

Multi-Entry Trapped Key-Operated Safety Interlock Switch

SS6/SSD6 SERIES

DESCRIPTION

SUNS SS/SSD6191 trapped key safety interlock switch is designed for holding a door or gate closed while a hazard still exists. This is particularly important where there is momentum in the machine. In other words, even when the machine is signaled to stop, parts of the machine are still moving. This could pose an injury risk if the access gate or door is not held closed.

Features

- Robust zinc die cast head assembly with glass fiber reinforced plastic or zinc die cast body
- Three solenoids voltages: 24Vac/dc, 120Vac and 240Vac
- Power-to-lock or power-to-unlock types for key trap (2500N holding force)
- Flexible switching arrangement
- 24 V, 110 Vac, and 230 Vac coil voltages
- Override mechanism in cover
- Head may be rotated into 4 different positions
- Three conduit openings (knock-out style)
- Switch position provides status
- Choice of different contact blocks
- Indicators for switch and solenoid status (optional)
- Positive Opening of NC contacts
- Cable entry available: M20, and 1/2"NPT
- Approval: CE, cULus

BENEFITS

- Product may be applied to most applications worldwide
- Tough, cost-effective, double-insulated enclosure
- Choice of key trapping methodology
- Four contacts that can be arranged in any configuration
- Multiple voltages provide for every geography
- Has a method to open door (in case of power loss, etc.)
- One part number may be used for multiple applications
- Flexible wiring options
- Can diagnose status of gate/door (gate/door closed and locked, gate/door closed and unlocked, gate/door open)

POTENTIAL APPLICATIONS

- Woodworking machinery
- Printing/paper finishing equipment
- Plastic molding equipment
- Packaging machinery
- Bailing
- Pumping equipment
- Semiconductor manufacturing equipment
- Packaging wrapping
- Specialty equipment
- Machine tool
- Robot cell

SSD6191

SS6191

SS6191(EU)



Multi-Entry Trapped Key-Operated Safety Interlock Switch

SS6/SSD6 SERIES SPECIFICATIONS

Designation and Utilization Category		Rated Operational Current I _e (A) at Rated Operational Voltage U _e (V)					
		24Vdc	125Vdc	250Vdc	120Vac	240Vac	600Vac
AC15	A600	-	-	-	6A	3A	1.2A
DC13	Q300	4A	0.55A	0.27A	-	-	-
Rated thermal current (I _{th})		10A					
Sealing		SSD6191 IP65; NEMA 1, 4, 12, 13 SS6191 IP67; NEMA 1, 4, 6, 12, 13					
Rated impulse withstand (U _{imp})		2500 V					
Pollution degree		3 (macro-environment, installation environment)					
Rated insulation voltage (U _i)		600 V					
Operating temperature range		-25 °C to 50 °C [-13 °F to 122 °F]					
Storage temperature range		-40 °C to 85 °C [-40 °F to 185 °F]					
Short-circuit protective device (type/maximum rating)		Class J fuse (10 A/600 Vac)					
Expected mechanical life		1,000,000 operations					
Conditional short-circuit current		1000 A					
Solenoid operating voltage and power		24 Vac: +10 %, -15 %, 4 W		120 Vac: +10 %, -15 %, 8 W		240 Vac: +10 %, -15 %, 9 W 48 Vdc: +10 %, -20 %, 7 W	
Safety Category		PLe/4 equivalent					

Complies with:

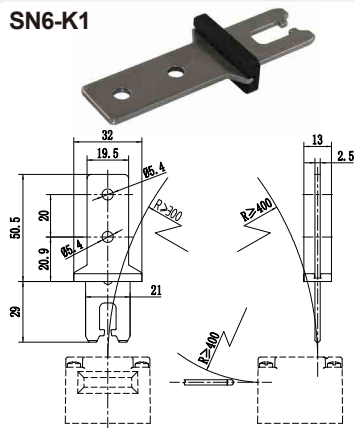
Low Voltage Directive 73/23/EEC, as amended by directive 93/68/EEC.

