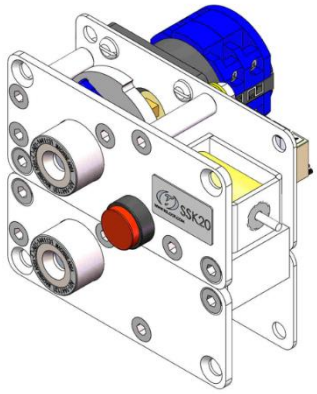
SSK Solenoid switch key interlock



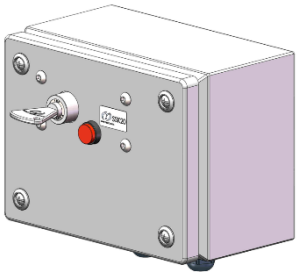
The SSK is a heavy-duty solenoid controlled key driven electrical switch interlock ideal for the controlled isolation or switching of low current. This product is used where a process can send a signal to release a key, e.g., a robot must finish a cycle prior to isolation. Upon removal of the key, the SSK switch contacts change to isolate the process. This type of isolator should be used for short term, off load isolation. The unit is ready for mounting into an existing panel or for surface mounting within its own IP65 rated enclosure. The SSK is manufactured from either brass or stainless steel.

OPERATION

The SSK Solenoid Switch Key lock is typically used for machine isolation in applications where a machine must finish a cycle prior to isolation.

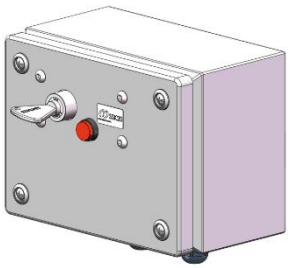
SSK Solenoid Switch Key interlock

1 **Key is trapped while power is on, solenoid is de-energized.**



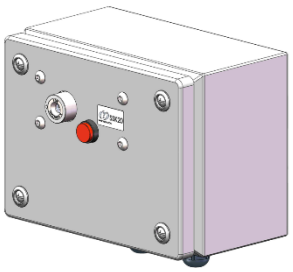
While the power is on and a machine is running, the key is trapped in the Solenoid switch key interlock.

2 **An external signal is received, and LED is illuminated. Push the button to energize the solenoid and remove the key.**



To release the key, an external signal must be received to energize the solenoid. With the solenoid energized the LED will illuminate to confirm that the key can be removed ensuring the power is off.

3 **Solenoid is energized, switch is locked out and key is free.**



The key can now be removed and taken to open the door lock and gain access to the machine area.

The SSK is available with different solenoid voltages as AC: 24, 110 or 240 V or DC: 24, 110, 240 V (see order information on page 6 for more details).

The SSK comes with 4 or 6 contacts as standard with contacts arrangements as 2NO/2NC, 4NC or 3NO/3NC or 6NC.

The SSK is available as a back of panel mount and as a surface mount version with an enclosure.

SSK Solenoid switch key interlock

USAGE

The SSK solenoid switch key interlock is designed to be part of a safety system and is used to isolate the power releasing.

⚠ The SSK solenoid switch key interlock is not designed for security purposes.

No hazardous substances were used in the manufacture of this product. The product can be disposed of in standard waste.

INSTALLATION

Back of panel units should be mounted to a flat surface using suitable fasteners (please refer to drawing on page 4 for more details). The lock face should be sealed to the panel for ingress protection.

Cables should be connected to the switch in accordance with the applicable wiring diagrams. Ensure that the unit is bonded for earth continuity (see drawing on page 4 for more installation details).

⚠ IMPORTANT: The SSK solenoid switch key interlock should be mounted on the guard using anti-tamper fasteners to prevent unauthorized removal.

⚠ The SSK solenoid switch key interlock must be installed by a competent and qualified person who has read and understood these instructions. Please retain this document in your technical file.

⚠ The manufacturer should be consulted when use in a corrosive environment is planned.

MAINTENANCE

Periodic visual checks should be carried out by the site manager/safety officer.

Do not lubricate lock barrel with oil or grease, use WD40 or CRC5-56 if necessary.

⚠ The interlock must be inspected every 6 months. Safety checks should include ensuring the keys can only be removed in the correct safety operating conditions (see page 1).

⚠ In case of defects being detected please contact your nearest ARMADILLO Support Department for further actions. Please see Contact section for contact details.

