



# **SAFEMASTER STS** **Safety switch-** **and key interlock system** **mounting plate / front plate**



**Translation  
of the original instructions**



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## Symbol and Notes Statement



**DANGER:**  
Indicates that death or severe personal injury will result if proper precautions are not taken.



**WARNING:**  
Indicates that death or severe personal injury can result if proper precautions are not taken.



**CAUTION:**  
Indicates that a minor personal injury can result if proper precautions are not taken.



**INFO:**  
Referred information to help you make best use of the product.



**ATTENTION:**  
Warns against actions that can cause damage or malfunction of the device, the device environment or the hardware / software result.

## General Notes

The product hereby described was developed to perform safety functions as a part of a whole installation or machine. A complete safety system normally includes sensors (SAFEMASTER STS System), evaluation units, signals and logical modules for safe disconnections. The manufacturer of the installation or machine is responsible for ensuring proper functioning of the whole system. DOLD cannot guarantee all the specifications of an installation or machine that was not designed by DOLD. The total concept of the control system into which the device is integrated must be validated by the user. DOLD also takes over no liability for recommendations which are given or implied in the following description. The following description implies no modification of the general DOLD terms of delivery, warranty or liability claims.

## Notes



**Risk!**  
**Danger to life or risk of serious injuries.**

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



**INFO**

- For information regarding use in the system and validation according to EN ISO 13849-2, see SAFEMASTER STS application guide.
- Take advantage of the advice of the **E. DOLD & SÖHNE KG** specialists regarding the choice of units and combination of a system.



**ATTENTION !**

- To avoid wrong usage (e.g. by overload, mounting position or usage in acid, alkaline or other hostile ambient conditions) the limitations of the product have to be observed. Please check in advance if your application requires the usage of the more robust stainless steel model of SAFEMASTER STS. The requirements of the mounting and operating instruction must be fulfilled.



Before installing, operating or maintaining this device, these instructions must be carefully read and understood.



The installation must only be done by a qualified electrician!



The installation must only be done by a qualified mechanic!



Do not dispose of household garbage!  
The device must be disposed of in compliance with nationally applicable rules and requirements.



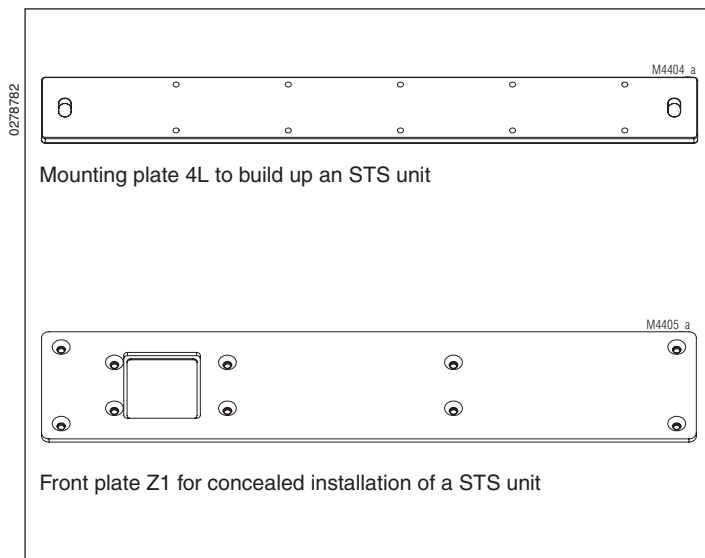
Storage for future reference.

To help you understand and find specific text passages and notes in the operating instructions, we have important information and information marked with symbols.

## SAFEMASTER STS

### Safety switch- and key interlock system

#### Mounting plate / Front Plate



#### STS-System Benefits

- EU-Test certificate according to the directive 2006/42/EG, annex IX
- For safety applications up to PLe/Cat. 4 according to DIN EN/ISO 13849-1
- Modular and expandable system
- Rugged stainless steel design
- Wireless mechanical safeguarding
- Combines the benefits of safety switch, locking module and key transfer in a single system
- Easy installation through comprehensive accessories
- Protection against lock-in
- Coding level low, medium, high according to DIN EN ISO 14119:2014-03

