Safe is safe – lockout and starting with a single system
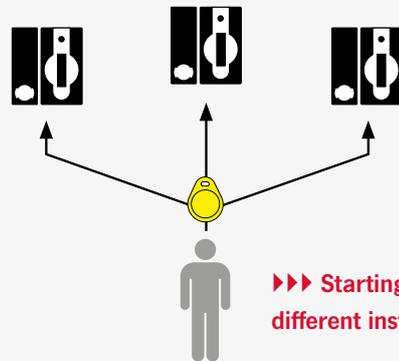
Safe key system **CKS2**

EUCHNER

More than safety.

THE SAFE **KEY SYSTEM** CKS2
MANY OPTIONS WITH A
SINGLE BASE
DEVICE

▶▶▶ **Starting sequences in different installation areas**

Identical locking safe key system

Simple authorization assignment for starting specific process sequences in different installation areas

▶ Manual mode for service, setup, etc.
▶ Material loading

Benefits for you:

➕ Simple authorization assignment during the teach-in operation
➕ One key for several base devices

▶▶▶ **Stopping the installation**

Safe lockout system

Stopping the installation to access a dangerous area. The installation cannot be started without a key.

▶ Maintenance and service
▶ Material loading

Benefits for you:

➕ No mechanical wear
➕ Flexible combination with EUCHNER guard locking devices
➕ Safe restart lockout up to category 4 / PL e

Talk to us.
We would gladly help you analyze your application and plan your custom CKS2 concept.

▶▶▶ **Starting a defined sequence**

Unique locking safe key system

Simple authorization assignment for starting a defined process sequence

▶ Manual mode
▶ Maintenance

Benefits for you:

⊕ No need for complex programming
⊕ Uncomplicated key management

▶▶▶ **Starting a defined sequence by several operators**

Authorization system for several operators

Authorization system for several keys with the same key code and different key identification

▶ Formation of operator groups
▶ User data can be read via IO-Link

Benefits for you:

⊕ Simple configuration of custom authorization concepts
⊕ Several authorized operators can use the same key adapter.

▶▶▶ **Stopping the installation**   ▶▶▶ **Starting a defined sequence**

Key transfer system

The key is removed to stop the installation and inserted within the installation to start a defined sequence.

▶ Service and maintenance
▶ For passage areas

Benefits for you:

⊕ No key exchange box or distribution station required
⊕ Flexible and easily expandable
⊕ Safe up to category 4 / PL e

THE SAFE KEY SYSTEM **CKS2**

In combination with highly coded, transponder-based keys, the key adapter CKS2 forms a safe system that meets the highest safety requirements for machine and installation lockout and starting. Thanks to the integrated evaluation electronics, the compact CKS2 system can solve many tasks for you.

■ Simple operation

When the key is inserted into the key adapter, the data on the key are read and checked for validity. If the key is recognized as valid, the safety outputs switch. Keys are taught-in directly on the key adapter, without complex programming.

■ Absolute safety

Proven transponder technology and the use of keys with a high coding level provide absolute safety. The CKS2 system can be integrated into installations with the highest safety requirements, such as category 4 / PL e according to EN ISO 13849-1.

■ FlexFunction for versatile use

The CKS2 system is a FlexFunction device enabling various applications depending on the key version. As a lockout system, key transfer system or authorization system, the CKS2 system is the right choice wherever dangerous machine movements must be safely started or stopped independently of the existing safeguards. It provides a wide range of applications when combined with the proven EUCHNER safety switches or as a submodule for the innovative door locking system MGB2.

CKS2 COMPACT DEVICE IN DETAIL

▶ **Proven mechanical detent mechanism of the inserted key**
withstands even vibrations

▶ **Simple diagnostics by means of new RGB LED**
enables rapid troubleshooting

▶ **Degree of protection IP67**
suitable for industrial use

▶ **Compact, robust design**
for space-saving mounting on the guard

▶ **Simple rear wall mounting**
shortens installation and conversion times

▶ **Industry 4.0 ready**
communication capability when combined with an EUCHNER IO-Link Gateway

▶ **Transponder coded with high coding level**
for maximum protection against tampering

▶ **Keys available in different packaging units**
for diverse applications in your production process

▶ **Cover and key available in various colors**

ALSO AS SUBMODULE **MSM-CKS2**

The new CKS2 submodule with innovative functions considerably expands the applications for the door locking system MGB2. Here too, all applications from lockout systems and key transfer system to authorization systems are possible. The system can be linked to PROFINET / PROFIsafe or EtherCAT / EtherCAT FSoE using the bus module MBM.

■ Modular expansion possible

Depending on the version, the submodule is available for various connections in the MGB2 world. More than 1,000 different keys can be used thanks to the proven transponder technology and the high coding level. Complicated configuration and complex key management are no longer necessary. This makes the CKS2 submodule an excellent solution for use in fully automated logistics systems or complete turnkey installations.