Machinery Directive 98/37/EEC only as the directives relate to the components being used in a safety function.

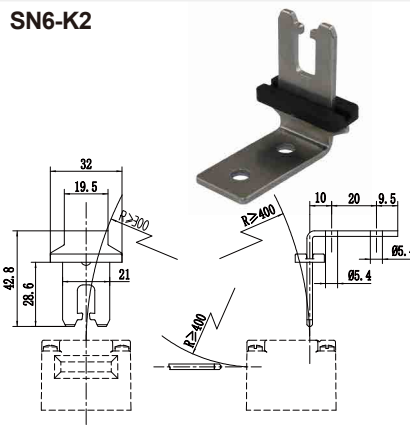
IEC/EN60947-5-1

Choice of Actuating Keys

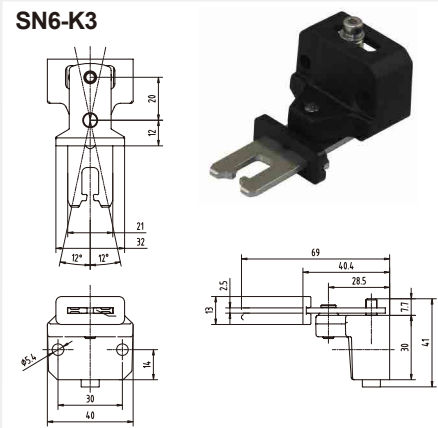
SN6-K1



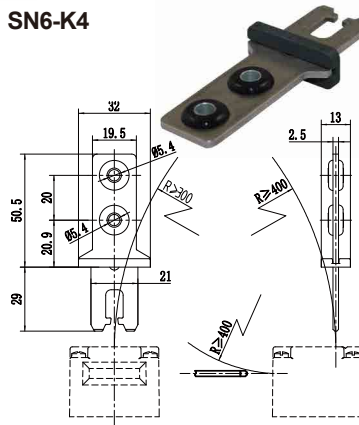
SN6-K2



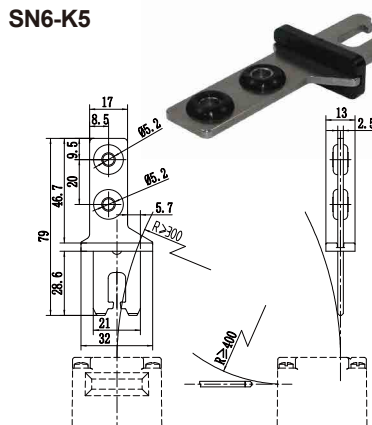
SN6-K3



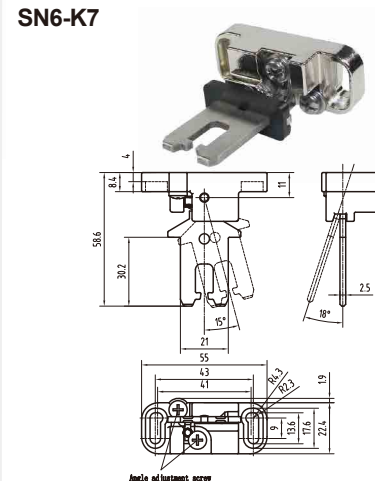
SN6-K4



SN6-K5



SN6-K7



. For use with SN6,SS6191 and SSD6191 (Material: stainless steel)