#### Features

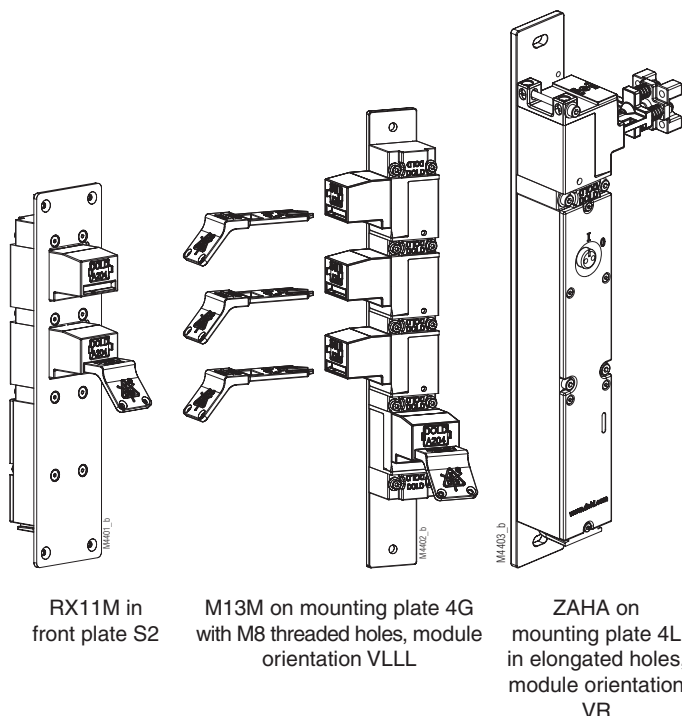
- For surface and flush-mount installation of units
- Easier mounting
- Preassembled modules available in the requested direction

#### Product Description

The mounting plate facilitates the easy attachment of SAFEMASTER STS units to machines and plants.

The front plate enables the concealed installation of the SAFEMASTER STS units, e. g. in switching cabinets or machine enclosures.

#### Installation Examples



#### Design and Function of the Mounting Plate

The mounting plate is made of acid-resistant stainless steel 1.4404 (V4A / AISI 316L). The threaded holes in the mounting plate allow many different installation options for max. 10 mechanical SAFEMASTER STS modules. They can be supplied preassembled upon request.

The mounting plate is available in different sizes and is suitable to be mounted on fences and system profiles. The plate can thereby be fastened using bolts with sliding blocks or by welding.

The front plate is also made of stainless steel 1.4404 (V4A / AISI 316L). The holes in the frame enable the simple installation of a SAFEMASTER STS unit with up to 4 modules. Additional holes are available for installation in a precut opening in the switching cabinet or machine enclosure. A nitrile rubber seal is bonded to the back. The front plate is available in different sizes and is suitable for the concealed installation of STS units in switching cabinets or similar. For installation in a switching cabinet we recommend the use of key modules e.g. 01S or 10S with protective cover to prevent dirt from entering.

**Please note when designing your switching cabinet that the SAFEMASTER STS key modules are not sealed and can reach max. IP20.**

#### Important Note



To prevent faults of joint cause as required in EN ISO 13849-1 (CCF) it must be ensured that the mounting plate or the front plate on which the Safemaster STS units are installed cannot become detached!

We therefore recommend welding the mounting plate or the front plate to the plant or to secure it otherwise against loosening.

## Mounting Plate Selection Aid

The selection table below helps your search for the correct mounting plate. It contains information on the maximum possible number of modules which can be mounted each on the specific plate version.

Procedure:

1. Determine which STS unit shall be mounted on the mounting plate.
2. Define the number of installed mechanical modules. Also think about reserve space for future extensions. A solenoid lock needs the space of 3 mounting sections.
3. You find the article numbers depending on the way of mounting (slotted hole or thread hole) in the corresponding column.

## Notes

**Please note that the mounting plates can be fixed with slotted holes or M8 thread holes!**

**When defining the right mounting plate please take in account the futur system extensions, the number of mounting sections for a module and also the required space volume of the modules.**

**The delivery includes the: The mounting plate and the installation of an STS unit including mounting material. customers requirements, e. g. mounting directions of modules can be included (see defining the mounting direction of the modules for the mounting plate).**

**Not included in the delivery are the actual STS units.**

## Definition of the Module Orientations for Mounting Plate

The direction from which an actuator or key is inserted when viewing the STS unit vertically from the front is relevant here. The selection options are Left (L), Front (V) as well as Right (R) and are specified from bottom to top with the product designation.

