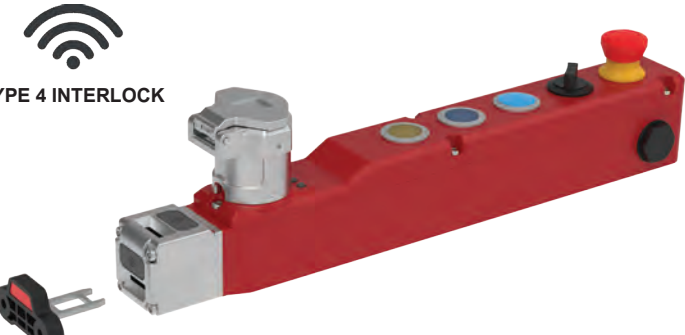


RFID Guard Locking Switch Metal: KLM-Z-SKR-5ST

FEATURES & APPLICATION:



Keys Sold Separately (See p263)
Pushbuttons Sold Separately (See p209)



TYPE 4 INTERLOCK



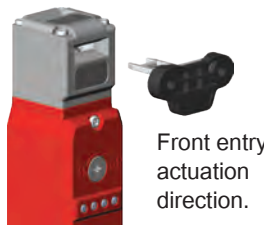
LT: All IDEM trapped key interlocks are available with a lockout dust cover.



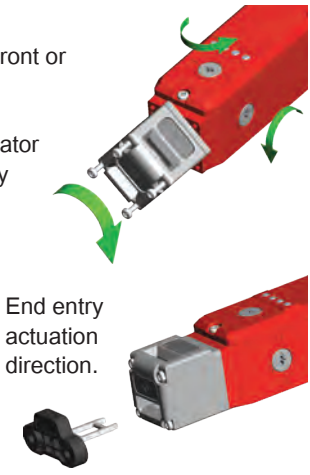
CK: All IDEM trapped key interlocks are available with a custom key label.

Unique design offering both Front or End entry actuation.

Head will rotate to give 8 actuator entry positions for full flexibility depending on application.



Front entry actuation direction.



End entry actuation direction.

OVERVIEW:

Introducing the Type 4 Guard Locking Switch with RFID interlocking, integrated machine control functions, and a trapped key.

The KLM-Z-5ST builds on the features of the KLM-Z by offering additional machine control functions, accommodating up to five 22mm pushbuttons, and a coded trapped key, all housed in a durable casing (refer to p** for available pushbutton options).

When entry is requested, the trapped key can be turned and removed, allowing the operator to take the key inside the safeguarded area, reducing the risk of accidental start-up.

The KLM-Z-5ST features a slim profile, designed specifically for 50mm (2in.) frame sections or applications where space is limited. Its head rotates to provide up to 8 actuator entry positions, offering flexibility and including front and entry sensing.

The KLM-Z-5ST housing can incorporate standard 22mm pushbuttons, lamps, or switches, enabling machine request or control functions all from one housing.

Constructed with a robust Stainless Steel 316 head and a Die-Cast metal body, the KLM-Z-5ST offers a choice of standard or flexible actuators.



AZ Standard Actuator

HFZ Flexible Actuator

FUNCTIONAL SPECIFICATIONS:

Solid State OSSD Safety Outputs short circuit protected.

High Functional Safety to ISO13849-1. Guard interlocking and lock monitoring to CAT 4, PL e and SIL 3. Safety ratings are maintained with up to 30 devices in series.

2 Safety Circuits - closed when switch is locked and machine able to run.

1 Auxiliary circuit for indication of Guard status (Guard open).

1 Auxiliary circuit for indication of Lock Status (Guard locked).

4 diagnostic LED's to display guard position, lock, input/output signals and fault status.