SSK Solenoid switch key interlock

TECHNICAL DATA

Temperature rating	-25°C to 55°C
Type of mounting	Surface mount using suitable fasteners (please refer to drawing on page 4 for more details)
Weight	1.6 kg
Material	Stainless locks portions with powder coated mild steel enclosure
B10d	2,500,000
Shock & vibration	EN 60068
Switch protection	IP65, for enclosure unit only
Switch parameter	690V, 20 amps, IEC 60947
PL rating	PLe

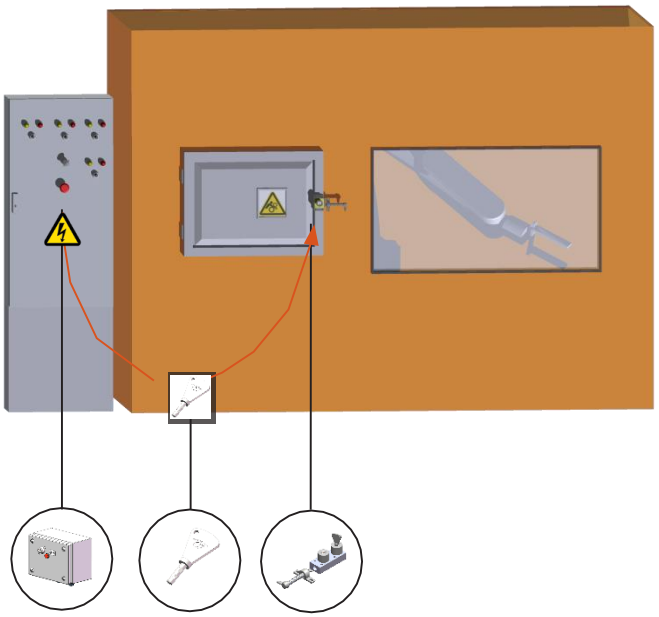
APPLICATION

An SSK Solenoid Switch Key interlock safety component is typically used as part of an integrated safety system.

A typical application of SSK solenoid switch key interlock is machine guarding. It is usually used in combination with an access interlock such as the SM door lock for part body access or an access interlock with an exchange key for full body access control such as SML access interlock.

The SSK breaks the machine safety circuit ensuring a machine is shut down. Once the machine has completed the cycle, an external signal is received by the solenoid, which is indicated by an illuminated LED. Activating the red button on the SSK will energize the solenoid and enable the key to be turned and removed ensuring the power cannot be switched back on. The key can then be taken to the SML access interlock to enable access to the machine.

The machine cannot be restarted until the door is closed, the bolt is trapped in the SML access interlock, and the key is removed and taken to the SSK.