### Selection example 1:

1. STS-unit: SXB02M
2. Define number of installed units:  
1 x switch module SX + 1 x B-module + 2 x ey module 01 = 4 modules (mounting sections)
3. The mounting plate should be fixed with slotted holes.  
Under number of modules 4 look up mounted plate 4L and find article number: 0062907.
4. Define the mounting direction of the modules:  
Switch SX can only be mounted face to front (V).  
The actuator e. g. should be inserted from the right side (R)  
and the keys from the front (VV)  
The ordernumber is then: **0062907 / VRVV**

### Selection example 2:

1. STS-unit: M10A
2. Define number of installed units:  
1 x key module 10 + 1 x A-module = 2 modules (mounting sections)
3. The mounting plate should be fixed with thread holes.  
Under number of modules 2 look up mounted plate 2G and find article number 0062861.
4. Define the mounting direction of the modules:  
the key is inserted from the left side (L) and the actuator from the right side (R).  
The ordernumber is then: **0062861 / LR**

Mounting Plate Selection Table

Number of assembled modules (Rastereinheiten)	Mounting plate with elongated holes		Mounting plate with M8 threaded holes		Total length L1 [mm], see dimensions
	Designation	Article number	Designation	Article number	
2	Mountingplate 2L	0062723	Mountingplate 2G	0062861	231
3	Mountingplate 3L	0062724	Mountingplate 3G	0062862	291
4	Mountingplate 4L	0062907	Mountingplate 4G	0063552	351
5	Mountingplate 5L	0062726	Mountingplate 5G	0063127	411
6	Mountingplate 6L	0062908	Mountingplate 6G	0063767	471
7	Mountingplate 7L	0062909	Mountingplate 7G	0063553	531
8	Mountingplate 8L	0062910	Mountingplate 8G	0066352	591
9	Mountingplate 9L	0062911	Mountingplate 9G	0064610	651
10	Mountingplate 10L	0062912	Mountingplate 10G	0064611	711
11	Mountingplate 11L	0064495	Mountingplate 11G	-	771
12	Mountingplate 12L	0065882	Mountingplate 12G	-	831

## Designation key

Mountingplate \_ \_

└─ G: Mounting plate with threaded holes  
└─ L: Mounting plate with elongated holes  
└─ 2 ... 12: Number of assembled modules (Rastereinheit)

Mounting sections	Module
1	key-, actuator-, or switch-module (e. g. 01-, 10-, B-, K-, or SX, RX-module)
3	Solenoid lock module (e. g. ZRX-, ZRH-, ZRN-, ZAX-, YRX-, YAX-module)
4	Option module

As shown in above table a ZRX takes the space of 3 mounting section. This has to be taken into account when selecting the mounting plate.

## Front Plate Selection Aid

The selection table below helps your search for the correct flush-mount plate.

### Selection example:

1. Define which STS unit has to be mounted in the front plate.
2. Define which base module is used in the unit:
  - Base module with switch module (e. g. SX- or RX-module)
  - Base module with solenoid lock module (e. g. ZRX-, ZRH-, ZRN-, ZAX-, YRX-, YAX-module)
3. Define the number of installed mechanical modules that are mounted above the base module..
4. in the selection tables you find in the corresponding column the article number of the fitting frontplate.

## Notes

**When defining the right front plate please take in account the futur system extensions.**

**The delivery includes the: The front plate and the installation of an STS unit including mounting material. The base modules (key-, or solenoid locks) are mounted face to the inside. Only the modules above the base unit are mounted with face to the front through the frontplate.**

**Not included in the delivery are the actual STS units and screws to fix the frontplate on the cabinet or panel.**

## Selection Example 1

1. STS-unit: STS-SX02M
2. Define which base module is used in the unit:  
Switch module SX = electrical
3. Number of above mounted modules:  
2 x key module 01 = 2 modules
4. Next to the number of modules mounted mechanical modules you find under base module with switch module the frontplate S2 with article number 0064908

Front Plate Selection Table

Number of installed modules (above basis modul; mounted face to the front)	Basis module with switch module (e. g. SX- or RX-module; mounted face to the inside)		Total length L2 [mm], see dimensions	Basis module with locking module (e. g. ZRX-, ZRH-, ZRN-, ZAX-, YRX-, YAX-module; mounted face to the inside)		Total length L3 [mm], see dimensions
	Designation	Article number		Designation	Article number	
1	Frontplatte S1	0064907	229,5	Frontplatte Z1	0064485	350,5
2	Frontplatte S2	0064908	290	Frontplatte Z2	0064486	411
3	Frontplatte S3	0064910	350,5	Frontplatte Z3	0064487	471,5
4	Frontplatte S4	0064911	411	Frontplatte Z4	0064488	532

