Altech Corp.® by BERNSTEIN

SLK - SLM Series

Machines that continue running after being switched off are often part of automated production processes. Safety guards prevent operator access and must therefore be kept closed until the hazards posed by machine movement have ceased.

Solenoid Locking Safety Switches are designed to lock the actuating key in the switch, ensuring that safety gates, safety doors and other protective guards remain closed for as long as a hazardous situation exists.

In production processes safety position switches have three main tasks:

- Enabling the machine/process when the safety guard is closed and interlocked
- Disabling the machine/process when the safety guard is opened
- Position monitoring of the safety guard and interlock

The SLK/SLM safety position switches with separate actuators and locking solenoid conforming to EN 1088, EN ISO 12100-1, 12100-2 and since 12/29/2009 to the compulsory Machinery Directive 2006/42/EC.

System description

SLK/SLM safety position switches with locking function are available with spring force locking (normally locked) or magnetic force locking (normally unlocked).

Normally Locked (Spring Force Locked)

With the Normally Locked Versions (F) the actuator key is locked in the switch as soon as it is inserted and requires voltage to be applied to the solenoid in order to remove the key from the switch.

These versions are usually available with a manual override that allow the key to be removed in the event of a power failure.

Normally Unlocked (Magnetic Force Locked)

The Normally Unlocked Version (M) allows the actuator key to be freely inserted and removed, until voltage is applied to the solenoid at which point the key will be locked in the switch.

In the event of a power failure the actuating key can be removed.

Solenoid Operating Voltage

The power used to control the locking (or unlocking) solenoid is supplied to the switch with separate circuit.

Switches with solenoid operating voltages of 24VAC/DC or 110/230VAC are available.

Typical Control Circuits

These switches are typically used in conjunction with a time delay circuit or zero speed monitor to control the voltage to the locking (or unlocking) solenoid.

Safety Contacts

Two independent safety contact blocks are offered. One monitors the position of the key; while the other monitors the locking function.

The contacts in these blocks can be used separately or in series to create the best possible safety circuit for the application.