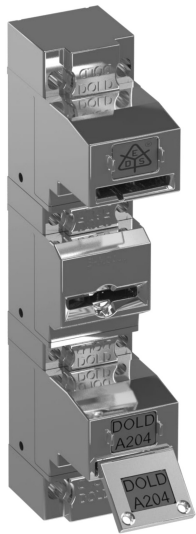


SAFEMASTER STS Safety Switch- And Key Interlock System Basic Unit STS-M10B01M



0256038



**Presentation
in the deactivated condition:**
1. Key inserted;
Actuator and 2nd key removed

STS-System Benefits

- TÜV certificate according to the legal and standard requirements
- For safety applications up to PLe/Category 4 according to EN/ISO 13849-1
- Modular and expandable system
- Rugged stainless steel design
- Wireless mechanical safeguarding
- Combines the benefits of safety switch, solenoid locking and key transfer in a single system
- Easy installation through comprehensive accessories
- Protection against lock-in

Features STS-M10B01M

The unit is particularly suitable for applications with:

- Full body access (lock-in danger)
- Optional key removal
- Several secured entries
- ATEX areas
- Extremely rugged ambient conditions

Approvals and marking



Function

Mechanical solenoid lockings for separating guards with forced key entry and optional key removal.

Application

To secure separating guards such as safety gates and hoods in machine and plant engineering.

Design and Operation

Attention!



Hazards must be ruled out before a key can be entered and the movable part of the guard can then be opened!

Optionally, another key can be removed. The STS solenoid locking unit is to be integrated into a system and connected with a control unit so that the hazardous machine can run only when the guard is locked and closed.

After entering a first key into key module 10 the actuator can be removed from actuator module B and the access can thus be opened. The first key is blocked and the second key released after removing the actuator. The actuator is blocked when the second key is removed from key module 01. This ensures an escape route. Only after the second key and the actuator (access is locked) were returned to their starting position can the first key be removed again and the solenoid locking is activated.

STS-M10B01M is used in the system in connection with additional STS units and SAFEMASTER products. The first key to be entered may originate from these units (e.g. release through upstream solenoid locking STS-ZRH01A in connection with a speed monitor UH 5947 or standstill monitor LH 5946). The second key, optionally to be removed, can serve as protection against lock-in or for the operating release of additional units (e.g. STS-M10A, STS-M11A, STS-M12M, STS-M10B01M).

Technical Data

Enclosure: Stainless steel V4A / AISI 316L
Degree of protection: IP 65
Temperature range: - 25 °C to + 65 °C
Storage temperature: - 40 °C to + 80 °C
Mechanical principle: Rotating axis with redundant actuation
B10_g: 2 x 10⁶ switching cycles
min. operating speed: 100 mm/s
max. operating speed: 500 mm/s
(max. switching frequency: 360/h
Locking force: min. 1000 N
Depending on actuator and actuator module

Shearing force: min. 1000 N; depending on actuator
Test principles: EN ISO 13849-1:2008
EN 1088+A2:2008
EN 60947-5-1:2005
GS-ET 19:04.2004
Intended use: up to max. cat. 4, PL e according to EN ISO 13849-1 according to DIN EN 50041

Mounting:
Additional requirement for cat. 4 structure (as single unit):

Add 2nd actuator module, Type M10BB01M

Diagnostic coverage (DC), (mechanical):

Logic and output

STS-M10B01M: 79 %
STS-M10BB01M: 99 %
Fault exclusions: none

Protection against faults of common cause: see table in STS design guide
Repair and replacement: only by manufacturer
Test intervals: semi-annually recommended, min. once a year

Variants and Combination Options

Because of their modular design the basic units of the Safemaster STS System can be combined and expanded according to customer requests. This allows for a variety of possible units and functions.

Overview of the basic units

Group of the basic unit	Application			
	Basic function with separate actuator	Forced key removal as protection against lock-in or to operate additional units	Optional key removal as protection against lock-in or to operate additional units	Units without actuator
Mechanical	STS-M10A	STS-M11A	STS-M10B01M	STS-M12M
Locking	STS-ZRHA	STS-ZRH01A	STS-ZRHB01M	STS-ZRH01M
Switch	STS-SXA	STS-SX01A	STS-SXB01M	STS-SX01M

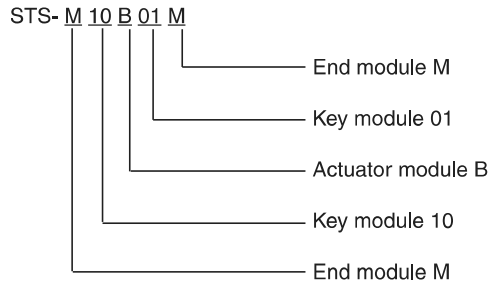
For additional information refer to the data sheets of the individual modules and other basic units.

Data sheets

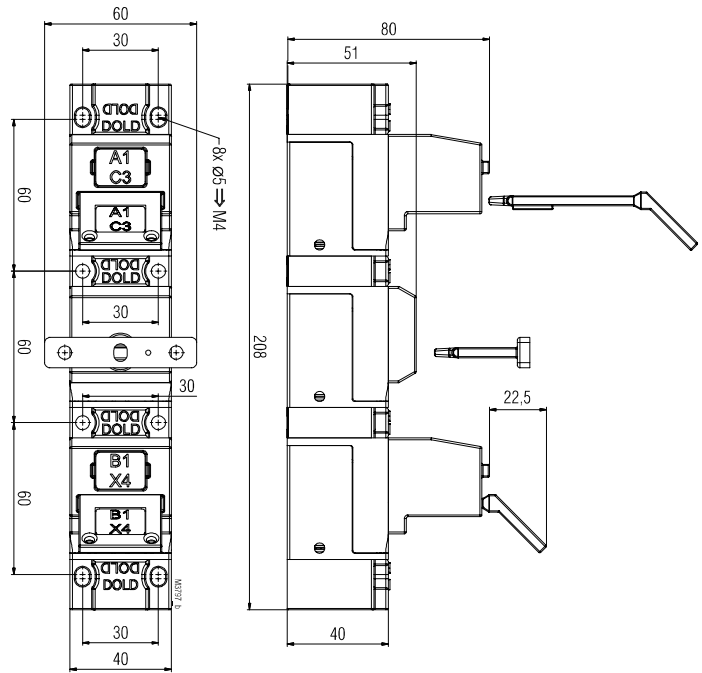
STS End module M
STS Key module 01/10
STS Actuator module B

Info Take advantage of the advice of the **E. DOLD & SÖHNE KG** specialists regarding the choice of units and combination of a system.

Ordering Example



Dimensional Drawing [mm]



Clearance tolerances ± 2%