SSK Solenoid switch key interlock

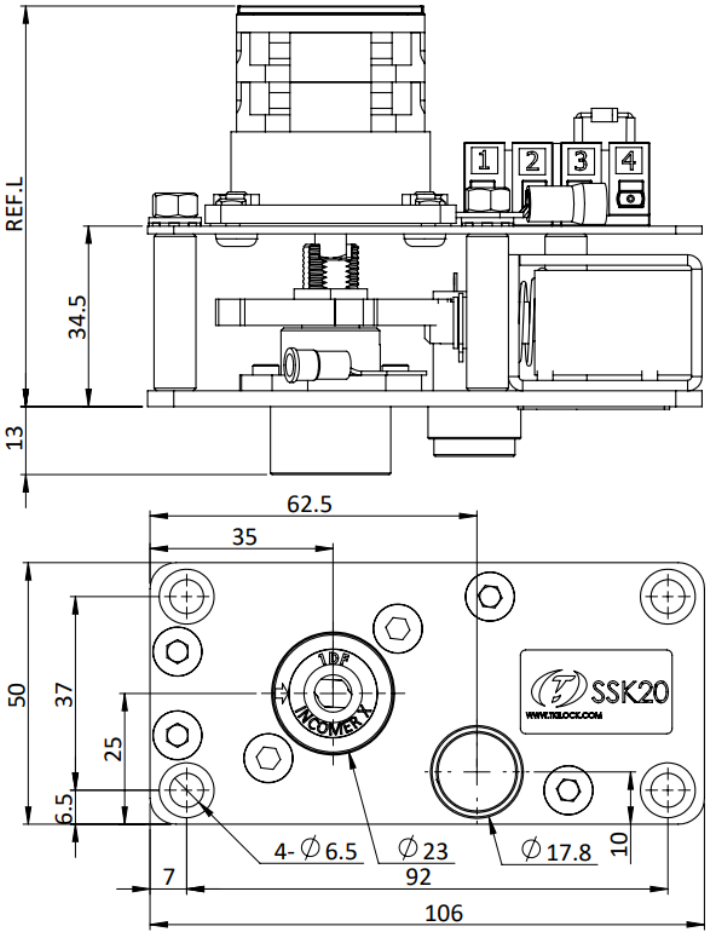
ARMADILLO

Dimensions: in mm

DRAWING

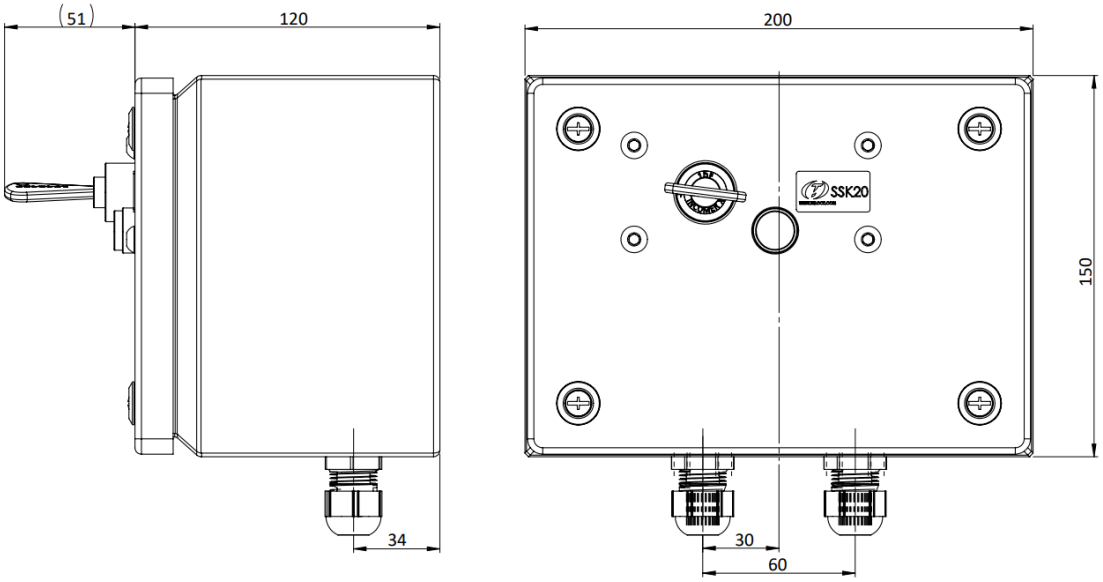
Note: For safe mounting, use security screws

SSK, Panel mount (Back of board)



DIMENSION REFERENCE "L"	
NO. of POLES	LENGTH
4 POLES	76.55 mm
6 POLES	86.05 mm
8 POLES	95.55 mm
10 POLES	105.05 mm
12 POLES	114.55 mm

SSK, Surface mounting (Front of board)