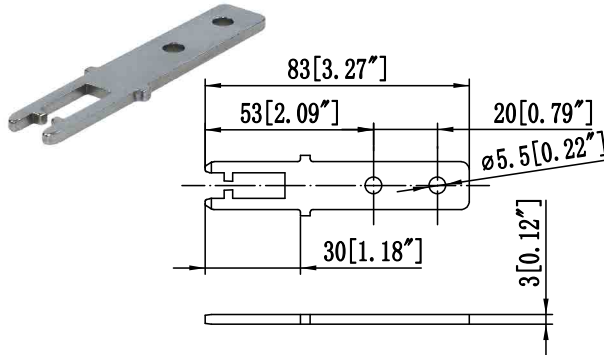
Angle adjustment screw

Multi-Entry Trapped Key-Operated Safety Interlock Switch

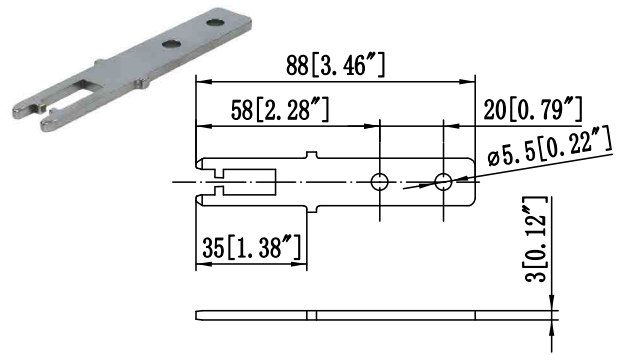
SS6/SSD6 SERIES

Choice of Actuating Keys

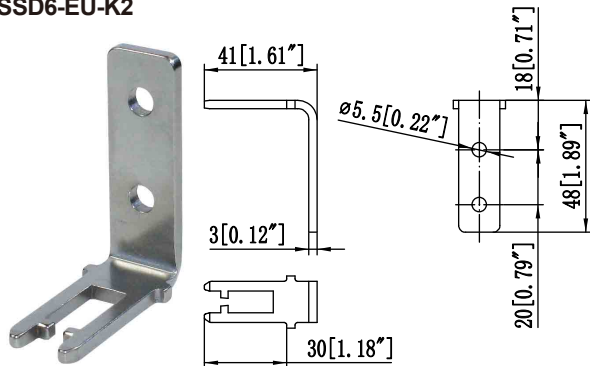
SSD6-EU-K1



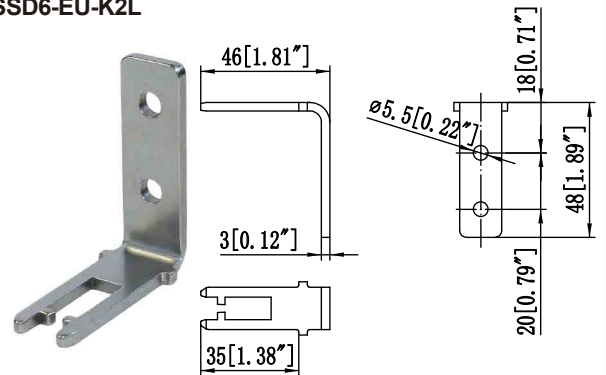
SSD6-EU-K1L



