

ISSUE 001 | MARCH 2017

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SAFETY

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INSIDE

The Art of PLC

We take a closer look at specifying the right HMI & PLC combination.



ATEX / IECEx

A Focus on ATEX

Managing position in ATEX Zone 1 & 21 (Oil&Gas) and M2 (Mining) applications



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The Art of PLC

Choosing the right PLC & HMI

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Guest editor



IT has been a busy start to 2017 at Emolice ! Following on from a strong 2016 we have been delighted to launch no less than 50 new products, partner with 2 new companies and the best of the year is yet to come....

Mo bile machines and their applications have featured strongly so far this year. We've been supporting applications on excavators, lifts, access platforms and backhoes to name a few. With the launch of the new AKS Dynamic Inclinometer, we're starting see even more interest from our customers wanting to measure tilt in tough applications.

As our ATEX portfolio grows we are starting to see more and more exciting applications from traditional Oil & Gas, General Industry and Manufacturing. We'll be adding more ATEX products as we head into the summer so watch this space for some exciting announcements !

We 've got some great insights in this issue - I hope you enjoy reading them as much as we have enjoyed pulling them together for you!

Emily Quinn

Emily heads up our customer service team !

In this issue... editors top picks from this edition

P04



SHOCK AND YAW

Dealing with the effects of shock, vibration and acceleration in tilt measurement

P14



DEATH OF THE MICROCONTROLLER

How a small Italian machine builder got the edge on their competitors

P06



"NOBODY GETS FIRED..."

We look at some of the key considerations for specifying a PLC

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BEING MODERN

Lift modernisation is big business, we compare information & control systems

P12



A FOCUS ON ATEX

Complying with ATEX, a review of some of the latest ATEX highlights.

P16



MISSION CRITICAL MOTION

A look at sensing rotary motion in mission critical applications



Shock & Yaw

NEW ARRIVALS:

The POSITAL AKS gyro compensated inclinometer

Tough TILT

Gyrocompensated inclinometers excel in environments subject to shock, vibration and acceleration, here's why !

AVAILABLE FROM
Emolice Distribution or visit
www.emolice.com

PRICE
• POA

OUR RATING



THE GOOD
Best in class compensated inclinometer. No longer any need for off sensor processing to compensate for vibration, shock and acceleration.

NOT SO GOOD
Still waiting on some choice interfaces, not long now though !

Emolice has introduced the new AKS dynamic inclinometer from POSITAL. This

TILTIX-inclination sensor measures the angle of an object dynamically whilst it is in motion. The new inclinometer combines an electro-mechanical accelerometer with gyroscopes and guarantees accurate measurements even when the sensors themselves are subject to strong acceleration, shock and vibration.

TILTIX inclination sensors are built based on MEMS accelerometers. These MEMS sensors monitor the effect of gravity on a small mass that hung is to an elastic substructure.

Unfortunately, acceleration or movement of the object to which the sensor is attached (for example if the inclinometer is attached to a vehicle) can have a disruptive effect on the accuracy of the inclinometer. By adding a set of electromechanical gyroscopes to the inclinometer, the unwanted effect of the acceleration can be negated.

Thanks to this approach, the new dynamic TILTIX inclinometer is ideal for use in applications that are subject to sudden movements, shocks or vibrations, for example test & measurement applications, construction machines, machines used for mining, cranes and agricultural vehicles.

The new AKS dynamic TILTIX inclinom-

PROS/CONS

- ▲ Good accuracy and resolution.
Robust package for tough applications
- ▲ Multiple interfaces on the short term roadmap..
- ▼ Ever so slightly more expensive than standard inclinometers.

eter has a measuring range of $\pm 180^\circ$ over two axis and covers the full range of motion. Currently the CANopen communications interface is supported. Analog, SAE J-1939 and Modbus outputs will follow soon.

With an accuracy of 0.3° and a resolution of 0.01° , the POSITAL AKS has more than enough capability for mobile machine applications

The full specification of the AKS inclinometers has been released as:

Resolution: 0.01°
 Accuracy: 0.3° (static)
 Accuracy: 0.5° (with dynamic movements)
 Cycle time: 5 ms
 Maximum measuring range: $\pm 180^\circ$
 Measuring: 1 or 2 axes
 Horizontal and vertical option
 Supply current: 10 to 30 V
 Operating temperature: -40 to 85°C
 Shock resistance: up to 100 g
 CANopen interfaces (Profile DS-410)
 (analog, SAE J-1939 and Modbus to follow).