SSK Solenoid switch key interlock

ARMADILLO

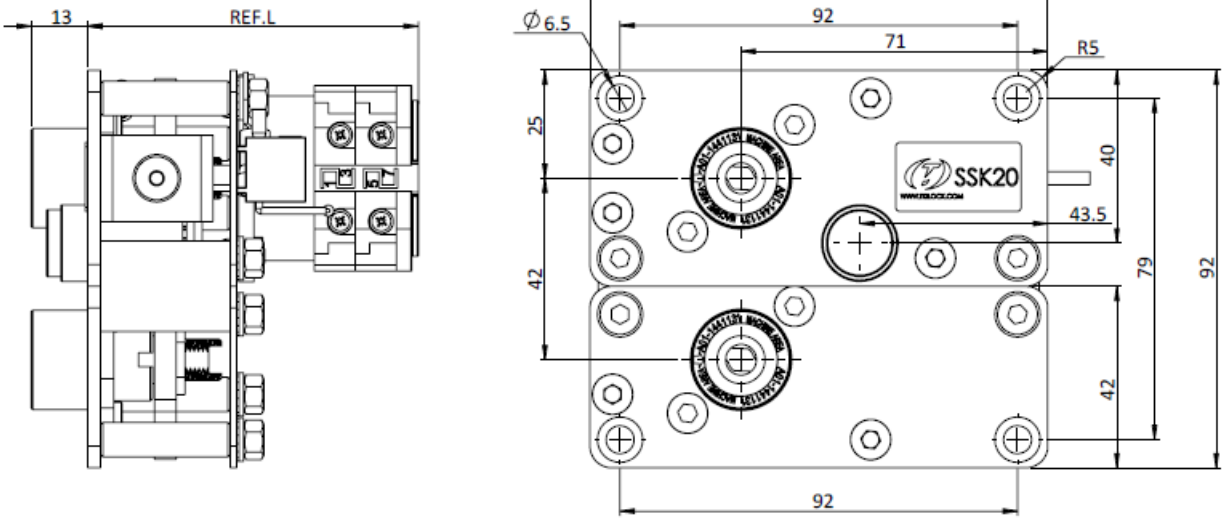
Dimensions: in mm

DRAWING

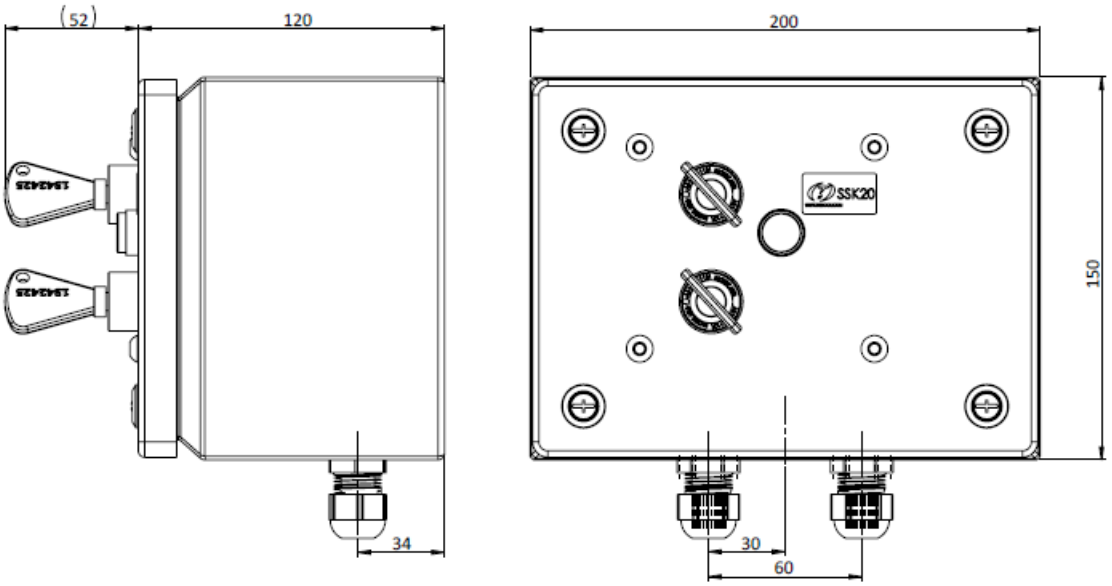
Note: For safe mounting, use security screws

DIMENSION REFERENCE "L"	
NO. of POLES	LENGTH
4 POLES	76.55 mm
6 POLES	86.05 mm
8 POLES	95.55 mm
10 POLES	105.05 mm
12 POLES	114.55 mm

SSK, double key panel mount (Back of board)



SSK, double key surface mount (Front of board)



