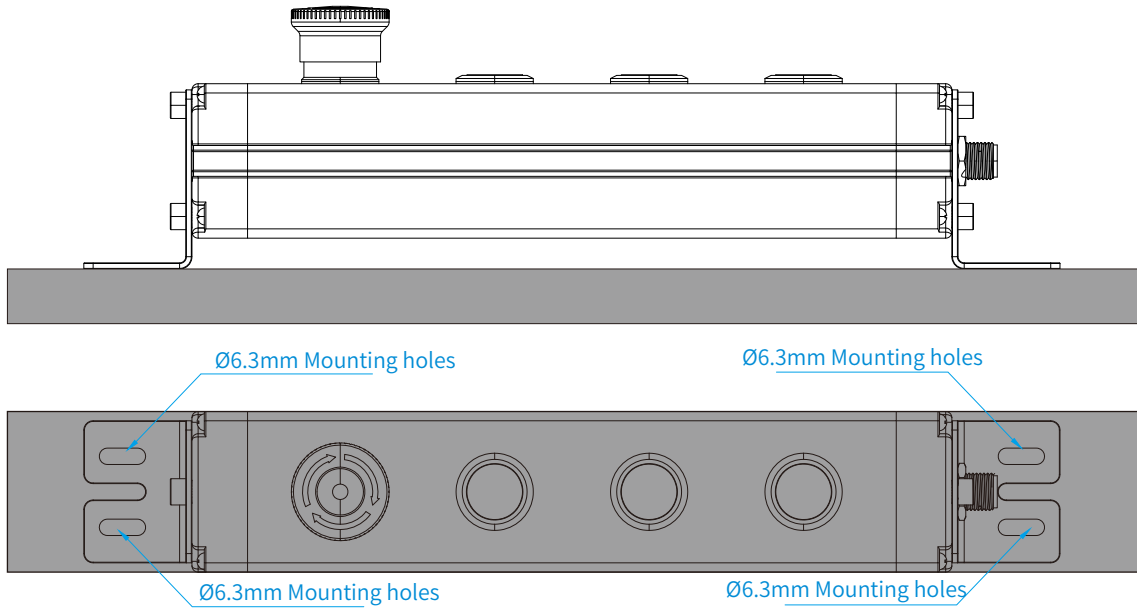
12-pin M12 male connector



Cable female

※For the TRL1 product line sequence, please read the "TRL1 Series Security Door Lock" section of this material.

SBX installation and use instructions



- 1.SBX control unit, can be applied to IEC/EN60947-5-5, ENISO13850 safety circuit,
- 2.It is recommended to use M6 screw installation,
- 3.SBX control unit supports 3 directions of rotation installation.