Interpreting Common Specs

Sensor cycle time: This is the internal cycle time of the base sensor.

Interface cycle time: This is the cycle time the position value is transmitted via the communication interface. The interface cycle time can be easily adjusted by the customer at the interface level.

Absolute accuracy: The absolute accuracy is the worst case deviation between measured position and the actual position within the defined range.

Offset: When the inclinometer is positioned at the zero level, the output will show a small deviation. This error at the zero level is referred to as offset error.

Dynamic accuracy: This accuracy is determined the same way as the absolute accuracy, only that the device is exposed to external vibrations and accelerations.

Resolution: This is the smallest possible measurement step

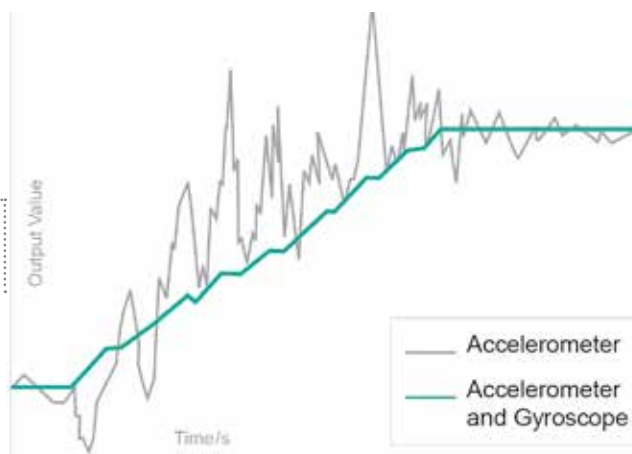
Hysteresis: The definition of a hysteresis is that the output value of a system is not only dependent from the actual input, but also from past inputs. For inclinometers this means that the measured tilt angle is also dependent on the past position. There will be a small difference whether the inclinometer is tilted from 0° to 10° or from 20° to 10° . This difference is described by the hysteresis.

Temperature gradient: This value describes the change of the measured tilt angle for a change in temperature.

Settling time: This is a value that describes the dynamic behaviour of a system. The settling time defines the time the inclinometer signal needs to reach and stay within 5% of the final position.

Comparison:

A standard inclinometer using accelerometer based MEMS technology is compared with the new AKS inclinometer



Top 4
right now

Talking to the AKS Inclinometers.



1 CANOpen Interface

Digital Interface | Available Now

CANopen is a high-level communication protocol and device profile specification that is based on the CAN (Controller Area Network) protocol. The protocol was developed for embedded networking applications, such as in-vehicle networks.

2 J1939 Interface

Digital Interface | Available Summer 17

Society of Automotive Engineers standard SAE J1939 is the vehicle bus recommended practice used for communication and diagnostics among vehicle components.

3 Analog Interfaces

Analog Interface | Available Autumn 17

Typical Analog outputs include 0-10V, 0.5-4.5V and 4-20mA. Ideal for simple interfaces.

4 Modbus Interface

Digital Interface | Available Winter 17

Modbus is a serial communications protocol. Simple and robust, it is now a commonly available means of connecting industrial electronic devices.

We take a look at the 4 key considerations when looking to invest in a new PLC

Highlighted



About Unitronics

Unitronics designs, manufactures, and markets quality PLCs for the global market. Easy to use, efficient, and affordable, their products have been automating processes, systems, and stand-alone applications since 1989.

Unitronics' field-proven PLCs automate hundreds of thousands of installations in diverse fields: petrochemical, automotive, food processing, plastic & textile, energy & environment, water & waste water management – anywhere automated processes are required.

Did You Know

Unitronics support their customers with some of the widest range of learning and online support in the industry?



Find out more at www.emolice.com

"Nobody Gets Fired.."

We all know the saying, but buying the right PLC is about more than choosing the household name..



Automation control projects, no matter how large or small, commonly start with the following specifications:

"The system shall fill all requirements, function with perfect efficiency, be perfectly interoperable with all existing devices, require zero maintenance, and cost nothing. In addition, the system must be completed by Wednesday!"

Speed is crucial for success in a field with demanding requirements and crushing competition.

As an engineering professional, you can certainly work with a variety of devices from a number of PLC manufacturers—however, most of us have a preferred brand, a platform that we return to time and time again.

This is because Familiar is Fast, but

Familiar is not necessarily best. You know the hardware range. You know the software. You know what to expect—and you have the sales rep on speed dial.

