

# Guard Locking Switch Metal: RAMZLOCK KLTM

## FEATURES:



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

### Solenoid Locking Door Interlock Safety Switch Guard Holding up to 3000N (300Kg) (F1Max)

The KLTM Series Guard Locking switch is a tongue-type safety interlock device that integrates traditional mechanical anti-tamper technology, utilizing IDEM Safety Switches' patented cam system.

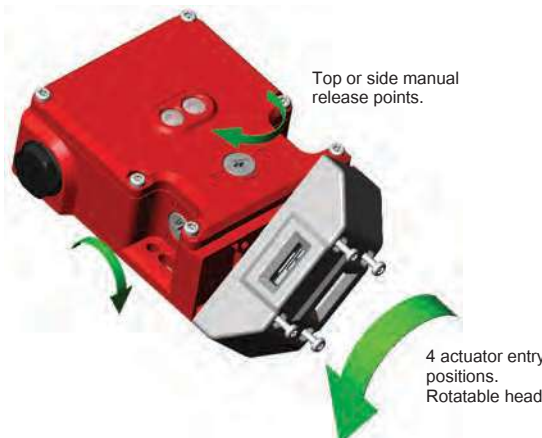
These switches securely interlock and hold guard doors closed, safeguarding operators from moving or hazardous machinery. They are particularly well-suited for applications where high anti-tamper protection is essential to prevent accidental or intentional attempts to bypass the interlock.

The KLTM solenoid locking switch features a robust metal body, designed to deliver a maximum holding force of 3000N, ensuring that medium to large guard doors remain securely closed until all hazards have been removed.

With IP67 enclosure protection, provided by a specialized double-seal lid gasket design and metal fixings, these switches are built to withstand challenging environments.

The KLTM has a low-profile design, with industry-standard 73mm center mounting holes, allowing for easy retrofitting to both new and existing guards, especially in scenarios requiring enhanced anti-tamper measures.

The head is designed to rotate, offering up to 4 actuator entry positions for flexible installation.



Top or side manual release points.

4 actuator entry positions. Rotatable head.

## 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 p154)

Standard



A

Flat



F

Heavy Duty Flexible



HF

Heavy Duty Flexible Stainless Steel



HFH

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 UL 60947-5-1

### Safety Classification and Reliability Data:

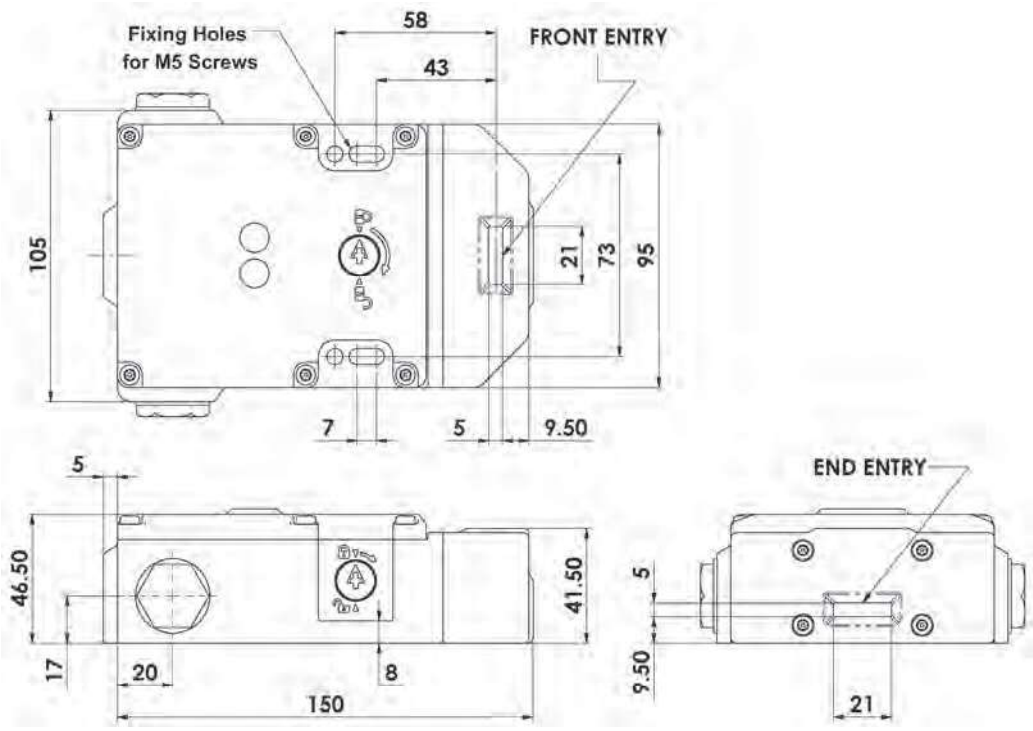
Mechanical Reliability B10d 2.5 x 10<sup>6</sup> operations at 100mA load  
ISO13849-1 Up to PLe depending upon system architecture  
EN62061 Up to SIL3 depending upon system architecture  
Safety Data – Annual Usage 8 cycles per hour/24 hours per day/365 days  
MTTFd 356 years

### Technical Specification:

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 3000N Fzh 2307N  
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

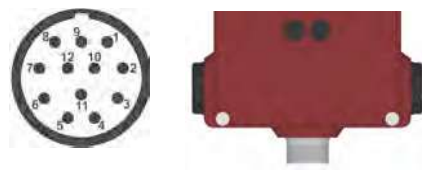
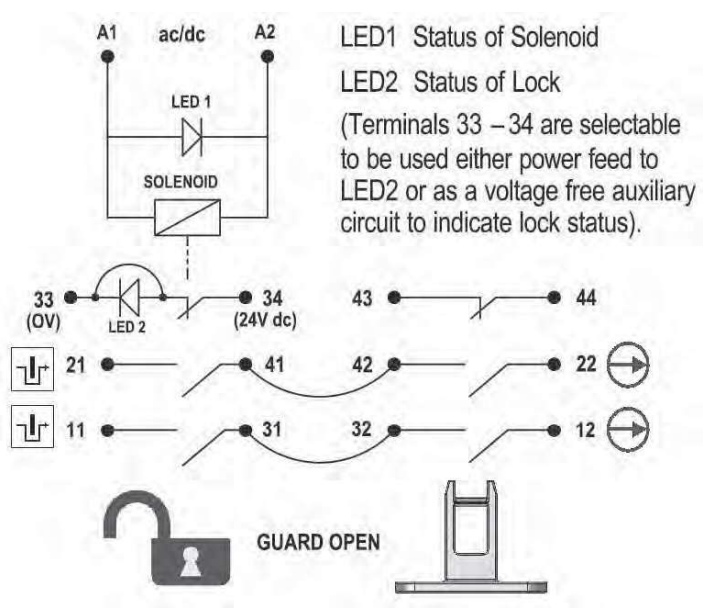
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## DIMENSIONS:



## SCHEMATIC CIRCUIT:

KLTM Version (Mechanical only)



| Quick Connect (QC)<br>M23 12 Way Male Plug<br>Connector Length 24mm<br>Pin View from Switch |   | KLTM<br>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