### Designation key

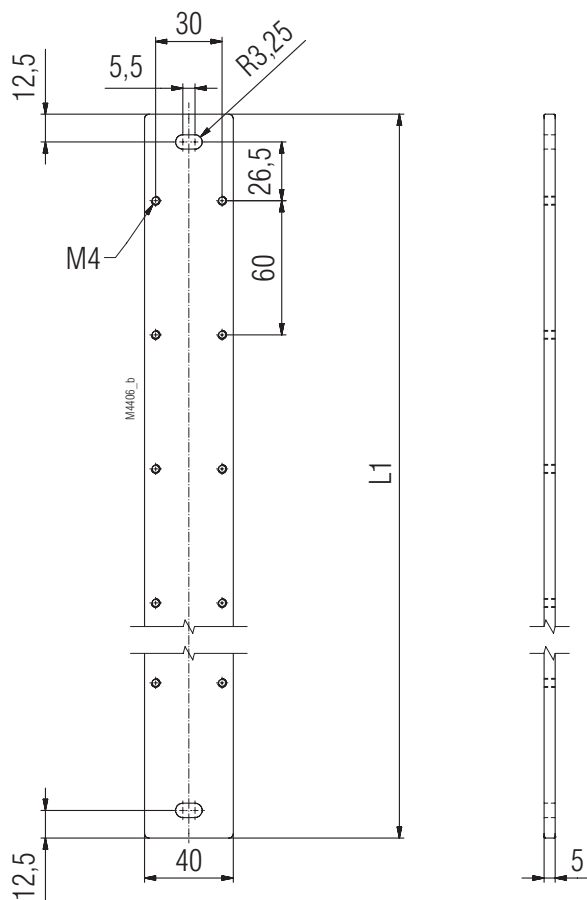
Front plate \_ \_

- 1 ... 4: Number of assembled mechanical modules;  
mounted face to the front
- S: Basis module with switch module;  
mounted face to the inside
- Z: Basis module with locking module;  
mounted face to the inside

## Technical Data

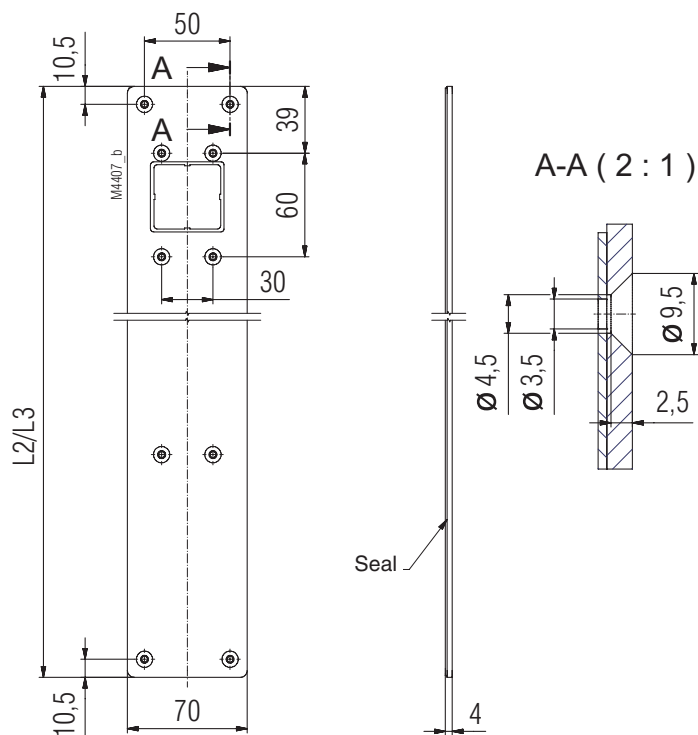
Material: Stainless steel V4A / AISI 316L  
 User area: Mounting plate / front plate to connect and fasten complete functional units of the SAFEMASTER STS modules

### Dimensional Drawing Mounting Plate with Elongated Holes [mm]



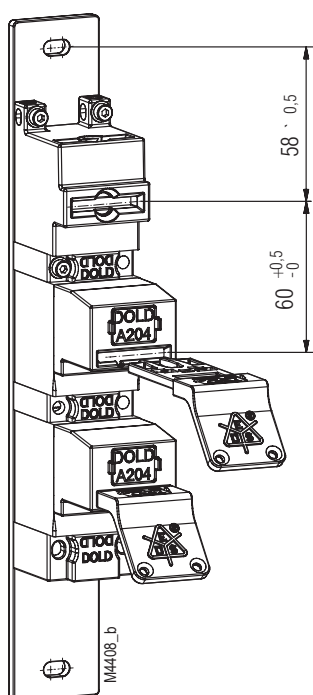
M8 threaded holes are located centred on the mounting plate at the same level as the elongated holes.

### Dimensional Drawing Front Plate [mm]



Tolerance: + 2 % x nominal dimension

### Mounting Example M11A, Modul Alignment VVV



### Cut-out for units with Front Plate

