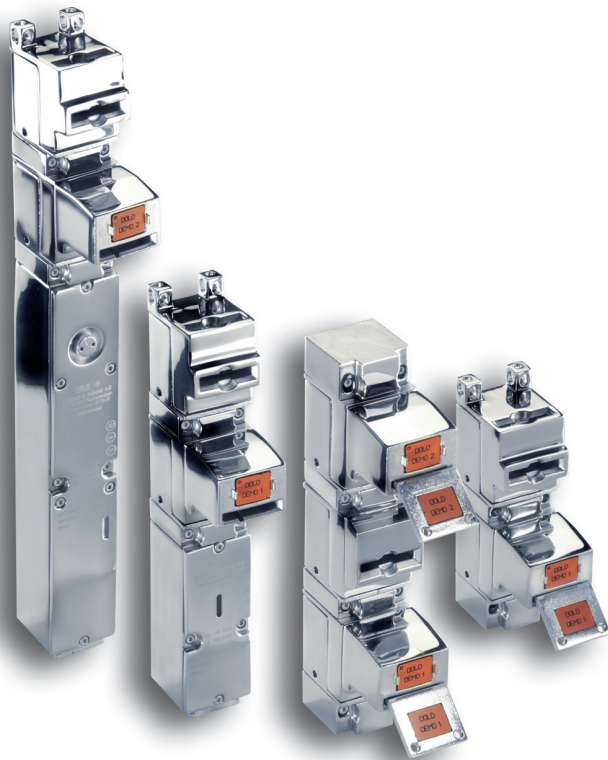


### SAFEMASTER STS Safety switch- and key interlock system System overview

0261528



#### Your advantages

##### Cost Saving:

- Reduced wiring
- Cost saving simple installation
- Mechanical (part) solutions save wiring cost in ATEX areas

##### Robust Design:

- Stainless steel
- All modules of one unit can be mounted separate
- For harsh ambient conditions, e. g. vibration, extreme temperature, dust, moisture, dirt

##### Optimised Ergonomics:

- Key and actuator modules can be mounted in 4 directions
- Plug-in keys for fast and easy operation

##### High Flexibility:

- Very flexible in concept, optimum adaptation to your process
- Easy to redesign when expanding systems
- Can be used for many applications, e. g. valves, gates, covers

##### Functionality and Safety:

- Protects against being locked in
- Over 46000 key codes

#### Approvals and marking



#### Additional information about this topic

- Datasheets, short description and system description about SAFEMASTER STS products on request, you will find also information on Dold-Portal on [www.dold.com](http://www.dold.com) or at PRODUCTS & SERVICES → Safety switch and trappedkey interlock system

#### Applications

Safety should not be difficult. The SAFEMASTER STS has been developed to offer efficient operation and optimum protection for dangerous areas protected by fences with gates access to the operator. In addition it protects against being locked inside the dangerous area during repair and maintenance.

##### The Idea

The safety concept adapts to specific customer demands with respect to the individual processes and not vice versa. Therefore it can be used in nearly all applications using safety fences and covers that are operated in rugged ambient conditions.

##### The Solution

SAFEMASTER STS is a modular, most flexible system solution of safety switches, interlocks and trapped key system combining the advantages of all 3 systems: the mechanical units can be integrated without wiring into the machine and plant concept and provide a cost effective protection solution for large applications to secure maintenance gates. It is also suitable for ATEX and high temperature applications. Electromechanical units are used to enable mechanical units and to protect frequently used entry points. In conjunction with safety controllers (e.g. SAFEMASTER series) dangerous movements are stopped when the gate to a dangerous area is opened, or the gate access is only enabled after the dangerous movement is stopped. The 46000 different key codes allow a forced or partly forced access sequence.

## The Components

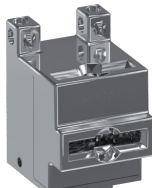
The modular design of SAFEMASTER STS allows individual adaptation to the actual application. Using only few different basic modules a great number of functional units can be built by joining them via bayonet junctions. The function of a unit is dependant on the type of module and the mounting position. The combinations of the different units define the function of the complete safety system.



Coded Key



Actuator module  
B, D, K, E



Actuator module A



Key module  
10, 10 S



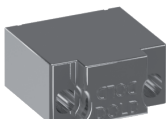
Key module  
01, 01S R1



Pad-lock module  
V, W



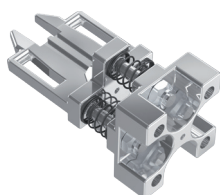
Bayonet ring



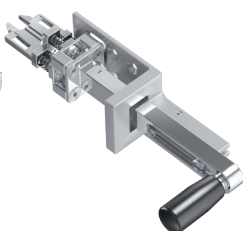
End module M



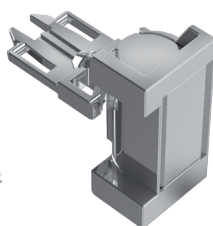
Standard actuator



C-actuator



CS-actuator



J-actuator



Locking module  
Z\_, Y\_



Switch module  
S\_, R\_

## The System

The SAFEMASTER STS system offers far more than just the combination of safety switches and a key interlock system. It adds the advantages of both systems by the interconnection of wireless mechanical components and electrical protection. It is very flexible and can be easily adapted to the requirements of the user.

The system offers maximum safety and respects the requirements of the user concerning robustness, long life and user ergonomics. Special features are stainless

steel units with ergonomic linear keys. It is flexible, can be easily extended and guarantees a safe and interruption free process, offering an intelligent and cost saving solution for industrial applications of all kinds.

With only a few single components, a number of individual interlock units can be assembled. The stainless steel units guarantee good stability. Extensive equipment allows a simple mounting.

- 1 End module M
- 2 Actuator module B
- 3 Padlock module
- 4 Actuator module A
- 5 Bayonet ring
- 6 Key module
- 7 Switch modul
- 8 Solenoid locking module



Example: SX01A:

Accessories (without picture):

- Mounting plate to install an STS-unit
- Mounting plate to install an STS-CS-actuator
- Mounting frame to install an STS unit into an operating panel

### Example

The SAFEMASTER STS Program consists of modules that can be individually combined and adapted to your application. They combine the advantages of safety switches, interlocks and key transfer in one system.

The modular design allows systems to be assembled out of several units, or to modify and expand existing systems as required. All mechanical interlocks can be utilised in machine and plant concepts without wiring. They provide an economic and reliable protection in wide applications.

The picture shows a press with several access gates. When opening the main entry gate A during operation, the machine stops immediately. To open the maintenance gates B the following sequence has to be followed: Open gate A, take out coded key, insert key in gate B, open gate B. After reversing the procedure the production may be started again.

**Advantage:** The maintenance gates are made safe without wiring.