For these reasons, selecting the manufacturer that stands behind a brand of controllers is a major decision. It is every bit as important as your CPU and I/O requirements.

"You have the sales rep on speed dial, it's all too familiar yet familiar is not necessarily best."

PROS/CONS

- Chris the sales guy brings in great cakes. You know the product and the software.
- Your familiar solution is a compromise.

1. The Importance of Breadth

Breadth | Memory | CPU | Compliance | Integrated HMI | Onboard I/O



Every application is unique, for that reason a complete, full product range is required. PLCs, for example, must be able to supply sufficient memory to support I/O, log and manipulate historical data, as well as execute the control program. Where execution speed is critical, the CPU processing speed must be considered as well. Which standards apply to the application? Does the application need to comply with hazardous environment standards, CFR-21.11, or the spray-and-wipe standards of the food and beverage industry? User familiar with mobile phone technology desire HMI color touch-panels to provide the interface between operator and system. In cases where space is at a premium, PLC + HMI all-in-one controllers have a distinct advantage. Specifying onboard or snap-on I/O modules can save space and greatly reduce wiring.

2. Data Communication & More

Flexibility | Protocols | Software Utilities | Web Server



Flexibility is key—the more protocols your selected brand of PLCs supports, the better you can support interoperability with existing applications and third-party devices. Important industrial datacom protocols include MODBUS, CANopen and other flavors of CANbus such as CAN Layer2 and EtherNet/IP. Some brands also support protocols such as SNMP and FTP. Check to see if your PLC manufacturer provides software utilities that enable you to implement proprietary third-party datacom protocols, whether serial RS232/485 or TCP/IP. You can also benefit your customers by increasing the visibility of operating data and diagnostic information. Web Server—the ability to access a PLC via web browser—and VNC support are excellent methods of remotely accessing a PLC, while SMS messaging and email are very handy for notification via mobile. You may also want to look for GPRS/GSM modem support.

3. Look for Intelligent Software

Saving Time | Ease of Use | Re-usability



Saving time is the primary benefit of intelligently designed software. There are two particularly important factors to consider:

- Ease of use – ergonomic design means that you do not need to search for elements when programming. In addition, logical, consistent construction saves time, since the programmer intuitively knows what to do even when programming a particular task for the first time.
- Re-usability - Insist on it. Whether you are programming Ladder or C functions, designing HMI screens and Web pages, or creating custom controls, the ability to re-use your work across projects will save big chunks of time.

4. Don't forget the freebies

High Level of customer care | 24/7 personal support | All free of charge



Look for PLC manufacturers that offer a high level of customer care. Make certain that support, whether technical or sales, is easily available and prompt.

Personal support—meaning from people, not automated systems, that is available 24/7 is extremely valuable. This is what can make the difference in meeting your deadlines and retaining your own customers.

Support documents, specs, and guides, should be readily available. The best things in life are free; select a company that provides support and documentation at no additional charge.

“Don't forget total cost of ownership. Ongoing development costs can make purchase costs insignificant without the right support.”

Being Modern

We look at the some of the lift information and control technology being used in todays lift modernisations

AVAILABLE FROM
Emolice Distribution UK
visit www.emolice.com

STARTING PRICE
• Prices for LIMAX positioning start as low as £395 for LIMAX02x

E SAVINGS

- ▲ The financial case for magnetic systems is compelling with installers reporting labour savings of **87%** and contract maintenance call outs reduced by **33%**.

Emolice can build your Return on Investment and Total Cost of Ownership model with no obligation. Just drop us an email at sales@emolice.com or call on **+44 1344 266 530**

As UK and Ireland lift stock continues to age, modernisation has become big business. Lift installers look to technology manufacturers to reduce installation time and minimise maintenance to keep them competitive and their customers happy.

One area that can cost installers time is the installation and maintenance of lift information and control technology that senses lift speed and position. There are a number of lift position sensing technologies used by controller manufacturers

each with different advantages and disadvantages.

The most basic of these systems provide simple lift positioning feedback. Newer, more advanced systems also further reduce installation, modernisation and ongoing maintenance time by integrating end terminal speed limiting, end and inspection limit switches, door zone functions, compliance with EN81-A3 and safety triggering. We look at the newer magnetic products in detail on page 18.

OUR RATING



MAGNETIC SENSING SYSTEMS

Magnetic lift shaft information and control systems use magnetic tape technology to detect the elevator car's position in the shaft with high precision.

