SICK TR10 Lock Ensures PLe/SIL3 Safety Locking of Moveable Machinery Guards

SICK has introduced the TR10 Lock for highly-reliable mechanical locking of moveable safety protection on machinery, such as guards, hoods, flaps, doors and screens.

The SICK TR10 Lock is a safety locking device providing PLe (EN ISO 13849) SIL3 (IEC 61508) protection for personnel and processes through physical locking of **(Read More)**

moveable safety equipment such as guards and screens to prevent access to, or interference with, machinery in a hazardous area.

Equipped with two Output Safety Switching Devices (OSSDs), the SICK TR10 Lock is a type 4 device (EN ISO 14119) and offers a choice of universally-coded or unique-coded variants. The unique-coded variant accepts only previously taught-in actuators, which means it has a high coding level and therefore removes the need for additional measures for protection against manipulation during mounting (EN ISO 14119). It can be cascaded in series with up to 30 devices in large installations with minimal cabling and connection costs.

“The TR10 Lock features an RFID-triggered solenoid locking bolt that extends into the actuator for physical prevention of opening, or movement, of a safety guard. The holding force of 1300N ensures effective protection and the TR10 can be mounted in several different ways to make it easy to integrate with the machine design.

“The TR10 Lock is especially useful in situations where fault masking may be an issue, since they can be connected in series quickly, easily and independently of control units. The safety level (PLe/SIL3) is not lost because the OSSD semiconductor outputs reliably detect any errors,” explains SICK safety specialist, Dr Martin Kidman. “The TR10 locking bolt is only extended when the correct solenoid actuator is detected. It can be used with a universal code

for all the actuators in an installation, or coded uniquely to one actuator.

“The RFID transponder OSSD is only triggered when the bolt is fully extended or withdrawn, to eliminate unsafe situations. The high coding level of the actuator means that all of the requirements of EN ISO 14119 can be met without additional measures.”

The TR10 Lock is equipped with a bi-stable solenoid, so it uses only a small amount of power and does not produce heat, whether locked or unlocked. Both power-to-lock and power-to-release versions are available. LED indicators signal device status providing fast diagnostics

The slim housing of the SICK TR10 Lock is rated IP67, IP69K which makes it ideal for use in harsh environmental and wash-down conditions, for example where strict hygiene must be maintained or for use in heavily contaminated areas. With four different approach directions for the actuator and a very versatile mounting, the TR10 Lock can be installed in a wide variety of machine situations for proven protection.

For more information on the SICK TR10 Lock and other SICK safety equipment, please contact
Andrea Hornby
on 01727 831121
or email andrea.hornby@sick.co.uk.