Technical Specification	
Standards	IEC60947-5-3, ISO14119, ISO13849-1, IEC62061, UL 60947-5-1
Supply Voltage	24Vdc (+/- 10%)
Power Consumption	R+ (50mA Max.) S+ (500mA Max) (Solenoid)
Safety Circuits	24V 0.2A
Auxiliary Circuits	24Vdc 0.2A Max. output current
Rated Insulation Voltage	500VAC
Holding Force (ISO14119)	F1 Max 3000N Fzh 2307N
Operating Frequency	1Hz
Head Material	Stainless Steel 316
Body Material	Die-Cast Metal
Enclosure Protection	IP67
Operating Temperature	-25C to +40C
Mechanical Life Expectancy	2.5 x 10 ⁶ cycles
Vibration	IEC88-2-6, 10-55Hz + 1Hz Excursion 0.35mm 1 octave/min

Characteristic data according to IEC62061 (used as a subsystem)

Safety Integrity Level	SIL 3
PFH (1/h)	4.80 E-10 Corresponds to 4.8% of SIL3
Proof Test Interval T _i	20a

Characteristic data according to EN ISO13849-1

Performance Level	e	If both channels are used in conjunction with a SIL 3/PL e control device.
Category	Cat 4	
MTTF _d	1100a	
Diagnostic Coverage DC	99% (high)	

RFID Guard Locking Switch Metal: KLM-Z-SKR-5ST

INDICATION DIAGRAM:



LED 1 Guard State	
Guard Locked	Green
Guard Unlocked	Green (Flashing)
Incorrect Code	Red (Flashing)
Guard Open	Red

LED 2 Input	
Safety Inputs On	Green
Safety Inputs Off	Off

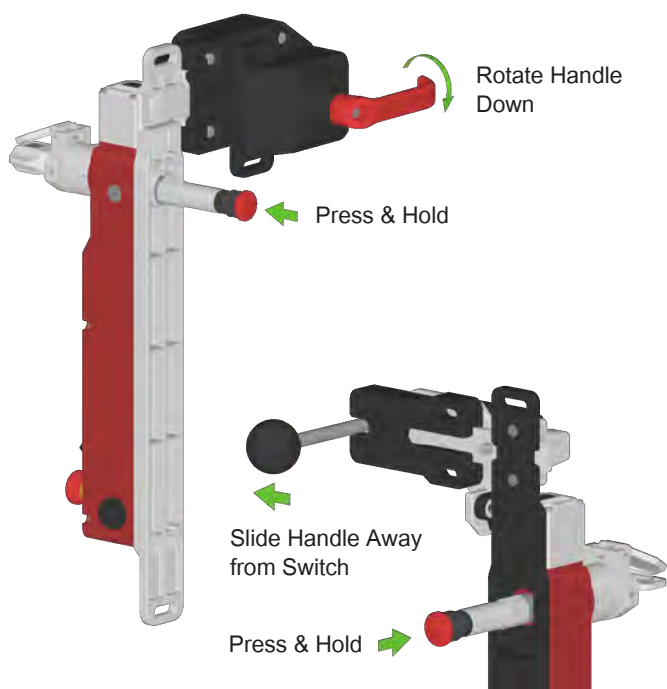
LED 3 Output	
Safety Outputs On	Green
Safety Outputs Off	Off

LED 4 Solenoid	
Solenoid Energised	Red
Solenoid De-energised	Off

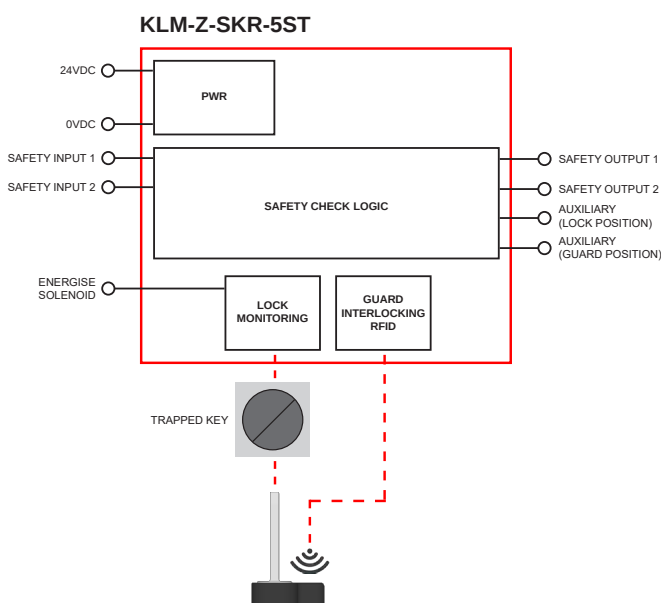
CONNECTIVITY:

Terminal	Function	Switch Circuit	Rating
R+	24V dc	Supply 24V dc	50mA max.
0V	0V dc	Supply 24V dc (Ground)	
11	Safety Input 1	Safety Circuit 1	200mA max.
12	Safety Output 1		
21	Safety Input 2	Safety Circuit 2	200mA max.
22	Safety Output 2		
44	Auxiliary (Guard Open)	Guard open signal +24V dc out	200mA max.
34	Auxiliary (Guard Locked)	Guard locked signal +24V dc out	200mA max.
S+	Unlocked	Unlock signal apply +24V dc	500mA max.

REAR ESCAPE:

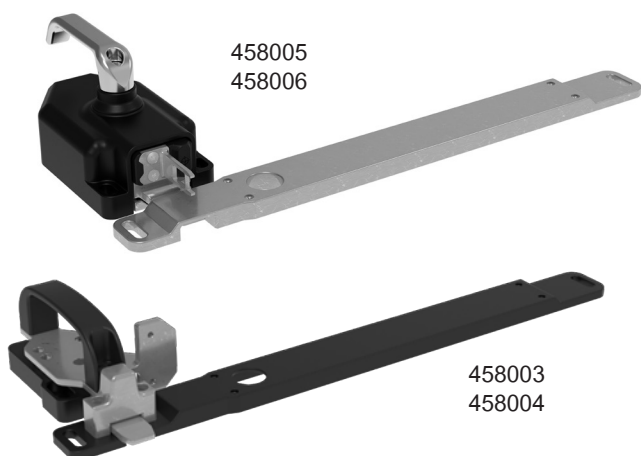


CONNECTION DIAGRAM:



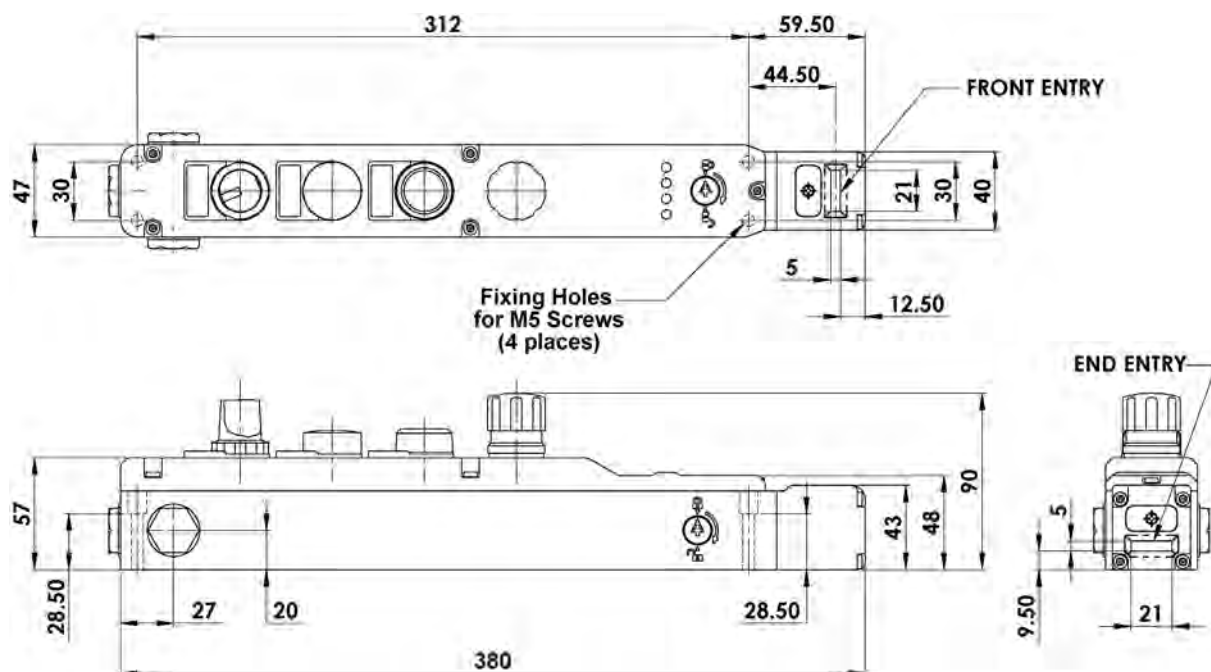
ORDERING:

KLM-Z-SKR-5ST (Configuration Descriptor)	With Side Manual Release			Without Side Manual Release		
	M20	1/2" NPT	M12-QC	M20	1/2" NPT	QC-M12
Standard (KLM-Z-SKR-5ST)	457004	457005	457006	457304	457305	457306
Rear Release (KLM-Z-SKR-5ST-RR)	457014	457015	457016	457314	457315	457316

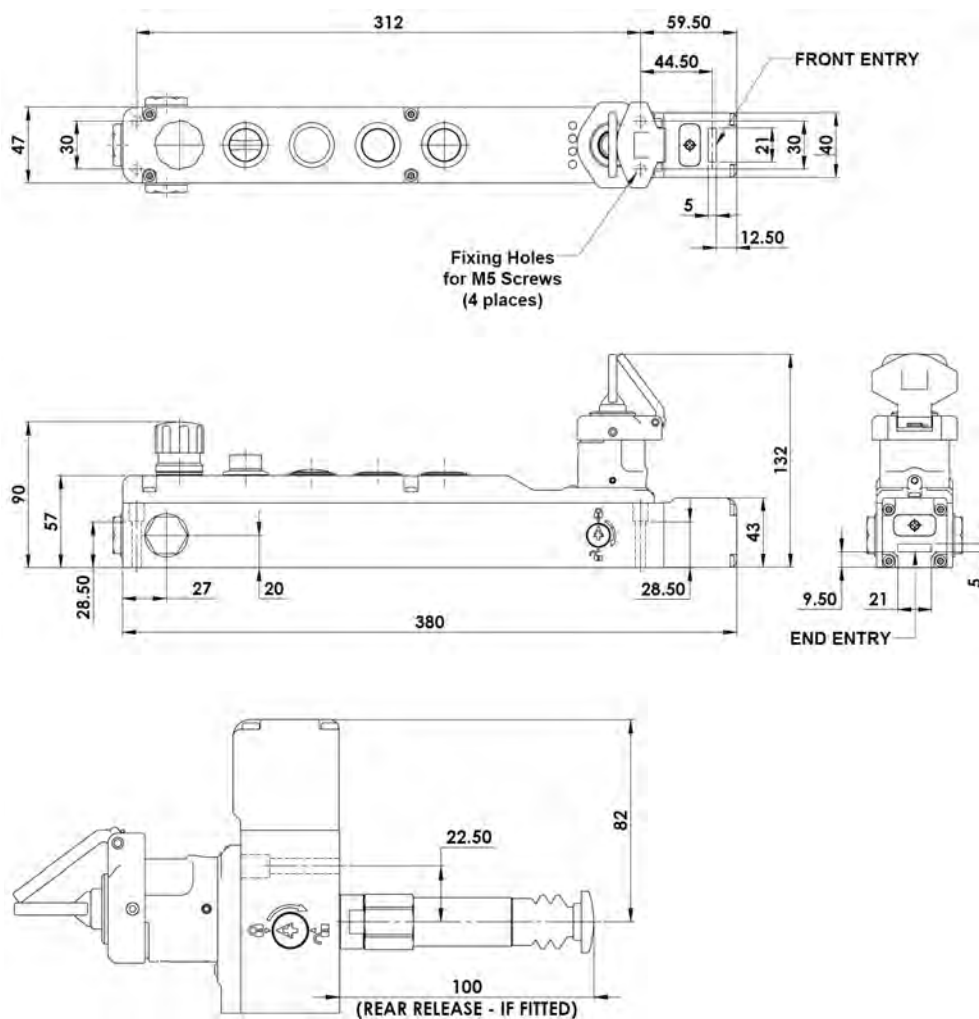


Dimensions for KLM-Z-SKR-ST Models

TYPE: KLM-Z-4ST



TYPE: KLM-Z-5ST



Pilot Devices for UGB-KLT and KLM-Z-ST Models

22mm ACCESSORIES FOR UGB-KLT, KLM-Z-4ST & 5ST (to be ordered separately):