The concept is simple: a sensor mounted on the elevator car detects the current absolute car position using Hall sensors, which read the magnetic tape mounted in the shaft without any contact.

Using this method, the car's position can be determined at any time with high accuracy.

Due to their design magnetic systems are quickly installed and not affected by dust, dirt or smoke.

LATEST TECH:

We take a look at magnetic lift control on page 18



Magnetic systems are called "LIMAX" - here's a quick look at the top and bottom of the range



01 LIMAX-02M

Entry-level model with attractive price.

For hoisting heights up to 130 m | speeds up to 4 m/s.



02 LIMAX-44 RED

High Rise model with integrated safety.

For hoisting heights up to 1,500 m | speeds up to 18 m/s

Toothed Belt Encoder



This sensing system utilises a rotary encoder at the top of the shaft which is driven by a toothed belt which is in turn driven by the movement of the lift car.

This system is relatively simple and therefore fast to install, however with many moving parts the system may be susceptible to wear that can cause the belt to jump causing breakdowns.

OUR RATING



Tape Head



This older technology uses a steel tape on which magnetic strips are positioned to trigger the slowing and stopping of the lift car.

Installation is slow as each magnet has to be manual positioned. Many installers super glue the magnets in place to prevent unintentional magnet slip which can cause a breakdown.

OUR RATING



Ultrasonic Pulse



Sometimes referred to as 'Piano Wire' this system requires a great deal of care to install, as any damage to the thin wire may result in a breakdown.

The piano wire is suspended from the top of the shaft and a ring sensor attached to the lift car moves up and down the wire to determine the position.

OUR RATING



Vision Systems



A relatively new system which utilises a vision system attached to the car to read a 3D barcode printed on a transparent tape which is suspended the length of the shaft.

The system has the advantage of being non-contact so is quick to install but requires the tape to be kept clean to ensure reliable service. Can be affected by dust, dirt or smoke.

OUR RATING



Questions & Answers

Our most frequently asked questions

Q Is magnetic lift positioning new, I haven't seen it before ?

A Magnetic lift positioning has been adopted by most of the major lift manufactures over the past few years and is deployed globally in over 150,000 elevators. Next time you're walking through Heathrow terminal 2 or 5, take a look through any of the glass lift shafts, you'll see the signature green LIMAX system just above the car. Or you could just head over to the Emolice Youtube channel where we've captured it for you !

Q We buy our modernisation equipment as a bundle but I haven't seen the magnetic lift control system offered, how do I get it ?

A Most lift installation companies will purchase their lift information systems bundled as part of a modernisation package from their controller manufacturer. Emolice can work with the controller manufacturer so you can buy the magnetic system as part of your bundle. Ask your supplier to contact us and we will do the rest. Alternatively we can show you how to match your existing controller with the magnetic system. It's easy, we offer full training and we hold UK stock so the right solution is always available.

"Traditional sensing systems can be time consuming to install, require regular maintenance and can be affected by dust or smoke."

Every issue we look at a range of motion products. This issue we look at ROTARY

Encoders

ATEX / IECEx Encoders

Rated for Zones 1 & 2I, Oil and Gas as well as Mining. Compatible with most PLC's, available with a wide range of outputs including Profibus, DeviceNet and CANopen. To ensure mechanical integration is simple, ATEX encoders are offered with a variety of mounting options

Price Range



Fieldbus Encoders

Designed to make integration simple in both automation and mobile machine applications. Fieldbus encoders communicate over most popular interfaces from Profibus to DeviceNet as well as CANopen and J1939. A broad range of mechanical mounting and connection options ensure there is a solution for every application.

Price Range



Push Button Programmable Encoders

With no external programming device required to scale the output, this cost effective solution is available with an SSI output as well as industry standard current and voltage outputs. A broad range of mechanical mounting and connection options ensure there is a solution for every application.

Price Range



Programmable Encoders

For total flexibility, programmable encoders allow output parameters to be defined exactly to match the application. Available in both absolute (SSI output) and incremental models, variables include pulses per revolution or resolution and are set using the UBIFAST programmer which can be operated via any WIFI enabled device.

Price Range



POSITAL FRABA offers over 1 million variants of encoder, available with 24 hour manufacture !

Stainless Steel Encoders

Designed for food & pharmaceutical applications where exposure to moisture, fluid or water is a possibility. With IP ratings from IP67 to IP69K , stainless steel encoders are also perfect for marine applications such as winch and crane monitoring.