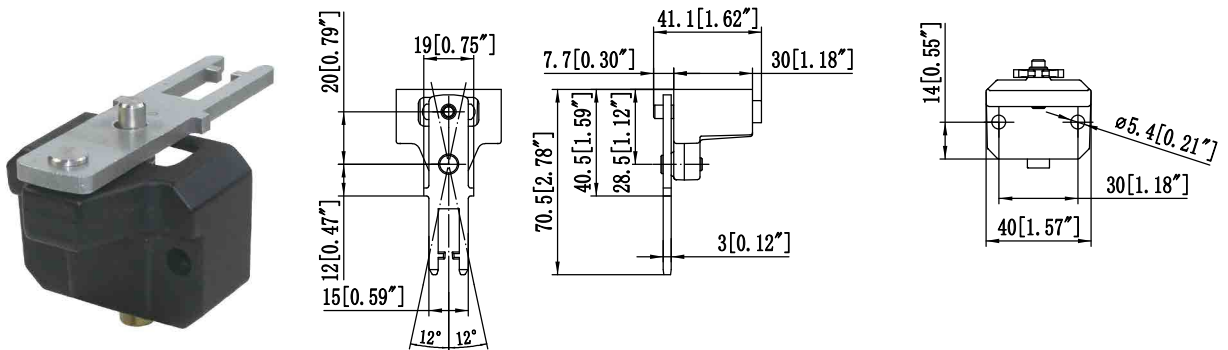
SSD6-EU-K2



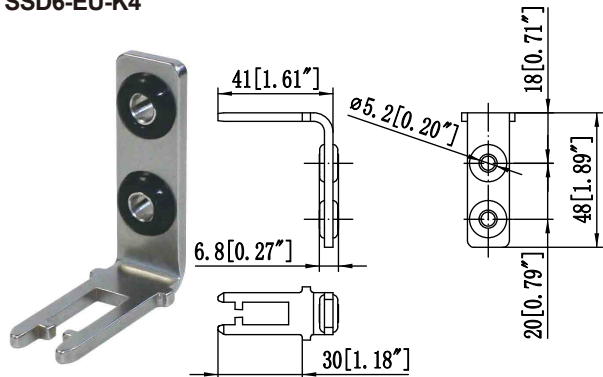
SSD6-EU-K2L



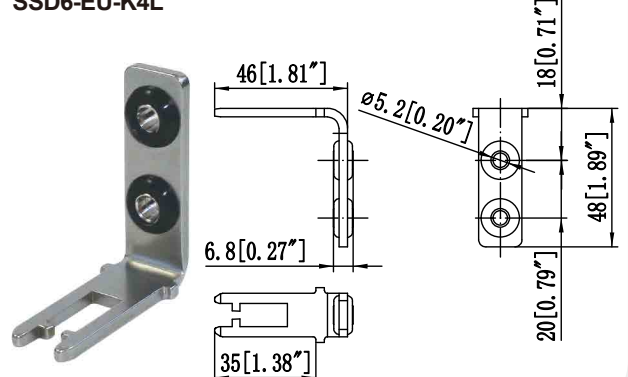
SSD6-EU-K3



SSD6-EU-K4



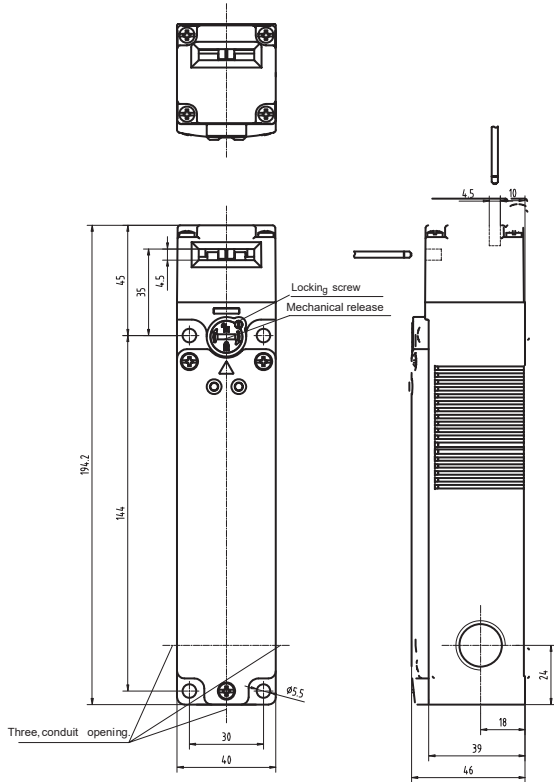
SSD6-EU-K4L



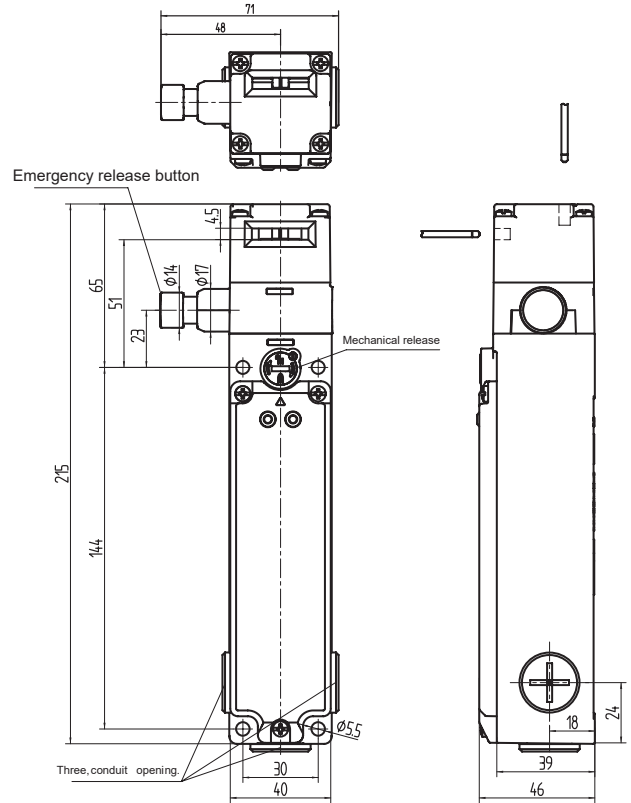
. For use with SSD6191-EU (Material: stainless steel)

