

Guard Locking Switch Metal Type: RAMZLOCK KLTM

FEATURES:

Spring to lock when actuator is inserted.
Energise solenoid to unlock.



CONTACTS:

KLTM

4NC Safety Contacts

1NO Auxiliary Contact (Guard Open)

1NO Auxiliary Contact (Guard Locked)

(selectable option for LED2 Guard Locked)

LED1 RED Solenoid Power On

LED2 GREEN Switch Locked (if selected)

FUNCTIONAL SPECIFICATIONS:

Positive Break Contacts to EN60947-5-1

Rugged Die Cast Metal Housing with Stainless Steel 316 Head

Will fit on 73mm fixing centres

Connects to most Safety Relays to give up to PLe Cat.4

M23 Quick Connector version available for ease of installation

2 manual override points

LED diagnostics for Solenoid, Lock and faults

ACTUATOR OPTIONS (see p76)



A - Standard



HF - Heavy Duty Flexible



F - Flat



HFH - Heavy Duty Flexible
Stainless Steel

For all IDEM switches the normally closed (NC) circuits are closed when the guard is closed actuator inserted.



Solenoid Locking Door Interlock Safety Switch Guard Holding up to 2000N (200Kg) (F1Max)

The KLTM Series Guard Locking switch is a tongue type safety interlock switches incorporating traditional mechanical anti-tamper tongue technology utilising IDEM Safety Switches patented cam system.

They interlock and hold closed guard doors to protect operators from moving or hazardous machinery.

They are particularly suited to where a high degree of anti-tamper technology is required to prevent accidental or deliberate attempts to by-pass the interlock.

The KLTM solenoid locking switch has a rugged metal body design and has been developed with a maximum holding force of 2000N which enables it to keep medium to large guard doors closed until hazards have been removed.

IP67 enclosure protection is maintained by a special double seal lid gasket design and metal fixings.

The KLTM has a low profile and the fixing holes are on an industry standard 73mm centre to enable easy retrofitting to new or existing guards (or where extra anti-tamper is required).

The head has the ability to rotate and provides the end user with up to 4 actuator entry positions.



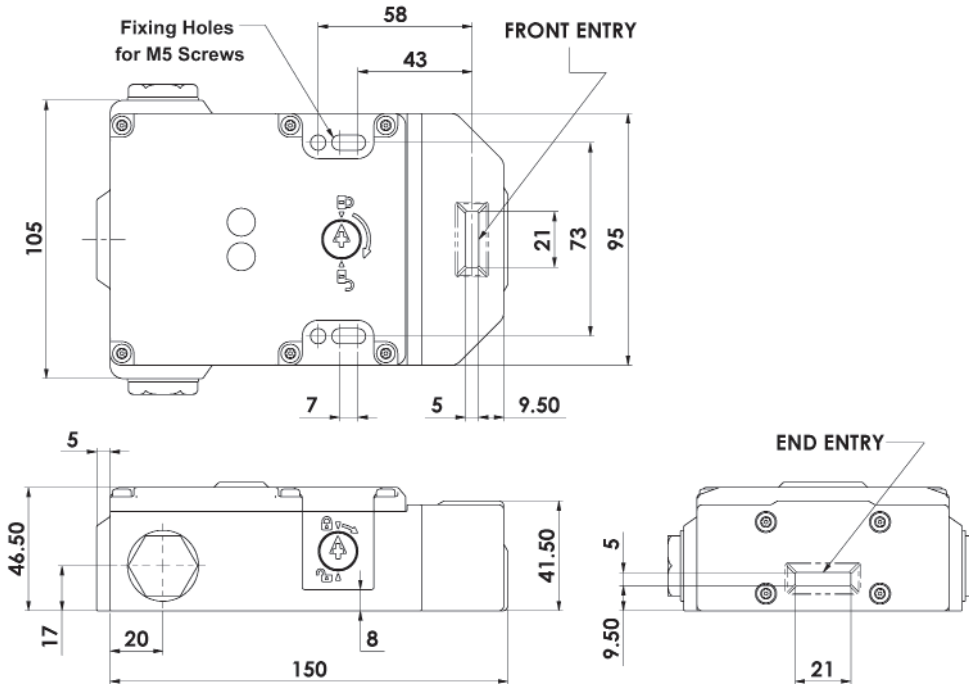
Standards: ISO14119 EN60947-5-1 EN60204-1
ISO13849-1 EN62061 UL508