Price Range



PROFISAFE Encoders

Designed for use in safety critical motion control systems, featuring redundant measurement elements certified to Safety Integrity Level 2 (SIL 2) and Performance Level d (PL d). They feature a PROFINET communications interface and support the PROFIsafe protocol.

Price Range



SSI Encoders

One of the widest range of SSI encoders available on the market. Available with Binary and Gray code outputs. multiturn and single turn models are available with a variety of resolutions and mounting options.

Price Range



Magnetic Encoders

Reduced moving parts has created a more robust encoder at reduced cost. Utilising Wiegand energy harvesting to generate the energy necessary to remember it's position during a power out, these encoders have redefined encoder reliability.

Price Range



CANOpen / SAE J1939

Mobile machine encoders available with a choice of technologies (magnetic and optical) , broad range of mechanical mounting and connection options ensure there a solution for any mobile machine application.

Price Range



A Focus On ATEX

Our guide to key products for ATEX Zones 1 and 2

The POSITAL range of ATEX products is already well known and field proven to be not only ATEX

compliant but also rugged enough to cope with some of the most

demanding of applica-

tions. Whether it's offshore

or onshore oil & gas, an

exploration platform or a

refinery, POSITAL explosion

proof IECEx and ATEX cer-

tified products can provide

accurate positioning and speed monitoring in

pipe handling equipment or in blow out preven-

ter (BOP) systems.

For mining applications, complicated machines such as mining drill rigs, excavators and mobile hammering systems must perform

flawlessly under the harshest conditions. For these applications the ATEX certified IXARC rotary encoders can be used to provide precise positioning of drill heads and masts. Single and dual axis POSITAL TILTIX inclinometers further equip

"Proven solutions for ATEX Zones 1 & 2 that provide Rotary, Linear and Angular measurements"

operators with essential information for platform levelling and arm positioning.

Finally, linear measurement in ATEX zones is made possible with the POSITAL range of draw wire linear encoders.

OPTIONS

ACCURACY

$\leq 0.09^\circ$ (Magnetic), $\leq 0.022^\circ$ (Optical)

COMMUNICATIONS

Position output in almost every available industrial interface

REVOLUTION

Singleturn, Multiturn: 12 bit (4096 rev), Multiturn: 14 bit (16384 rev)

RESOLUTION

13 bit (8192 Steps / 0.044°)
16 bit (65536 Steps / 0.005°)

CONNECTION

Multiple connection types

Connectivity

The IXARC ATEX encoders are available with Push-Pull, RS422, SSI, Analog, Profibus, Profinet, CANopen, Device-Net, EtherCAT, EtherNET / IP interfaces.



"Proven, market leading ATEX encoders"

IXARC ATEX

Rotary Encoder

CERTIFICATION

Group I (Mining) : Ex I m2 Ex e mb I mb

Group II (Above Ground Operations) : EX II 2G Ex e mb IIc TX Gb (explosive gases) EX II 2D Ex tb IIIB T80°C Db (flammable dust)

KEY STATS

Absolute:

Multiple Interface Options: analog, Ethernet, Fieldbus, Parallel, Serial
Singleturn and multiturn
Resolution up to 16 bit
Optical / magnetic technology

Incremental:

A, B, Z, and Inverted Signals as HTL (Push-Pull) or TTL (RS422)
Any Pulse Count to 16384 PPR
65384 Edges Quadrature
Programmable for Flexibility
Magnetic measuring Principle

LINARIX

ATEX Linear Encoders

CERTIFICATION

Group I (Mining) : Ex I m2 Ex e mb I mb

Group II (Above Ground Operations) : EX II 2G Ex e mb IIc TX Gb (explosive gases) EX II 2D Ex tb IIIB T80°C Db (flammable dust)

KEY STATS

Measurement lengths ranging from 1 m to 30 m [3 to 98 ft]

Position output in almost every available industrial interface both analog and digital as well as incremental and absolute

Measure linear motion by displacing a stainless steel wire wound around a wire drum that actuates the rotary encoder



"Multiple housing types are available for the LINARIX range"

Connectivity

The IXARC ATEX encoders are available with Push-Pull, RS422, SSI, Analog, Profibus, Profinet, CANopen, DeviceNet, EtherCAT, EtherNET / IP interfaces.

