



SAFEMASTER STS

The key to
more safety

Secure safety for animal enclosures
according to level III

DOLD 
Our experience. Your safety.

Animal enclosures

– Security according to safety level III

Animal enclosures that contain potentially dangerous wild animals, require a more stringent level of safety equipment in order to securely protect the health and safety of staff that have to work inside these enclosures.

Animal enclosures which are typically required to be secured to safety level 111 are currently secured using basic non safety equipment such as conventional padlocks. Unfortunately this type of securement does not always provide reliable safe protection and deadly accidents can sometimes occur, causing stress to other staff and attracting adverse public attention in the media.

In collaboration with trade associations, DOLD has developed a specialised solution for animal enclosures based on the SAFEMASTER STS safety switch and trapped key transfer system. The STS system fulfils the high safety requirements of this application and is also extremely resistant to the weather and is able to stand up to external mechanical influences such as vandalism. The robust stainless steel SAFEMASTER STS system provides your employees with the optimal protection.

Challenge

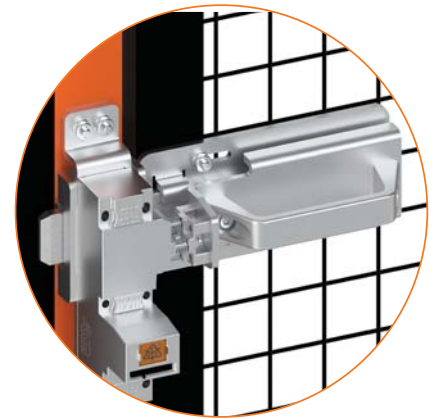
It should only be possible for keeper's to enter enclosures when all gates are closed and locked. In addition preventative measures must be taken to ensure no one can be locked into an enclosure and all gates are secured from being opened by animals, unauthorized parties or accidental circumstances.

Solution

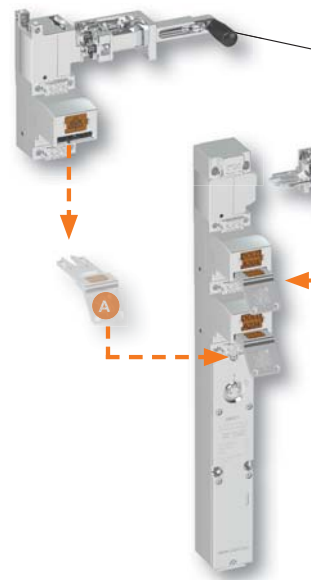
SAFEMASTER STS requires keepers to follow a similar process to what is currently required and in place to enter an enclosure. The difference is that with STS, there is no way to deviate from the correct process. This is ensured by a forced key transfer in combination with electromechanical guard locking. The STS system does not create any additional operational steps, but it does prevent keepers from forgetting any part of the safety process.

Advantages

- ▶ Reduced wiring
- ▶ System can be retrofitted as required
- ▶ Option to connect an animal detection system