Safety Classification and Reliability Data:

Mechanical Reliability B10d	2.5 x 10 ⁶ operations at 100mA load
ISO13849-1	Up to PLe depending upon system architecture
EN62061	Up to SIL3 depending upon system architecture
Safety Data – Annual Usage	8 cycles per hour/24 hours per day/365 days
PFHd	3.44 x 10 ⁻⁸
Proof Test Interval (Life)	35 years
MTTFd	356 years
Solenoid Voltage (by Sales Number)	24V ac/dc or 110Vac or 230Vac
Solenoid Wattage	12W
Utilization Category	AC15 A300 3A
Thermal Current (Ith)	5A
Rated Insulation/Withstand Voltages	600Vac/2500Vac
Travel for Positive Opening	10mm
Maximum Approach/Withdrawal Speed	600mm/s
Holding Force	F1Max 2000N Fzh 1538N
Body Material	Die Cast Metal (painted red)
Head Material	Stainless Steel 316
Enclosure Protection	IP67
Operating Temperature	-25C +40C
Vibration	IEC 68-2-6 10-55Hz + 1Hz Excursion 0.35mm 1 octave/min
Conduit Entry	Various (See Sales Number)
Fixing	2 x M5

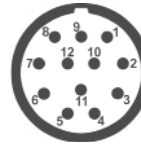
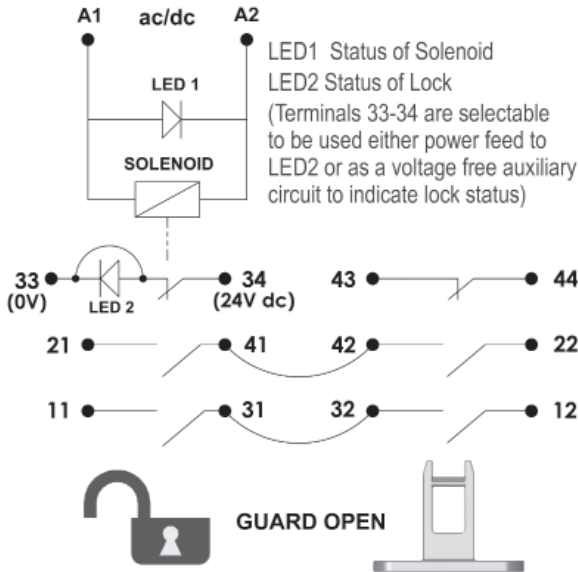
Guard Locking Switch Metal Type: RAMZLOCK KLTM

DIMENSIONS:



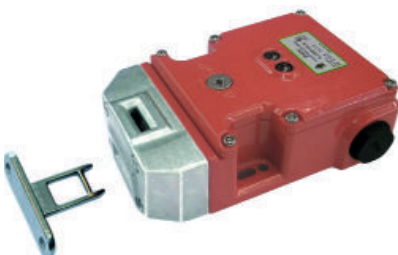
SCHEMATIC CIRCUIT:

KLTM Version (Mechanical only)



Quick Connect (QC) M23 12 Way Male Plug Connector Length 24mm Pin View from Switch	KLTM Switch Circuit
1 3	A1 A2
4 6	11/12
7 8	21/22
2 5	43/44
9	33
10	34
12	Earth

FEMALE QC LEADS	LENGTH	SALES NUMBER
M23 12 Way	5m (15ft)	140143
M23 12 Way	10m (30ft)	140144



SALES NUMBER	SOLENOID VOLTAGE	M20	1/2" NPT	QC M23
RAMZLOCK KLTM Switch	24V ac/dc	450001	450002	450003
RAMZLOCK KLTM Switch	110V ac	450004	450005	450006
RAMZLOCK KLTM Switch	230V ac	450007	450008	450009
RAMZLOCK KLTM Actuator	Standard	Add A	to Sales Part Number	
RAMZLOCK KLTM Actuator	Flat	Add F	to Sales Part Number	
RAMZLOCK KLTM Actuator	Heavy Duty Flexible	Add HF	to Sales Part Number	
RAMZLOCK KLTM Actuator	S/Steel Heavy Duty Flexible	Add HFH	to Sales Part Number	

Ordering Example: KLTM M20 24V ac/dc Heavy Duty Flexible Actuator: Sales Number: 450001-HF

Guard Locking Switch Stainless Steel Type: KLT-SS

FEATURES:

Spring to lock when actuator is inserted. Energise solenoid to unlock.



