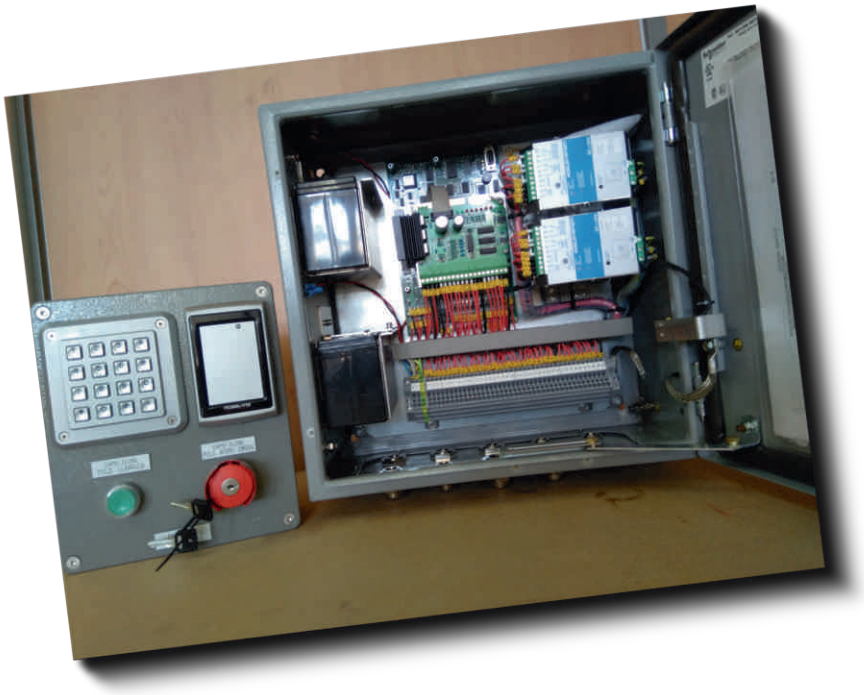
@integra Group

@s4®

@integra sensitive spaces security system

INNOVATIVE SME
Valid until Dec 31st 2018



SENSITIVE SPACES SECURING SYSTEM

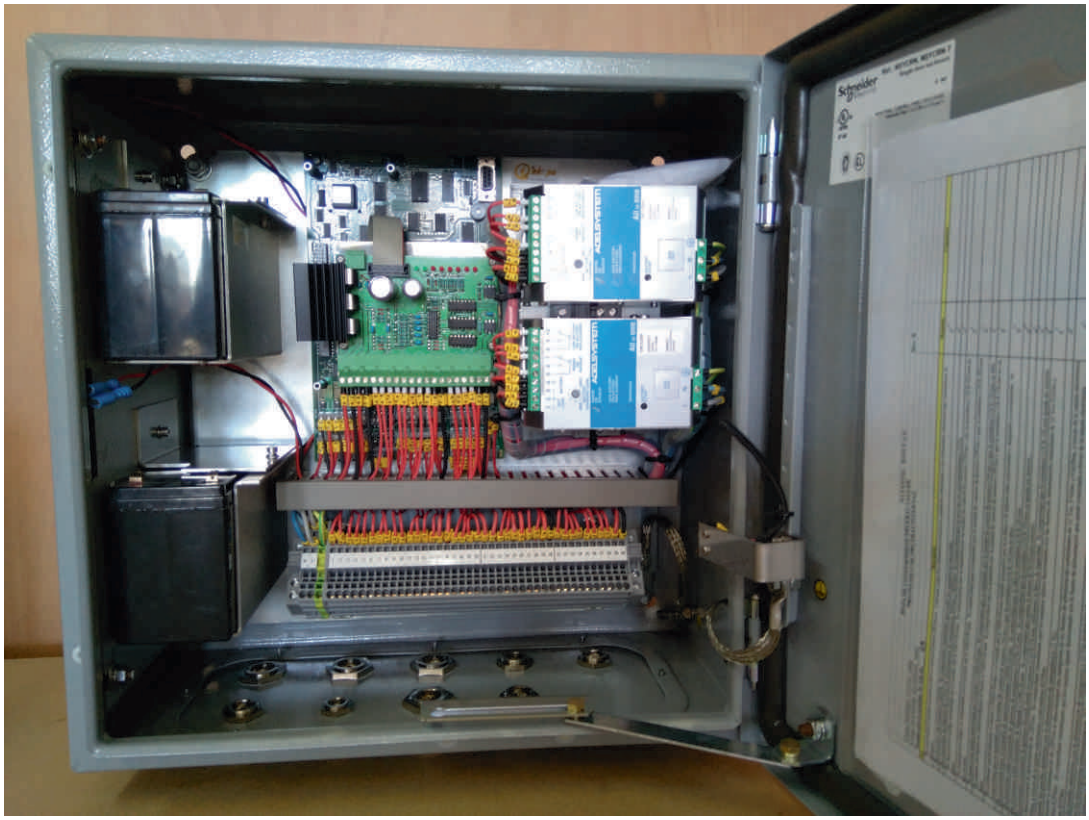
Integraciones Tecnicas de Seguridad, S.A.
Integra Telecomunicacion, Seguridad y Control, S.A.
Pol.Ind.Espiritu Santo - C/Nobel, 15
15650 - Cambre - A Coruna - Spain
integra@integraciones.com www.integraciones.com
Tel. +34 981 639608 Fax + 34 981 637981

