SAFEMASTER STS/K
Safety Switch- And Key Interlock System
Basic Unit M10BM/K

Translation of the german original

0273942

Presentation in the deactivated condition:
Key inserted; Actuator removed

STS/K-System Benefits
- EU-Test certificate according to the directive 2006/42/EG, annex IX
- For safety applications up to PLe/Category 4 according to EN ISO 13849-1
- Modular and expandable system
- Rugged composite version of stainless steel and plastic 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
- Coding level low, medium, high according to DIN EN ISO 14119:2014-03

Features
- The unit is particularly suitable for applications with:
- Full body access (lock-in danger)
- Optional key removal
- Several secured entries
- Rugged ambient conditions
- This units are also available in stainless steel

Approvals and Markings

Function

Mechanical solenoid locking for separating guards with forced key entry.

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!

The STS/K 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/K the actuator can be removed from actuator module B/K and the access can be opened.

The key is blocked after removing the actuator. Only after the access is locked and the actuator was returned to its starting position can the first key be removed again and the solenoid locking is activated.

M10BM/K is used in the system in connection with additional STS/K units and SAFEMASTER products. The key to be entered may originate from these units (e.g. release through upstream solenoid locking ZRH01BM/K in connection with a speed monitor UH 5947 or standstill monitor LH 5946).

Technical Data

Enclosure:	PA + GF
Internal parts and inserting slots:	Stainless steel V4A / AISI 316 / AISI 630
Temperature range:	- 25°C to + 60°C
Storage temperature:	- 25°C to + 60°C
Mechanical principle:	Rotating axis with redundant actuation
$B10_d$:	2 x 10^6 switching cycles
min. operating speed:	100 mm/s
max. operating speed:	250 mm/s
max. switching frequency:	360/h
Locking force:	F_{zh} 2000 N
Shearing force:	depending on actuator
Test principles:	EN ISO 13849-1:2008 DIN EN ISO 14119:2014-03 EN 60947-5-1:2005 GS-ET-15:02.2011 GS-ET-19:02-2011 GS-ET-31:02-2010
Intended use:	up to max. cat. 4, PL e according to EN ISO 13849-1
Mounting:	according to DIN EN 50041
Additional requirement for cat. 4 structure (as single unit):	Add 2nd actuator module, Type M10BBM/K
Diagnostic coverage (DC), (mechanical):	
Logic and output	
M10BM/K:	90 %
M10BBM/K:	99 %
MK01M/K:	90 %
MKK01M/K:	99 %
Protection against faults of common cause:	see table in STS design guide
Repair and replacement:	only by manufacturer
Test intervals:	
for PL a to d:	min. once a year
for PL e:	min. once at month

Technical Data

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.

Ordering Example

STS- M 10 B M /K

- /K — Plastic
- M — End module M
- B — Actuator module B/K
- 10 — Key module 10/K
- M — End module M/K

Variants and Combination Options

Because of their modular design the basic units of the SAFEMASTER STS/K 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

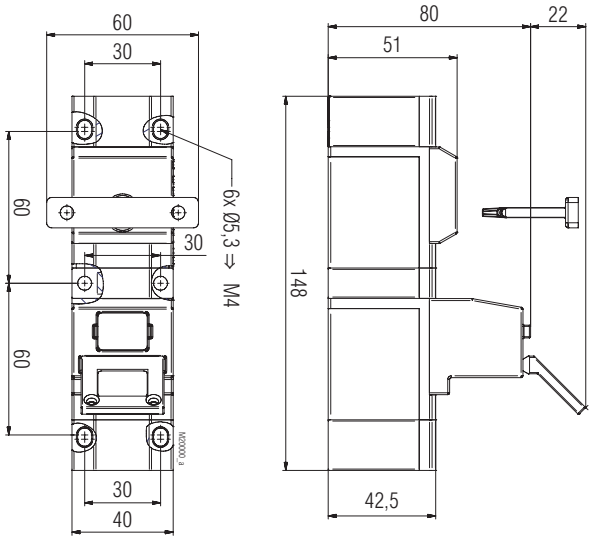
Functions	Safety switches design type 2	Safety switches design type 2 with solenoid lock	Mechanical units design type 2	Mechanical units with electrical monitoring	Mechanical units with electrical release
Units with standard function	SXBM/K	ZRHBM/K	M10BM/K	RXK01M/K RX10BM/K	YRXKM/K YRXK01M/K
Units with mechanical lock and forced key extraction	SX01BM/K	ZRH01BM/K	M11BM/K	RXK11M/K RX11BM/K	YRX10BM/K YRX11BM/K
Units with optional key extraction	SXB01M/K	ZRHB01M/K	M10B01M/K	RX10B01M/K RX10K01M/K	YRX10B01M/K
Units without actuator	SX01M/K	ZRH01M/K	M12M/K	RX11M/K	YRX11M/K
For additional information refer to the data sheets of the individual modules and other basic units.					

Data sheets

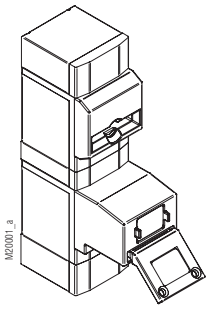
End module M/K
Key module 01/K /10/K
Actuator module B/K

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

Dimensional Drawing [mm]



M10BM/K
Clearance tolerances ± 2%



M10BM/K