

Welcome to the third edition of Smartscan's newsletter, inside you will find information on our current machinery safety product solutions and exciting news on some of our latest NEW product developments. The last 12 months has seen further overseas expansion for Smartscan allowing us to offer greater support to our customers. Also included is our regular slot on current developments in machine safety standards from our resident safety expert.

www.smartscan.com

MAGSAFE - A SAFETY GATE LOCK WITH NO MOVING PARTS !

Magsafe is Smartscan's latest innovation in machine safety. An electro-magnetic interlocking system for controlling access through the gates and doors that are set within the perimeter safety fencing or screens surrounding potentially hazardous machinery.

The key design element in Magsafe was to lock the door using magnetic force rather than by mechanical means and remove the problems that plague existing gate locks due to liquid and dirt exposure in combination with the rigors of daily operation. This causes fatigue and leads to mechanical failure of the product.

The system comprises of an electro-magnet fitted to each gate together with a control unit which **continuously monitors the on and off state of the magnets**. This ensures the system detects when the gate is open and when it is closed. Only when the gate is closed and the magnetic locking force applied will the control system allow machine operation.

Magsafe Control Unit

Magsafe features include:

Category 4 : EN 954-1



- No moving parts
- Easy alignment between magnet and target
- Totally sealed to IP68
- Adjustable magnetic holding and locking forces
- Selectable run down time delay function
- Operation of up to 16 magnetic gate locks from a single control unit

A typical system comprises of electromagnetic gate locks, control unit, local access control unit and connection cables.

For more information contact Smartscan direct on 01536 – 401313 and ask for Magsafe Sales.

SMARTSCAN 1000 PLUS

We are pleased to announce the full range of **1000 Plus** Series safety light curtains will be available for purchase from March 2005.

The **1000 Plus** offers a number of improvements

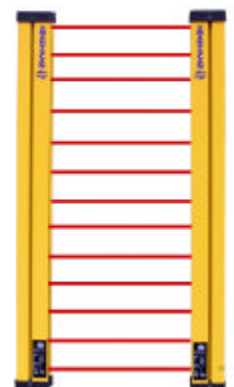
- Bright chromate 'yellow' coating
- Additional model, with a detection height of 180 mm
- Impact resistant moulded end caps
- Improved visual diagnostics
- Enhanced EMC performance

The 1000 Series range now offer detection heights between 90 mm and 1240 mm. The end caps are made from high im-

act nylon and allow for the additional mounting bracket option.

The new system also includes more diagnostic indication aiding light curtain monitoring and set-up.

We have now installed the **1000 Plus** in a number of environmentally unfriendly factory sites to ensure reliability and stability of the system in real industrial machine applications.

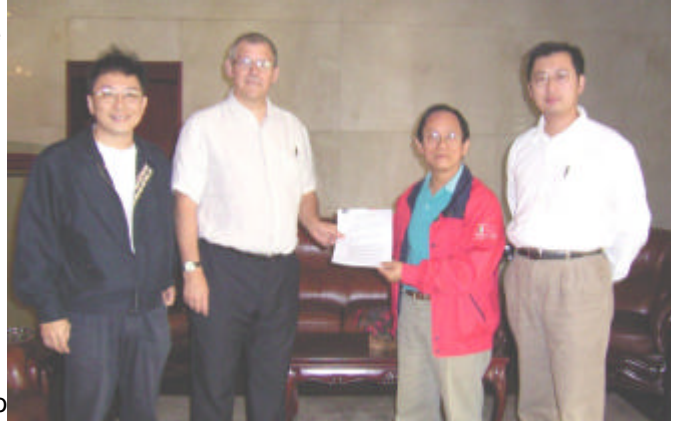


SMARTSCAN JUMPS ON BOARD THE ORIENT EXPRESS

To take advantage of the expected future growth for Smartsan products in the Chinese market place the company has appointed Innova International Trading Company as their Distributor for the whole of mainland China. Innova are well placed to provide great coverage of China with 20 offices strategically located throughout the Republic.



The trading agreement between the two companies was signed in Shanghai in October 2004. The picture shows left to right, Gerry Huang head of Smartsan Taiwan, Richard Lea, MD of Smartsan UK, James Chen CEO Innova and Tony Chen marketing manager for Innova.