INTRODUCTION TO @s4®

Sensitive Spaces Securing System is a rugged, reliable, fault-tolerant access control system for modern warships, fully integratable within the general management and control structures of the ship.

Modern warships are designed for an ever wider range of missions, from the purely military ones to the purely humanitarian, via many intermediate ones . The naval ship may therefore play host to a growing variety of people on its missions, including medical staff, engineers, firefighters, rescue-dogs handlers, etc. not to mention refugees and evacuees. Warships must not, however, lose their identity.

The strict quality control and certification requirements of naval use mean it is neither easy nor cheap to resort to civilian security products. Navies need specialist systems, designed for security, reliability, and survivability in warships, with qualified, marine-grade products. @s4® systems have already been installed, and are being installed, in some of the most capable modern warships of various Navies.



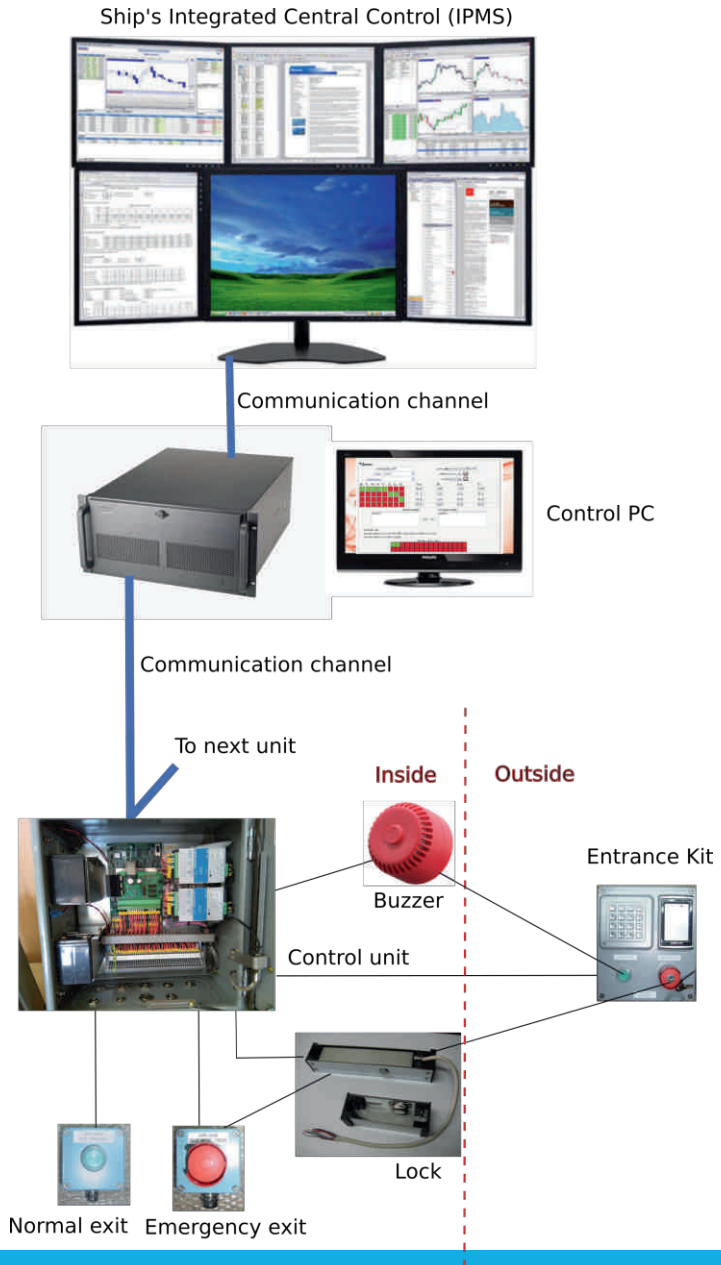
With the change in persons onboard, it is even more important to guarantee that the spaces strictly reserved for military purposes are safe from unauthorised access. Moreover, crews are not as numerous as they used to be, thus converting manpower into a scarce resource, and making it unrealistic to assign naval personnel to guard these areas so that they remain free from intruders. This considerably increases the value of automated systems which require a minimum of oversight and maintenance. Integration with the ship's Central Control System is important under these circumstances as it leverages its monitoring functions to amplify personnel capability.