■ Great flexibility

The electronic principle of operation eliminates the need for key exchange boxes and key distribution stations. Applications are defined directly in the control system for unlimited flexibility.
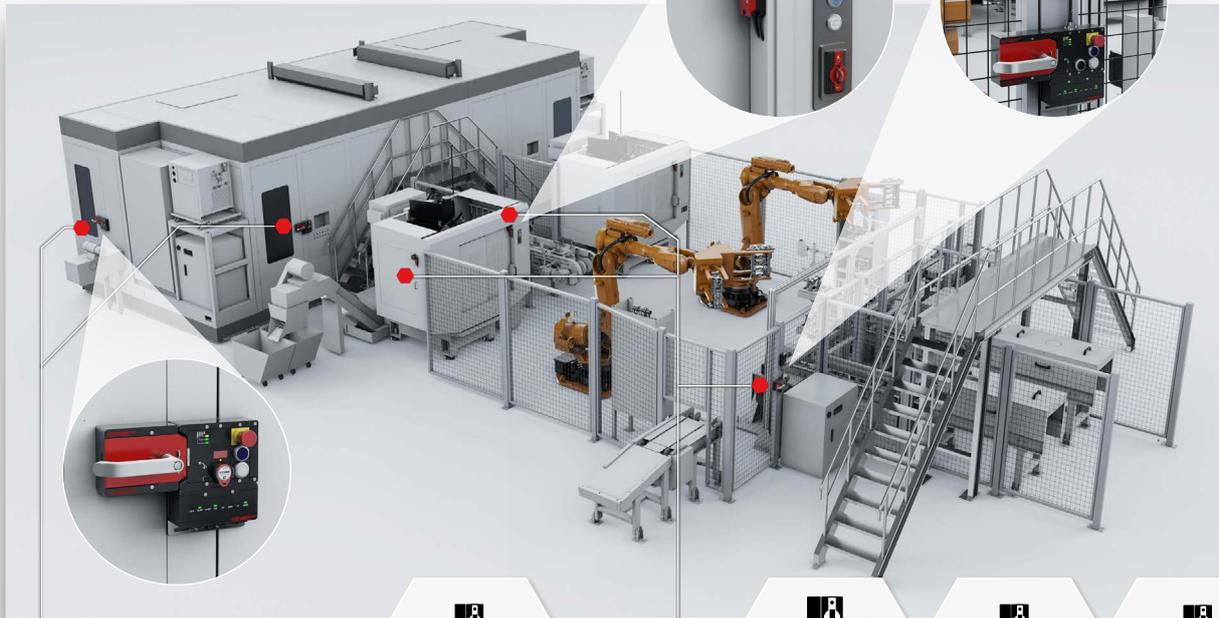
MSM-CKS2 IN DETAIL

▶ **Key adapter with freely controllable LEDs** (red, green, yellow)

▶ **Can be mounted on locking modules MGB2 or the extension module MCM**

▶ **Proven mechanical detent mechanism of the inserted key**
withstands even vibrations

▶ **Transponder coded with high coding level**
for maximum protection against tampering

▶ **Keys available in different packaging units**
for diverse applications in your production process

▶ **RGB LED for simple diagnostics**

▶ **Replaceable slide-in labels**
to identify the key color

▶ **Simple scalability**
in the extension module MCM

CKS2 as authorization system

Application examples

Application 1

▶ The key is inserted to access the installation.