Although industrial safety may not yet be enforced in China as in the UK, Richard Lea and James Chen both see the partnership as an opportunity to develop what will undoubtedly become a huge market for industrial safety products in the future.

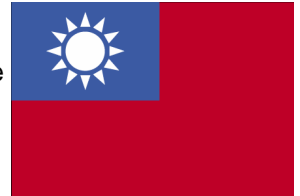
Plant and equipment imported by Western companies for the manufacture of cars, food, medical and other products all incorporate the latest technology. Safety is an issue in these plants and in time is expected to expand into the rest of the country's manufacturing culture. The growth requirements China has set itself can only be described as phenomenal. Consider there are 1600 million people in China. About 100 million are living with western style standards of living. They would like to modernise a further 1000 million persons in 20 years.

The current hot spot is the Yangtze delta with Shanghai its epicentre. Whole cities of 1 million persons are being constructed near the new motorways that have opened up the region.

EASTERN EXPANSION

It is now over five years since Smartsan established its presence in South East Asia. The office based in Taiwan has built a strong presence in the area during that time, which has allowed the company to undertake manufacture of products and components through various sub-contractors. In addition Smartsan have established their own sales team which has been handling all enquiries throughout the Far East.

A significant milestone in the Company's development of the Asian market was reached in November 2004 when Smartsan was granted permission to extend its terms of operation in Taiwan to include the ability to manufacture product in its own right. The company expects that our team of engineers and production staff will increase during 2005 to meet extra demand for our products in Europe, USA, Taiwan and China.

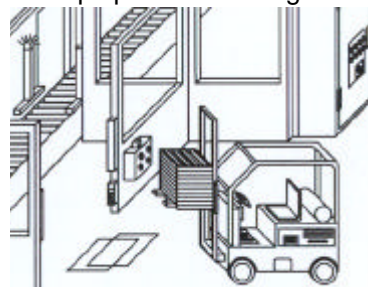


USE YOUR LOOPS

Smartsan now offer a safety related inductive loop control system for providing automatic muting of a safety light curtain at fork lift truck load and unload areas.

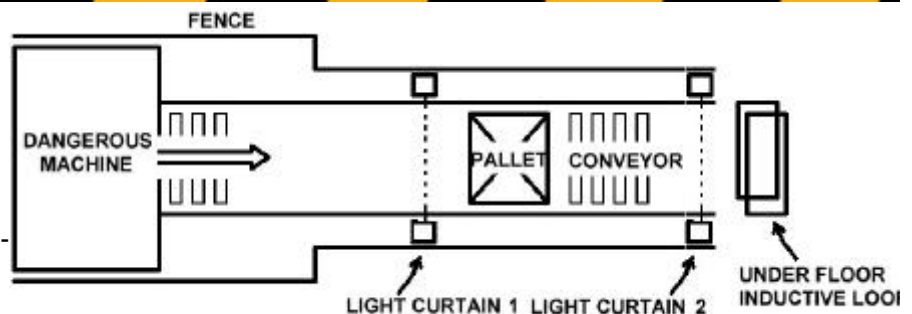
Fork-lift trucks are used in many end-of-line packaging applications for placing and removing palletised loads from conveyors or from pallets or stillages in robot palletising cells. The Smartsan inductive loop controller controls the muting function within the light curtain by detecting the metallic mass of the fork lift truck passing over the

in inductive loops installed under the floor, in front of the zone protected by the light curtain. When a fork lift truck is detected the loops provide dual signals to the controller which are monitored and processed to provide failsafe muting signals to inhibit the light curtain during periods when the fork lift truck is loading or unloading pallets from inside the potentially dangerous area.



One of the many advantages of the inductive loop system is a marked improvement in the ease of use for the fork lift operator,- the system is fully automatic removing the need for manual resetting of the system, with the obvious benefit to production and ergonomic efficiency.

For further information or to arrange a site visit, do not hesitate to contact your nearest Distributor or Smartsan directly on 01536 - 401313



JK DISTRIBUTOR - CONTROLS FOR INDUSTRY

Controls for Industry is an independent stock holding distributor of safety systems, controls, instrumentation and related services to industry. We are located in Central England, close to the M42 and served well by major A roads and the wider motorway network of the M1, M5, M6 and M6 Toll.