@integra has conceived @s4® as a system specifically designed for application in modern warships, with their need for operation with a minimum of supervision and maintenance whilst keeping the ship's management system informed of any event requiring intervention, with ease of use and flexibility also a high priority in the design. A full set of documentation to NATO standards is available in various languages.

Sensitive Spaces Securing System for Warships

@s4® has the following features:

- A self-contained system. It only requires mains power and a communication channel with the ship's Central Control System.
- An application specific system. It has been specifically designed for naval ships, and incorporates unique features suitable for this application.
- A fully documented system. A comprenhensive set of documentation exists for this system in various languages, covering every aspect normally required by naval standards.
- An autonomous system. The system does not require a connection to a Central Control System, nor from the Control PC to the individual units to continue working correctly.
- An easy to use but highly configurable system. The software controlling the system is graphical and easy to use, but powerful, able to allow or deny access based on any combination of person, time, location and system status.
- A thorough system. The system logs all events to its database, including both authorised and unauthorised entrance and exit.



@s4®

Sensitive Spaces Securing System for Warships

MAIN FEATURES OF @s4®

- **The widest range of identification means available on the market:**
  - Contact card readers (magnetic, Wiegand, inductive,...)
  - Contactless card readers (125 kHz, 13.52MHz,...)
  - Encrypted smart card readers, contact or contactless.
  - Hand geometry readers.
  - Fingerprints readers.
  - Face recognition terminals.
  - Keypads (alone or combined with other identification means).

- **Rugged, marine-grade, high security electromagnetic lock designed for a wide class of doors:**
  - Standard metal doors.
  - Sectioning gates (Which displace upon locking).
  - Hatches.

- **Marine-grade elements.**
  - IP65 and IP66 casing for the control units.
  - IP66 casing for the entrance kits, with optional stainless steel IP67 unit for exposed areas.

- **Shock Resistance.**
  - Versions with shock proof according to MIL-STD-S-901D

- **Reliable power supply.**
  - Two independent power supplies fully integrated in redundant mode.
  - Twin autonomous UPS for the logic circuitry and the lock control.

- **Highly customisable access control.**
  - Access to a sensible area can be granted or refused based on a wide range of criteria, including time and date, location, person and system status. Anti-passback, airlock and threat recognition systems available.
  - A number of software modules are available for remote access using wireless or network connections, video surveillance, advanced event messaging to remote locations, visitor administration, full graphical status display of door position, lock position etc., concierge remote control, etc.

- **Full logging.**
  - The system separately monitors the status of all the controls, the position of the door, and the position of the door lock's bolt.
  - Any changes in the above are recorded in the system database and are available for later display and analysis.