IP69K



Solenoid Locking Door Interlock Safety Switch with Guard Holding up to 2000N (200Kg) (F1Max)

The KLT-SS Series Guard Locking switch is a tongue type safety interlock switch incorporating traditional mechanical anti-tamper tongue technology utilising IDEM Safety Switches patented cam system.

They interlock and hold closed guard doors to protect operators from moving or hazardous machinery. They are particularly suited to where a high degree of anti-tamper technology is required to prevent accidental or deliberate attempts to by-pass the interlock.

The KLT-SS Solenoid Locking Switch has a mirror polished Stainless Steel 316 body design and have been developed with a maximum holding force of 2000N to keep medium to large guard doors closed until hazards have been removed.

IP69K enclosure protection is maintained by a double seal lid gasket design and metal fixings.

The KLT-SS has a low profile and fixing holes are on an industry standard 73mm centre to enable easy retrofitting to new or existing guards (or where extra anti-tamper is required).

The head has been designed to allow rotation to provide up to 4 actuator entry positions.

CONTACTS:

KLT-SS

4NC Safety Contacts

1NO Auxiliary Contact (Guard Open)

1NO Auxiliary Contact (Guard Locked)

(selectable option for LED2 Guard Locked)

LED1 RED Solenoid Power On

LED2 GREEN Switch Locked (if selected)

FUNCTIONAL SPECIFICATIONS:

Positive Break Contacts to EN60947-5-1

Mirror Polished (Ra10) Stainless Steel 316

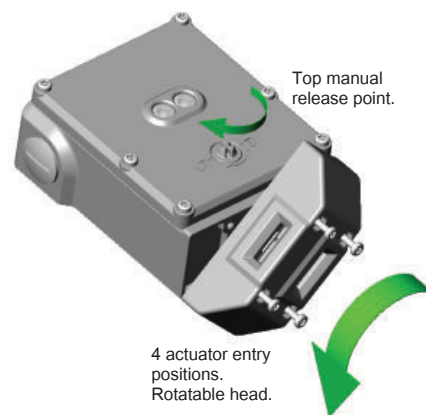
Will fit on 73mm fixing centres

Connects to most Safety Relays to give up to PLe Cat.4

M23 Quick Connector version available for ease of installation

1 manual override points

LED diagnostics for Solenoid, Lock and faults



ACTUATOR OPTIONS (see p76)



A - Standard



HF - Heavy Duty Flexible



F - Flat



HFH - Heavy Duty Flexible
Stainless Steel

For all IDEM switches the normally closed (NC) circuits are closed when the guard is closed actuator inserted.

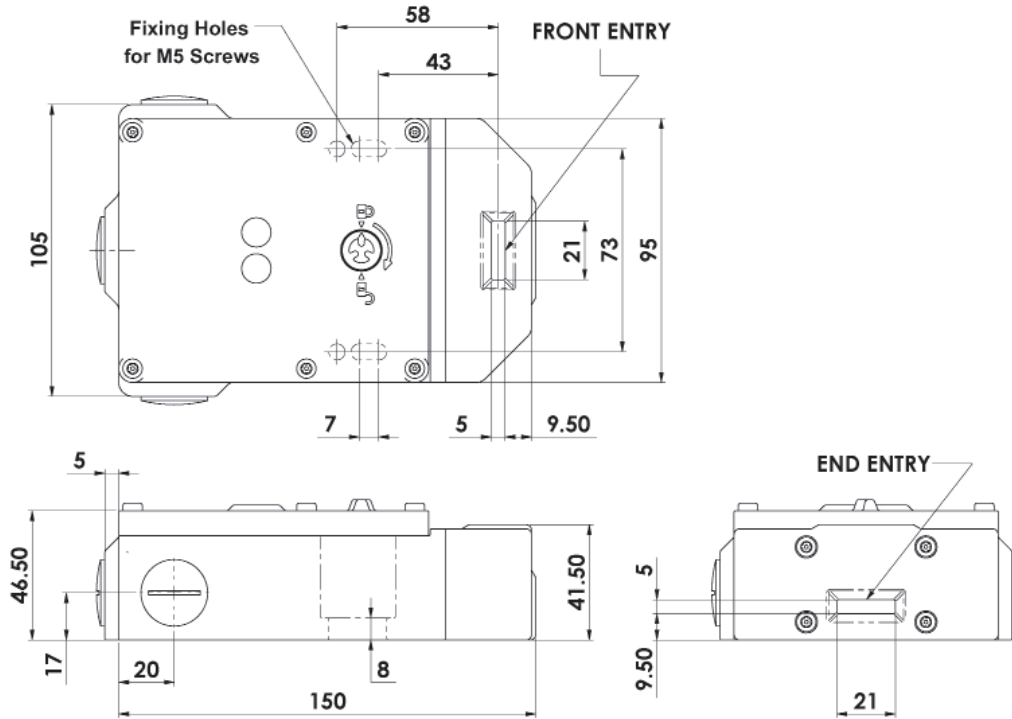
Standards: ISO14119 EN60947-5-1 EN60204-1
ISO13849-1 EN62061 UL508