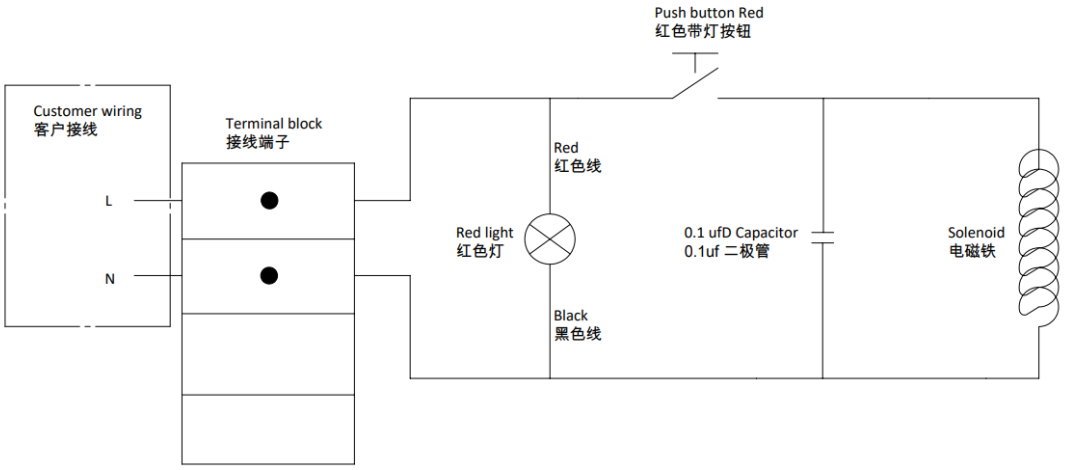
SSK Solenoid switch key interlock

Dimensions: in mm

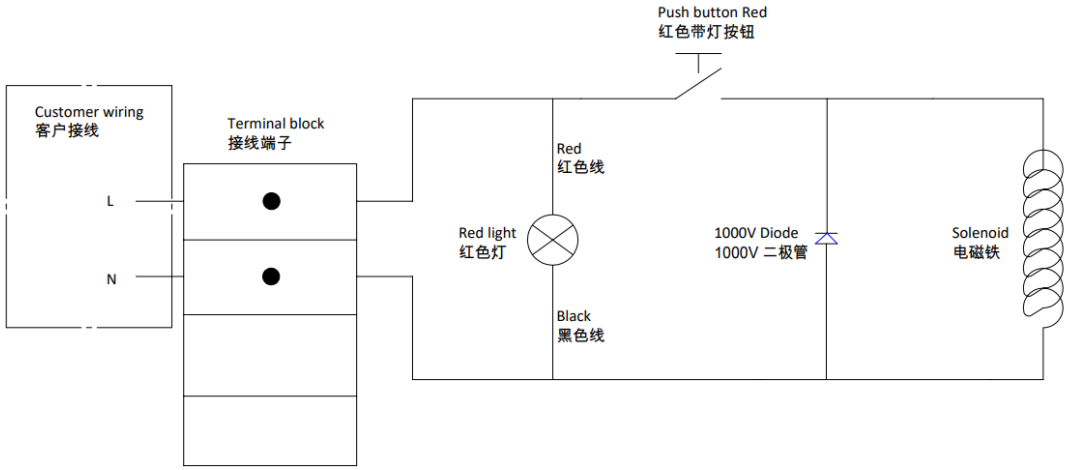
WIRING DIAGRAM

Note: For safe mounting, use security screws

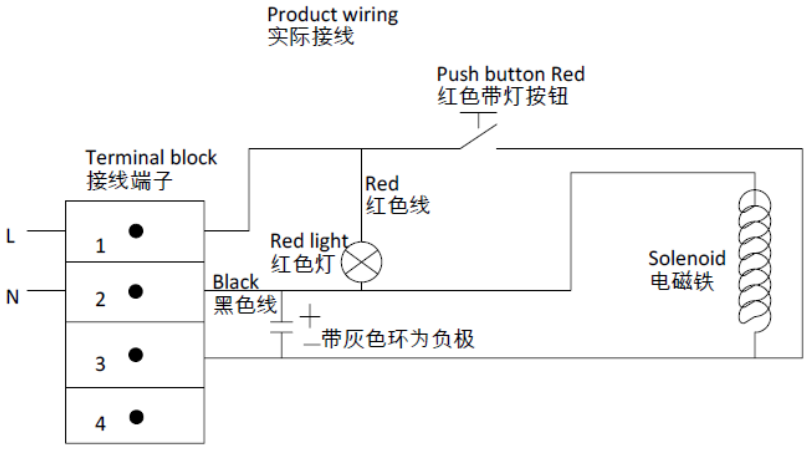
SSK, AC



SSK, DC



SSK, Product Wiring



SSK Solenoid switch key interlock

ORDER INFORMATION

	Component type		1		2		3		4		5		6		7
Part number	SSK	-		-		-		-		-		-		-	
Example	SSK	-	20	-	1	-	D	-	S	-	P	-	2O2C	-	24VDC

1	Switch rating	20 = 20A(standard) 32 = 32A(customized) 63 = 63A(customized)
2	Keys quantity	1 = 1 key 2 = 2 keys 3 = 3 keys
3	Keys condition	D = keys in double condition E = keys in exchange condition
4	Material	S = Stainless steel B = Brass
5	Mounting type	P = Panel mount without enclosure F = Surface mount with enclosure
6	Switch contact type and quantity	2O2C = 2 normal open & 2 normal close 4C = 4 normal close 6O = 6 normal open
7	Power supply voltage	24VDC Standard, 110/220VDC/AC option

Special construction available upon enquiry

ACCESSORIES

	Product	Part number
	Production cover	CAM12490(to be consulted to ARMADILLO)

CONTACT INFORMATION

WWW.ARMA-SAFETY.COM

Email: Sales@arma-safety.com

Phone: 0086(0)1531 680 2637

Address: No.2258 CaoAn Road JiaDing district Shanghai China