Application 2

▶ All authorized keys can be used to access the installation.
▶ Different operating modes according to key identification are possible on the control panel inside the installation. Example:
  ▪ The green key can be used to stop or start the machine and open the flaps.
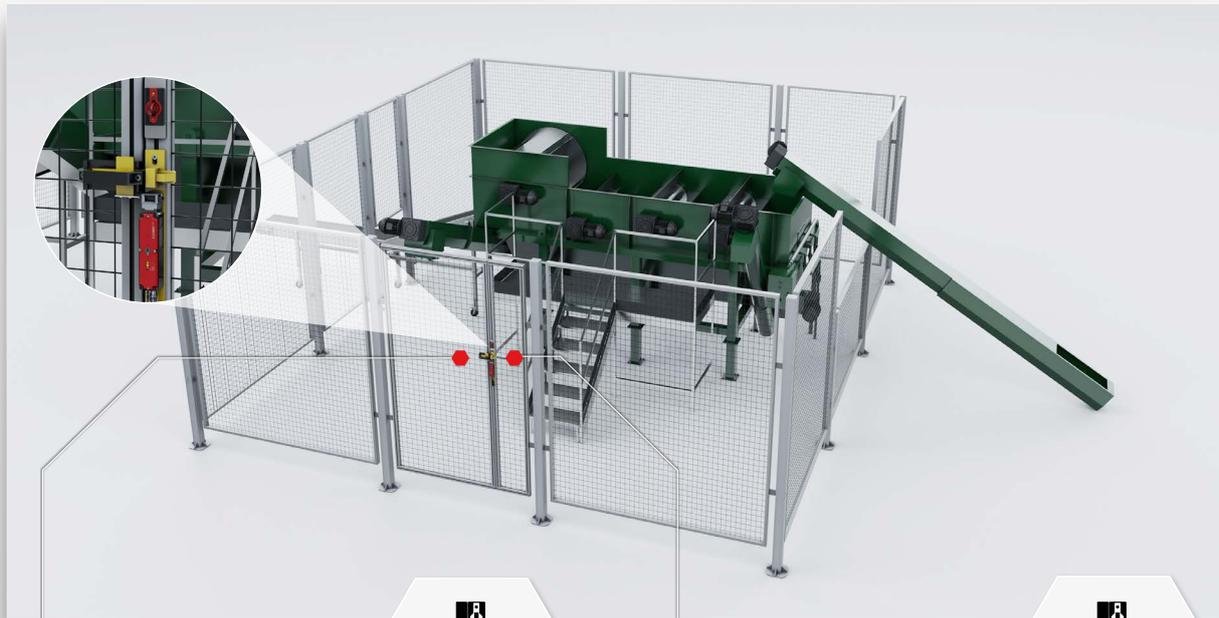 ▪ The blue key can be used to operate the machine in manual mode and open the flaps.

Benefits

➕ Simple authorization assignment without programming thanks to different key identification
➕ One key can be taught-in and used on several key adapters
➕ Flexibly scalable
➕ Can be expanded to form a key transfer system

Possible combinations

▶ As a submodule in an MGB2 locking module with pushbutton for starting or stopping the machine
▶ As a compact device in combination with a safety switch with BP/BR technology
▶ As a safe authorization system for control panels

CKS2 as lockout system

Application examples

Application 1

▶ The installation can be started only when the key is inserted.

1. The machine is stopped and the key is withdrawn for safe access to the installation. Only then can the door be opened.
2. The door is closed after the work in the installation interior is compete. The safety switch locks the door only when the key is inserted.

▶ With this application, all operators can withdraw the key and access the installation.

Application 2

▶ The installation runs in automatic mode when a key is not inserted.

1. The machine cannot be stopped until a valid key is inserted. The key must be withdrawn to access the installation safely; the door is opened.
2. The door is closed after the work in the installation interior is compete. The door is safely locked only when the key is withdrawn. The machine can be started.

▶ The key is not publicly accessible in this application. It is handed over to an authorized person instead.

Benefits

➕ Direct teach-in of the key at the key adapter
➕ Can be expanded to form a key transfer system
➕ A lost key can simply be replaced. The lost key will be blocked

Possible combinations

▶ As a submodule in an MGB2 locking module with pushbutton for starting or stopping the machine
▶ As a compact device with a BP/BR safety switch
▶ Several CKS2 devices connected in series if several persons work in the installation at the same time

CKS2 as key transfer system

Application examples

Application

▶ The installation can be started only when the key is inserted.

1. The machine is stopped and the key is withdrawn for safe access to the installation. Only then can the door be opened.