SALES NUMBER	CONTACTS or VOLTAGE	DESCRIPTION	ELECTRICAL
522201	2NC	Compact Stop, Twist to Reset, Red 30mm Mushroom Head	AC-15 120Vac 1.5A 240Vac 1.0A DC-13 24Vdc 0.3A 125Vdc 0.2A
522202	1NC 1NO	Compact Stop, Twist to Reset, Red 30mm Mushroom Head	
522203	2NC	Compact Stop, Twist to Reset, Red 30mm Mushroom Head with Reset Key	
522204	1NC 1NO	Compact Stop, Twist to Reset, Red 30mm Mushroom Head with Reset Key	
522205	2NC	Compact Stop, Twist to Reset, Red 40mm Mushroom Head	
522206	1NC 1NO	Compact Stop, Twist to Reset, Red 40mm Mushroom Head	
522207	2NC	Compact Stop, Twist to Reset, Red 40mm Mushroom Head with Reset key	
522208	1NC 1NO	Compact Stop, Twist to Reset, Red 40mm Mushroom Head with Reset key	
522209	2NC	Compact Illuminated Stop, Twist to Reset, Red 32mm Mushroom Head with plug-in Spade Terminals (2.8 x 0.5mm), RED LAMP (5-30Vdc).	AC-15 120Vac 3A 24Vac 1.5A DC-13 24Vdc 3A 250Vdc 0.27A
522210	1NC 1NO	Compact Illuminated Stop, Twist to Reset, Red 32mm Mushroom Head with plug-in Spade Terminals (2.8 x 0.5mm), RED LAMP (5-30Vdc).	
522251	1NC 1NO	Compact 2 Positions Plastic Selector Switch	AC-15 120Vac 1.5A 240Vac 1.0A DC-13 24Vdc 0.3A 125Vdc 0.2A
522252	2NC	Compact 2 Positions Plastic Selector Switch	
522301	1NC 1NO	Compact Push Button Momentary - RED	
522302	1NC 1NO	Compact Push Button Momentary - GREEN	
522303	1NC 1NO	Compact Push Button Momentary - YELLOW	
522304	1NC 1NO	Compact Push Button Momentary - BLUE	
522305	1NC 1NO	Compact Push Button Momentary - WHITE	
522310	2NC	Compact Push Button Momentary - RED	
522311	2NC	Compact Push Button Momentary - GREEN	
522312	2NC	Compact Push Button Momentary - YELLOW	
522313	2NC	Compact Push Button Momentary - BLUE	
522314	2NC	Compact Push Button Momentary - WHITE	
522321	1NO	Compact Illuminated Push Button Momentary - RED (Lamp 24V ac/dc)	
522322	1NO	Compact Illuminated Push Button Momentary - GREEN (Lamp 24V ac/dc)	
522323	1NO	Compact Illuminated Push Button Momentary - YELLOW (Lamp 24V ac/dc)	
522324	1NO	Compact Illuminated Push Button Momentary - BLUE (Lamp 24V ac/dc)	
522325	1NO	Compact Illuminated Push Button Momentary - CLEAR (Lamp 24V ac/dc)	
522401	24V ac/dc	Pilot Light LED - YELLOW	24V ac/dc
522402	24V ac/dc	Pilot Light LED - RED	
522403	24V ac/dc	Pilot Light LED - GREEN	
522404	24V ac/dc	Pilot Light LED - BLUE	
522405	24V ac/dc	Pilot Light LED - CLEAR	
522451		Legend Holder for use with 22 mm Devices	
522452		Blanking Plug for sealing unused 22mm holes	