Multi-Entry Trapped Key-Operated Safety Interlock Switch SS6/SSD6 SERIES

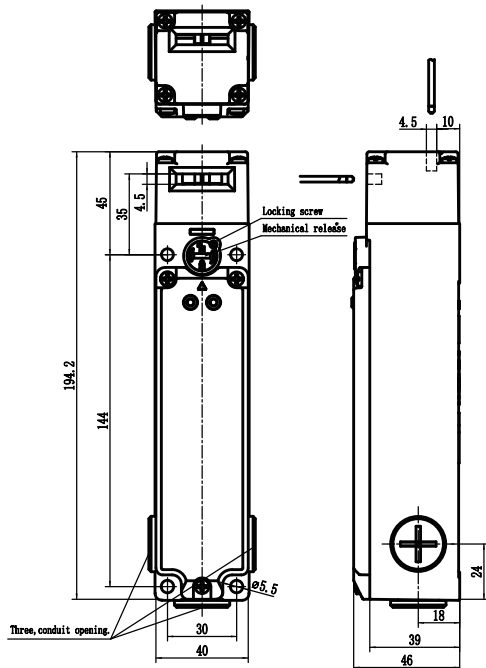
SSD6191



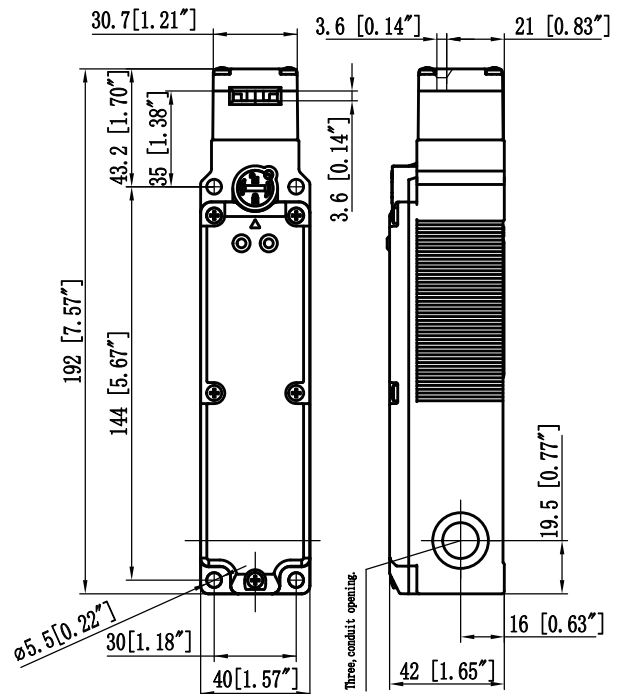
SSD6191-R



SS6191



SSD6191(EU)



Multi-Entry Trapped Key-Operated Safety Interlock Switch SS6/SSD6 SERIES

Selection Guide:

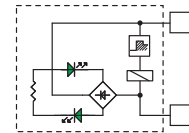
SS6191 - SL13 - U - 24 - L1 - A - R - Z2							
<table border="0"> <tr> <td style="vertical-align: top;"> <p>Body Style</p> <ul style="list-style-type: none"> SS6191: Metal body SSD6191: Plastic Body </td> <td style="vertical-align: top;"> <p>Contact Configuration (see below)</p> </td> <td style="vertical-align: top;"> <p>Locking Type</p> <ul style="list-style-type: none"> U: Power to unlock N: Power to lock </td> <td style="vertical-align: top;"> <p>Solenoid Voltage and Power</p> <ul style="list-style-type: none"> 24: 20-26VAC 20-28VDC 120: 100-120VAC 240: 200-240VAC </td> <td style="vertical-align: top;"> <p>LED Indicators</p> <ul style="list-style-type: none"> None: No LED L1: see below L2: see below </td> <td style="vertical-align: top;"> <p>Conduits</p> <ul style="list-style-type: none"> A: 1/2"NPT C: M20 </td> <td style="vertical-align: top;"> <p>Head Orientation</p> <ul style="list-style-type: none"> Blank: Front Z2: Left Z3: Back Z4: Right </td> </tr> </table>	<p>Body Style</p> <ul style="list-style-type: none"> SS6191: Metal body SSD6191: Plastic Body 	<p>Contact Configuration (see below)</p>	<p>Locking Type</p> <ul style="list-style-type: none"> U: Power to unlock N: Power to lock 	<p>Solenoid Voltage and Power</p> <ul style="list-style-type: none"> 24: 20-26VAC 20-28VDC 120: 100-120VAC 240: 200-240VAC 	<p>LED Indicators</p> <ul style="list-style-type: none"> None: No LED L1: see below L2: see below 	<p>Conduits</p> <ul style="list-style-type: none"> A: 1/2"NPT C: M20 	<p>Head Orientation</p> <ul style="list-style-type: none"> Blank: Front Z2: Left Z3: Back Z4: Right
<p>Body Style</p> <ul style="list-style-type: none"> SS6191: Metal body SSD6191: Plastic Body 	<p>Contact Configuration (see below)</p>	<p>Locking Type</p> <ul style="list-style-type: none"> U: Power to unlock N: Power to lock 	<p>Solenoid Voltage and Power</p> <ul style="list-style-type: none"> 24: 20-26VAC 20-28VDC 120: 100-120VAC 240: 200-240VAC 	<p>LED Indicators</p> <ul style="list-style-type: none"> None: No LED L1: see below L2: see below 	<p>Conduits</p> <ul style="list-style-type: none"> A: 1/2"NPT C: M20 	<p>Head Orientation</p> <ul style="list-style-type: none"> Blank: Front Z2: Left Z3: Back Z4: Right 	

CIRCUIT AND TRAVEL DIAGRAMS

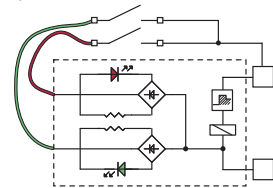
Contact block Code	Key inserted & Locked	Key inserted & Unlocked	Key Removed
SL13A 2NC/1NO (1NC)*			
SL13B 2NC (1NC/1NO)*			
SL13C 3NC (1NO)*			
SL22A 2NC/1NO (1NO)*			
SL22B 1NC/1NO (1NC/1NO)*			
SL04A 2NC (2NC)*			
SL04B 3NC (1NC)*			