As a company **Controls for Industry** have been established for over 20 years with technical experienced staff both on-site and on the road, giving pre- and post-sale support. Basically we are a one-stop shop for all industrial control needs.

Working with Smartsan **Controls For Industry** can offer complete machine safety solutions from expert safety advice, sup-

ply, installation through to regular safety system maintenance. As part of our total service offering to our customers we run joint seminars and bespoke training on all areas of machinery safety.

We are based in the prestigious Regus Building on the Blythe Valley Business Park at J4 of M42; and this provides first class facilities for running our training courses and product launches.



MACHINE SAFETY STANDARDS - UPDATE

Safety Integrity Levels: What they are and where they come from and where they are going.

The phrase "safety integrity level" was generally introduced with the publication of EC 61508 (EN 61508). IEC 61508 is termed a basic safety standard that implies that all new IEC standards must use IEC 61508 as a reference to safety. IEC 61508 says it is for "Complex" systems. It is further complicated by a phrase stated often but little understood "functional safety".

EC 61508 is applied by splitting a system into blocks of safety functions. Each of these functions has a level of functional safety attached to it. We are back to what is functional safety again, now we must explain it. Each safety function reduces the risk **or it is not providing a safety function!** The reduction in risk is the amount of safety attached to the function i.e. FUNCTIONAL SAFETY. So a safety function reduces risk hence has a level of functional safety. What is the level of functional safety? This is of course the Safety Integrity Level (SIL) for the function. Simple when you know how.

EC 61508 is a far reaching standard that can be applied to all areas of the known safety universe from push buttons to nuclear power stations. Within it are a set of sector standards that are specific to particular areas of user. **EN 62061 Safety of Machinery – Functional safety of Electrical, Electronic and programmable control systems for machinery** is for the machinery sector. It allows the machine designer to take into account more modern technologies for safety applications without being worried about meeting the requirements of EN 954-1 which makes application of new technology difficult and cumbersome by using the level of failures for the presumption of safe.

One of the advantages of functional safety is the building of safety systems from functions. This gives a very simple and controlled method of putting safety systems together by use of predefined functions and interfaces.

Smartsan offers specialist safety consultancy for customers requiring further help in managing the increasing complexity and number of machine safety standards. For further information please contact Smartsan on 01536 - 401313 or contact your nearest Distributor, please see the contact list inside the newsletter.



A LIFE ON THE OCEAN WAVES

Smartsan go to sea with the Royal Navy.

In 2004 a number of 1000 Series safety light curtains were used on board Navy ships to satisfy a Government re-fit contract. After an initial test period the contractors were happy to proceed with a significant order.

The light curtains are being used to prevent personnel access to the load/unload areas of the heavy duty lifts during their ascent and decent. The lifts are used to transfer goods and materials between decks on many of the front-line fighting ships of the British fleet.



FLYING DUTCH MAN



DIS have been a Smartsan distributor since 1995 for the Netherlands. Starting with the 5000 series and now with the 8000 series DIS has build up a broad customer base with the Dutch OEM market of end of line packing machines and robot integrators.

With the 1000 series light curtains and safety relays we are expanding into other markets like panel builders and machine builders. Now the recent additions of the Integron programmable safety PLC and the Magsafe door lock we are targeting the food and beverage industries.

Apart from the Smartsan product range DIS manufacture their own Quadro-sensor products and control solutions for DC drives.

For more information please contact: Pim Wieske
Dewit Industrial Sensors b.v., Oostergracht 40, 3763 LZ Soest, Netherlands

Tel: +31(0)35 638181 Mail: PWieske@dis-sensors.nl



DISTRIBUTOR INFORMATION

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Emarque Ltd, Corby, Northants, NN17 5ZF
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Controls for Industry Ltd, Solihull, Blythe Valley
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FAX BACK REPLY

If you would like additional information or help regarding any of the products or topics raised in this newsletter please tick the relevant boxes and fax back on **01536 - 268954**

1000 PLUS SERIES

8000 SERIES

7000 SERIES

9000 SERIES

INTEGRON

MAGSAFE

MACHINERY SAFETY ADVICE

Name.....

Job Title.....

Company Name.....

Address.....

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.....Post Code.....

Telephone.....