- **Reports on the system's status and history can optionally be generated on request or automatically.**

- **Triple DES encrypted communication.**

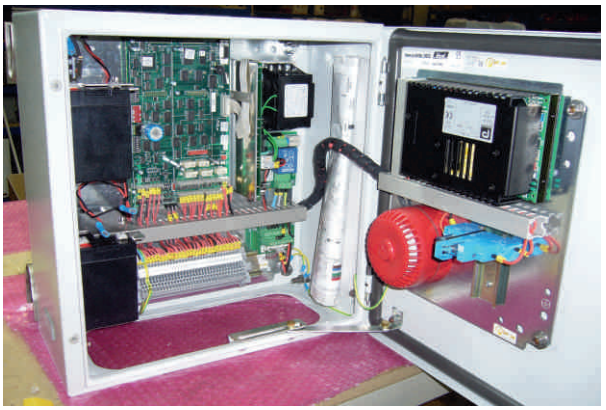
Sensitive Spaces Securing System for Warships

PRODUCT RANGE OF SYSTEM @s4®

@s4®- c

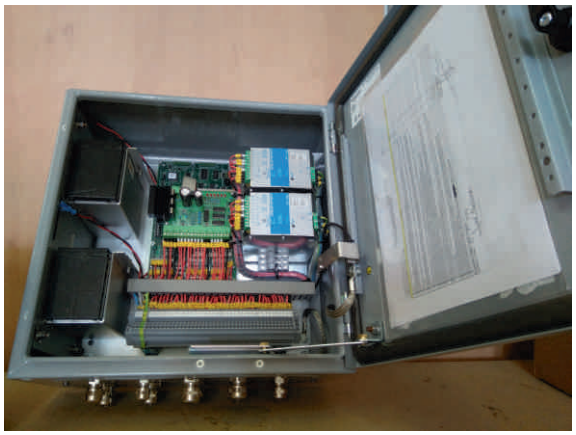
THE COMPACT UNIT

Specially designed for ships with severe space restrictions, where access to the units and their maintenance may be complicated by the reduced space requirements. The antishock mounting is an option with this model and can be removed when the space does not allow it. The compact unit has an IP66 rated casing.



@s4®-r

THE TRULY REDUNDANT POWER SUPPLY UNIT

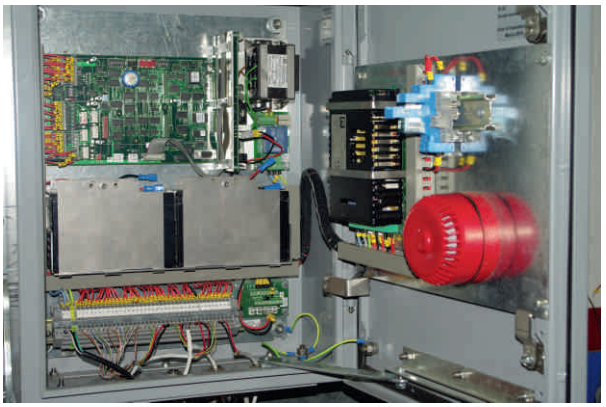


Like the unit @s4®-c, @s4®-r has been designed for ships with severe space restrictions, and/or with fewer personnel devoted to maintenance tasks. This model has unique features that allow for remote monitoring of the system's status and it only requires very occasional physical access for maintenance. It is endowed with a control card that allows for twin power supply units to act as a single one; in case of failure of any one of them, the unit continues to work seamlessly with the other. Also like @s4®-c the mounting with antishock system is an option and can be removed in case space does not allow these to be fitted. The truly redundant power supply unit has an IP66 rated casing.

@s4®-s

THE SHOCK-PROOF UNIT

Designed for ships with harsh shock restrictions like frigates or destroyers, the model @s4®-s has been designed and tested to comply with the MIL-STD-S-901-D shock test. The system continues to operate without interruption, even during the greatest especified shock.



@s4®

Sensitive Spaces Securing System for Warships

THE ENTRANCE KIT

The only element which is situated outside of the sensitive spaces is the entrance kit. It contains the card readers and/or other devices for identification.

@s4® accepts a very wide variety of identification devices, including keypads, card readers, contactless readers, hand free readers, fingerprint readers, face recognition and many other biometric devices. Integration of the customer's own choice of identification device is also possible.

It consists of the following elements:

- An identification device, a call button to inform personnel within the secured space that someone requires access. The unit corresponding to @s4®-s has been designed and tested to comply with MIL-S-901-D.
- The entrance kit is fitted with a tamper detection system to notify the ship's central control system if anyone attempts to gain access by manipulating the system.

Different entrance kits for @s4®

FAIL SAFE OPERATION

@s4® system is fail safe in that a complete failure of the system or its power supply (and UPS) will result in the lock opening as required by Classification Entities for this type of device. On top of this, the system has two emergency pushbuttons for the unlikely case where the system locks up in a powered but non-operational state.