* Door monitor contacts

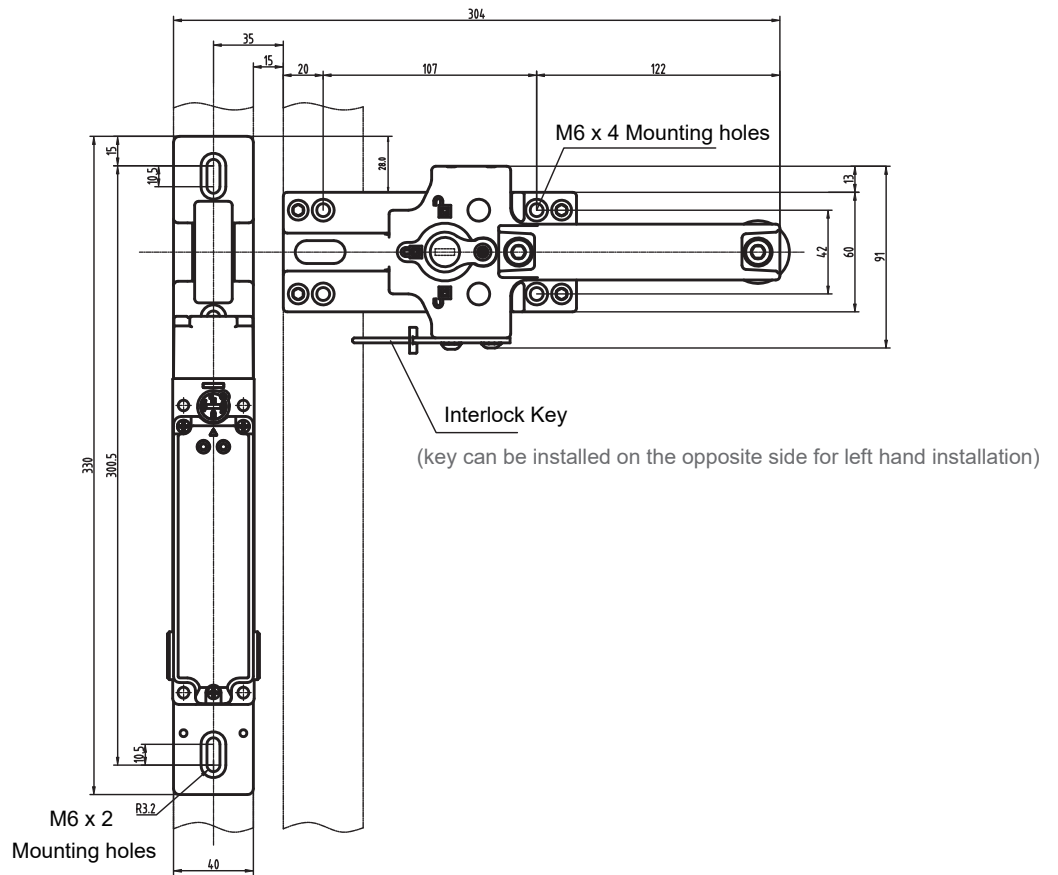
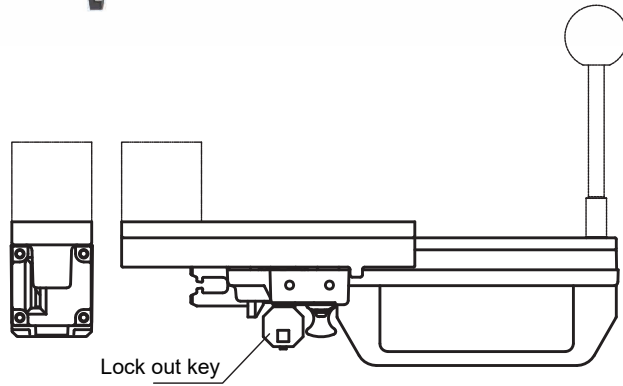
LED option L1:
Two green LEDs are switched ON directly by the solenoid power supply (24 V AC/DC versions only). Wiring is not necessary.



LED option L2:
Two LED connection wires are available, one green and one red. Through suitable connections to the contact block, it is possible to control the different states of the switch (24 V AC/DC versions only).



Key-Operated Safety Interlock Switch Mounting Hardware
SS6-SHK



Key-Operated Safety Interlock Switch Mounting Hardware SS6-HLK