2. The installation interior can be accessed. The safety door is closed from the inside and locked.

3. The key is inserted at the machine inside the installation. Only a manual mode can be started.

4. The key is withdrawn after the work in the installation interior is compete. The door can be opened.

5. The inner installation area is left, the door is closed and the key is inserted.

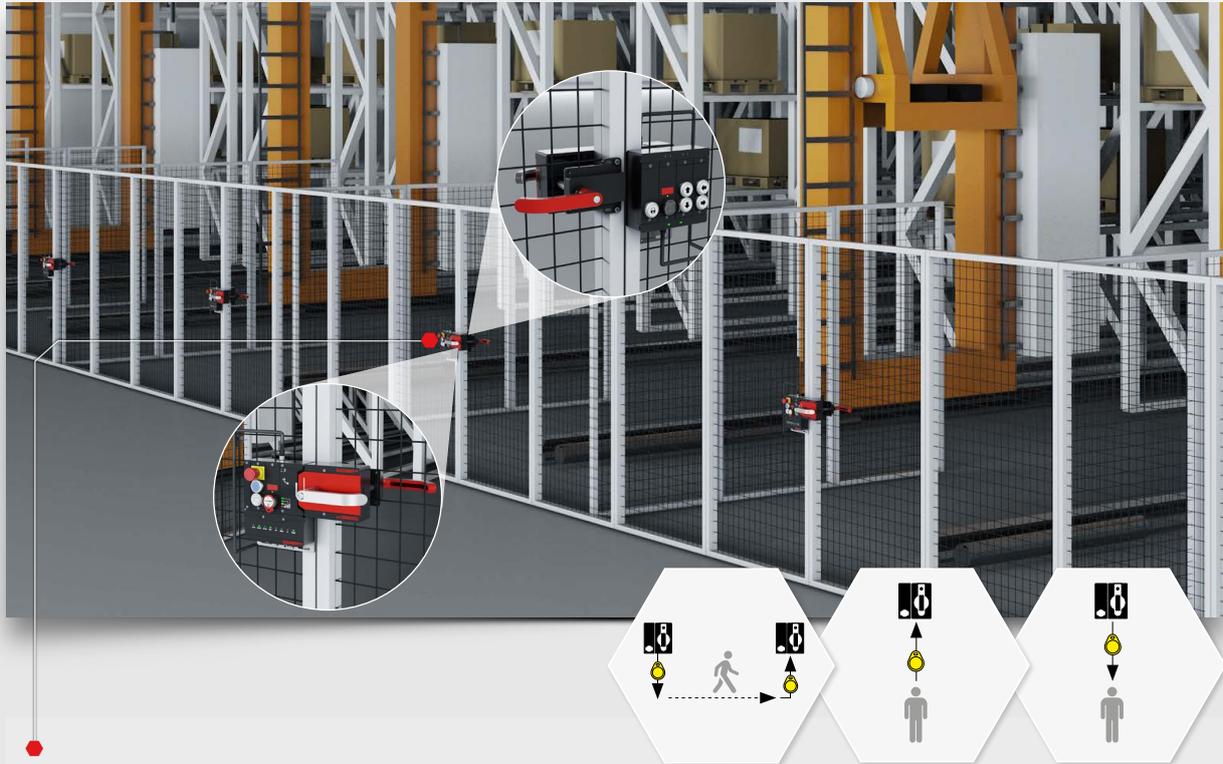▶ The door is safely locked, and the machine can be started.

Benefits

➕ The safety outputs are controlled via the control system. A main switch is not needed

➕ One key can be taught-in and used on several key adapters

➕ Expandable to form an authorization system

Possible combinations

▶ As a submodule in an MGB2 locking module with pushbutton for starting or stopping the machine

▶ As a compact device in combination with a safety switch with BP/BR technology

▶ For securing hand-held pendant stations

CKS2 – many functions in a single system

Application examples

Application

▶ The safety door of each transport aisle is secured by a guard locking device MGB2 Modular with MSM-CKS2. No key is inserted during automatic operation.

1. To stop the installation in the respective aisle, the assigned key is inserted and a pushbutton is pressed.

2. They key is withdrawn, and the door can be opened to access the aisle.

3. After the aisle is accessed, the door is closed from the inside. The same key is inserted into a second key adapter in the interior. Pressing a pushbutton on an extension module MCM controls the guard locking of the safety switch.

4. The automatic storage and retrieval equipment can now be controlled manually using additional pushbuttons or a hand-held pendant station.

5. The key is withdrawn when the automatic storage and retrieval equipment reaches the correct position. The automatic storage and retrieval equipment is safely stopped. Work can be performed inside.

6. To leave the aisle, the key is inserted into the inner key adapter on the door. The door is opened using a pushbutton.

7. The key is withdrawn and the aisle is left.

8. The safety door is closed from the outside. The key is inserted. Guard locking is controlled via a pushbutton. The safety door is locked, and the installation can be started. The key is withdrawn again to continue automatic operation.

Benefits

➕ Safe system with just one key: a key exchange box or distribution station is not needed

➕ The key can be taught-in and used on several key adapters

➕ Each safety door and the associated aisle can be secured with exactly one key

OUR PRODUCTS FOR YOUR SAFETY

SAFE DOOR DETECTION
Transponder-coded safety switches without guard locking
CES-C04 / CES-C07

Magnetically coded safety switches without guard locking
CMS

Electromechanical safety switches without guard locking
NM / NP / GP / NZ

SAFE GUARD LOCKING
Transponder-coded safety switches with guard locking
CTS / CTM / CTP / CTA / CET

Electromechanical safety switches with guard locking
TP / STP / STA / STM

Safety switches with integrated mounting magnet
CEM-C40 / CEM-C60

DOOR LOCKING SYSTEMS
MGB / MGBS / MGB2 *CLASSIC*
MGB2 *MODULAR* (MGB2 PROFINET / MGB2 EtherCAT)

ACCESS CONTROL SYSTEMS
EKS / EKS *Light* / EKS *Modular* / CKS / CKS2

OPERATING DEVICES
ZSM / ZSB / HBA / HBM

LIGHT GRIDS / LIGHT CURTAINS
LCA

EMERGENCY STOP DEVICES
ES / RPS

SAFETY CONTROL SYSTEMS / SAFETY RELAYS
MSC / ESM / ESM-CB / GWY

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