The emergency pushbutton cuts power to the electromechanical lock leaving it unlocked. At the same time, an alarm message is sent to the central control computer indicating that the emergency pushbutton has been activated. This alarm message is also forwarded to the ship's Central Control System (IPMS).

The emergency entry pushbutton, located in the entrance kit outside the sensitive space, allows the entrance in case of emergency, when the internal switch cannot be used. A special security key is necessary to operate this, normally accesible only to Ship's commander. When this button is actuated an alarm message is sent to the Central Control (IPMS).

WHY IS @s4® THE BEST SECURITY SYSTEM TO PROTECT SENSITIVE SPACES WITHIN THE SHIP?

1.- The system has been designed as an evolution of terrestrial access control systems.

2.- It has evolved since 2005, adding new features in a developing process up until today.

3.- It is a patented system (Patent pending P201100645).

4.- @s4® uses technology from very important companies in the high technology field.

5.- @integra has worked on the development of @s4® with different shipyard's engineering departments.

6.- It has redundant power supplies.

7.- Batteries back up for the power supplies.

8.- The batteries provide more than 8 hours of operation with no input power and can be hot-swapped.

9.- A specific circuit has been designed to distribute power, charge batteries, diagnose failures and send alarm signals to IPMS.

10.- The system is fail-proof regarding power, whatever the power failure it continues working. If the power absence were too long, the batteries are protected against deep discharge.

11.- @s4® warns the IPMS about possible power failures per door (absence of mains power, one of the two redundant power supplies is faulty, batteries are very low, battery is turning defective,...

12.- Control of the locking of each door on an individual basis.

13.- Optional integration of @s4® with CCTV and video surveillance.

14.- Available with MIL-STD-S-901-D shock proof.

15.- The system can resist the requirements of the onboard environment, humidity, temperature, salinity...

16.- @s4® incorporates a system that guarantees the opening of any door.

17.- Electronic protection of the lock to avoid lateral impact when the bolt is extended.

18.- An autonomous system that does not require connection to the ship's Central Control system (IPMS), although it is convenient to have it.

19.- The system records all the events whether they are authorized or unauthorized.

@s4®

Sensitive Spaces Securing System for Warships

THE LOCK

A variety of marine-grade are available for the different types of entrances that can be found in a warship: structural doors, sectioning doors, sluice gates, light doors, hatches...

The lock is clearly a potential failure point for the whole system, both because it is the only moving part and because it underdogs all the impacts, scratches, misuse and abuse caused by the movement of the door. *@integra* has a workshop to adapt the design of the system to our client's requirements.

These capabilities are always at the request of our clients, because there are no two identical vessels, and usually is not suitable to use exactly the same solution.

REFERENCES

SPANISH NAVY

- LHD Juan Carlos I.
- AOR A-15 Cantabria.
- Fragata F-105 - Cristóbal Colón
- BAM Meteoro P-41.
- BAM Rayo P-42.
- BAM Relámpago P-43.
- BAM Tornado P-44.
- BAM Audaz P-45.
- BAM Furor P-46.

AUSTRALIAN NAVY

- AWD Hobart
- AWD Brisbane
- AWD Sidney
- ALHD Canberra
- ALHD Adelaide

VENEZUELAN NAVY

- BVL Guaicamacuto GC-21
- BVL Yavire GC-22
- BVL Naiguatá GC-23
- BVL Tamanaco GC-24
- POV Guaiquerí PC-21
- POV Warao PC-22
- POV Yekuana PC-23
- POV Kariña PC-24

Management System
ISO 9001:2008
ISO 14001:2004
www.tuv.com
ID 9105075098

INNOVATIVE SME
Valid until Dec 31st 2018

Ministry of Defence - DGAM Registered Company no. 5537-Sector 5-Level VI
Ministry of Interior - Police Registered Company no. 3.085
Ministry of Industry - Fire Protection Registered Company no. RIGA 15021141

Ministry of Industry - Telecommunication Registered Company no. 8.551, Categories A, B, C, D and E
TÜV Rheinland Certification:
ISO-9001:2008 no. 9105075098-Q
ISO-14001:2004 no. 9105075098-MA
NATO Commercial and Governmental Entity (NCAGE) nº 9663B