Integrated locking bolt



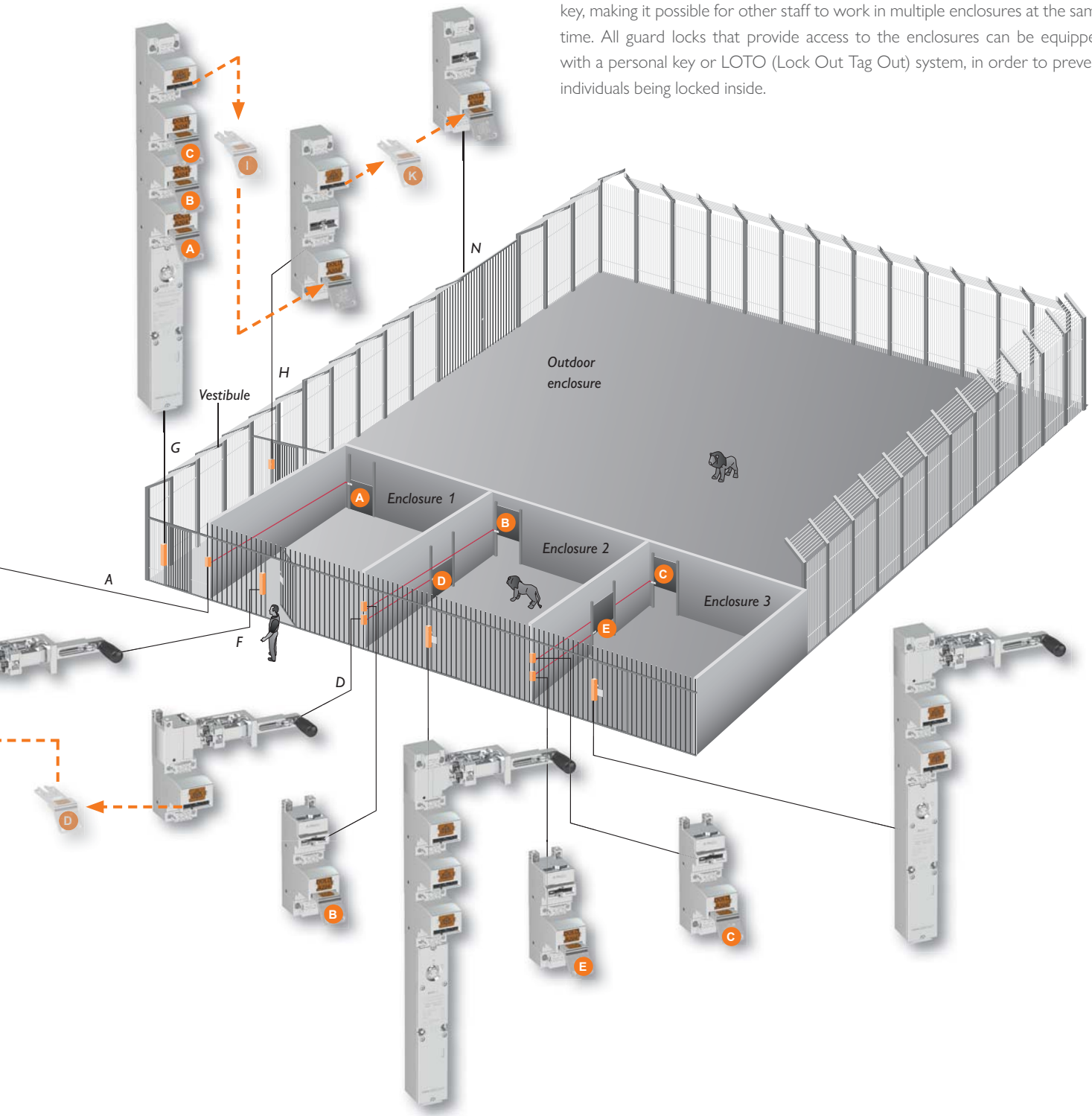
Configurable safety system SAFEMASTER PRO



Magnetic switch, coded

Options

The mechanical guard locks on gates D and E can be equipped with a second key, making it possible for other staff to work in multiple enclosures at the same time. All guard locks that provide access to the enclosures can be equipped with a personal key or LOTO (Lock Out Tag Out) system, in order to prevent individuals being locked inside.



Example 1

Keys A and D are required to enter enclosure 1. However, both keys can only be taken from the mechanical guard locks if the shutter gates to the main enclosure and enclosure 2 are closed and the mechanically linked actuators on the shutter doors are then inserted into the associated door locks. Once the keys have been removed it is not possible to open these gates. To open enclosure door F, keys A and D must be inserted into the electrical guard lock. To fulfill additional safety requirements, guard locks are only unlocked after a release signal is issued. This could be issued by a second person, for instance, if that person is acting as a monitor. The signal could also be issued by a configurable safety system such as SAFEMASTER PRO in combination with coded magnetic switches or with an animal detection system.

Example 2

In order to enter the outdoor enclosure, all the animals must be located in enclosures 1, 2 and 3. Shutter Gates A, B and C must be closed, and the associated keys must be inserted into the electrical guard lock on vestibule G, releasing Key I. Access door H can then be opened with key I. Key K can be used as a personal protection key to safeguard against being locked inside the outdoor enclosure, or to open the vehicle access door N.



The SAFEMASTER STS modular safety switch and key transfer system serves to monitor the movable safety guards found on machines and installations. It combines the advantages of safety switches, guard locks, key transfer and command

functions in a single system. SAFEMASTER STS is also suitable for the wireless safeguarding of applications in harsh and extreme environmental conditions.



SAFEMASTER STS – Modular safety switch and key transfer system

SAFEMASTER STS is tested and approved according to statutory requirements, and as an individual system is suitable for use in safety applications up to Cat. 4 / PL e in accordance with EN ISO 13849-1.

Operating and reporting functions can be integrated into one high demand single system.



E. Dold & Söhne GmbH & Co. KG
Bregstraße 18 • D-78120 Furtwangen
T +49 7723 654-0 • F +49 7723 654-356
dold-relays@dold.com • www.dold.com