Safety Classification and Reliability Data:

Mechanical Reliability B10d	2.5 x 10 ⁶ operations at 100mA load
ISO13849-1	Up to PLe depending upon system architecture
EN62061	Up to SIL3 depending upon system architecture
Safety Data – Annual Usage	8 cycles per hour/24 hours per day/365 days
PFHd	3.44 x 10 ⁻⁸
Proof Test Interval (Life)	35 years
MTTFd	356 years
Solenoid Voltage (by Sales Number)	24V ac/dc or 110V ac or 230V ac
Solenoid Wattage	12W
Thermal Current (Ith)	5A
Rated Insulation/Withstand Voltages	600Vac/2500Vac
Travel for Positive Opening	10mm
Maximum Approach/Withdrawal Speed	600mm/s
Holding Force	F1Max 2000N Fzh 1538N
Body Material	Polished Stainless Steel 316
Head Material	Polished Stainless Steel 316
Enclosure Protection	IP69K
Operating Temperature	-25C +40C
Vibration	IEC 68-2-6 10-55Hz + 1Hz
Conduit Entry	Various (See Sales Number)
Fixing	2 x M5

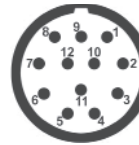
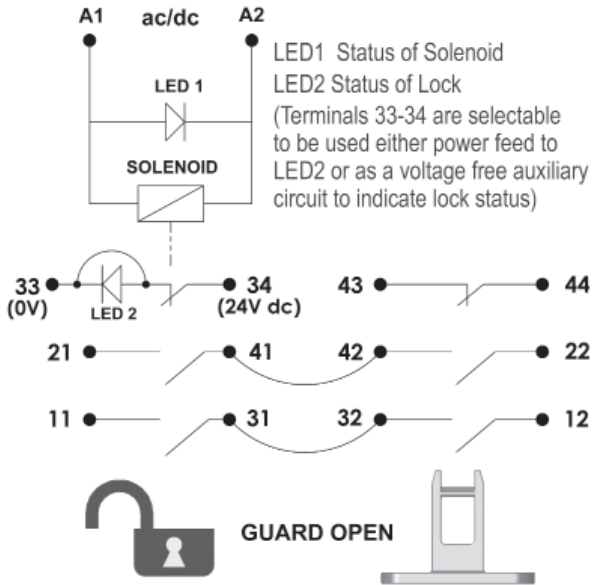
Guard Locking Switch Stainless Steel Type: KLT-SS

DIMENSIONS:



SCHEMATIC CIRCUIT:

KLT-SS Version (Mechanical only)



Quick Connect (QC) M23 12 Way Male Plug Connector Length 24mm Pin View from Switch	KLT-SS Switch Circuit
1 3	A1 A2
4	11/12
7 8	21/22
2 5	43/44
9	33
10	34
12	Earth



FEMALE QC LEADS	LENGTH	SALES NUMBER
M23 12 Way	5m (15ft)	140143
M23 12 Way	10m (30ft)	140144



SALES NUMBER	SOLENOID VOLTAGE	M20	1/2" NPT	QC M23
KLT-SS Switch	24V ac/dc	451001	451002	451003
KLT-SS Switch	110V ac	451004	451005	451006
KLT-SS Switch	230V ac	451007	451008	451009
KLT-SS Actuator	Standard	Add A	to Sales Part Number	
KLT-SS Actuator	Flat	Add F	to Sales Part Number	
KLT-SS Actuator	Heavy Duty Flexible	Add HF	to Sales Part Number	
KLT-SS Actuator	Stainless Steel Heavy Duty Flexible	Add HFH	to Sales Part Number	

Ordering Example: KLT-SS M20 24V ac/dc Heavy Duty Flexible Actuator: Sales Number: 451001-HF