**" $\pm 80^\circ$ (Aual Dxis) ,
360° (Single Axis) "**



Connectivity

The TILTIX ACE & ACM are available with CANopen, DeviceNet, Analog, SSI, SaE J1939 and ModbusRTU interfaces

TILTIX ACE & ACM

ATEX Inclinometers

CERTIFICATION

Group I (Mining) : Ex I m2 Ex e mb I mb

Group II (Above Ground Operations) : EX II 2G Ex e mb IIc TX Gb (explosive gases) EX II 2D Ex tb IIIB T80°C Db (flammable dust)

KEY STATS

High Vibration and Shock Resistance

$\pm 80^\circ$ (dual axis) or 360° (Single axis)

Rugged aluminium and 316 Stainless Steel Housings

Accuracy 0.1° and resolution 0.044°

ErreDue is an Italian industry leading machine builder for generating and purifying gases. Thier products enable their customers to produce gas on site, safely and efficiently, whether in a small labs or large factories,



"The Vison350 with an Ethernet port on-board, makes our generators better performing, more versatile and more innovative than our competitors'."

How do you choose a PLC? With a multitude of options, it can be a bewildering prospect. Whether you choose the PLC yourself, ease of use and local support becomes a factor in making your decision.

Emolice are a proud Unitron

Death of the micro controller

How a small machine builder gained a serious advantage over its competitors

To say that ErreDue has been meticulous in the process of developing their new line of micro-generators for Hydrogen, Oxygen, and Nitrogen generation would be an understatement.... Whilst most of their competitors still use microcontrollers on similar product lines, ErreDue were determined to use PLCs (Programmable Logic Controllers) to control their next generation of generators. The ErreDue engineers were pragmatic in their approach; they wanted a control option that was compact without compromising usability and functionality. They selected a Unitronics Vision350; this all-in-one controller offers a full-function PLC integrated with a touchscreen HMI and onboard I/O. The all-in-one approach added a lot of value for ErreDue. They were able to integrate an easy-to-use HMI panel, a powerful CPU, I/O and Ethernet and serial communications without adding a lot of bulk to their system. In addition to matching ErreDue's physical requirements, the Vision350 also offered impeccable performance. Engineer

Claudio D'Angelo is succinct in his evaluation of the Vision350 "this device, with an Ethernet port onboard, makes our generators better performing, more versatile and more innovative than our competitors." Most of ErreDue's competitors use microcontrollers with monochrome LCD displays and membrane function keys, so the colour touchscreen and function keys of the Vision350 were a major step up for the user interface and experience. Additionally, the Vision350's robust Ethernet and RS485 communications enabled the generator to be monitored and controlled remotely, with fast and reliable data exchange. D'Angelo adds "the software programming is easy and intuitive. Technical support is always fast, punctual, and reliable."

Unitronics Vision350



...ude of different options on the market, choosing a PLC
you're a system integrator or you plan to programme
support all figure just as much as functionality when it

Unitronics Sales & Support Partner in the UK

MISSION CRITICAL

FEATURE

Mission Critical Motion

PROFISafe is becoming the defacto communication method for mission critical applications

AT POSITAL they have been busy expanding their family of IXARC absolute rotary encoders to include models explicitly designed for use in safety-critical motion control systems. The new encoders feature redundant measurement elements and are certified to Safety Integrity Level 2 (SIL 2) and Performance Level d (PL d). They feature a PROFINET communications interface and support the PROFISafe protocol. PROFISafe-based control systems are used for critical applications such as industrial robots or material handling equipment, where loss of control could result in hazardous situation. The encoder transmits a safety position and/or safety velocity value.

A Quick look at the IXARC specification reveals that POSITAL have checked all of the option boxes as standard; Reliable Redundant Magnetic Measurements, Safety Integrity Level 2 (SIL 2) and Performance Level d (PL d) approvals, High Vibration and Shock Resistance design, Saltwater Resistant Protection Class up to IP69K, Status LED's, Counts up to 4,096 Absolute Turns, Maximum Resolution of 13 bit, Real Time Accuracy of up to $\pm 0.2\%$, finally Clamp, Synchro and Blind-Hollow Flanges can be specified.



Magnetic Position

We take a closer look at the LIMAX33 Lift Information & Control System

LIMAX33 CP is a magnetic tape-based shaft information and control system, which thanks to its fast, easy installation saves installers significant time and money during the modernisation of lifts.

The LIMAX33 CP system meets all the requirements for lift car positioning measurement including EN81-A3 and its associated switching and control functions. In addition, the technology has the advantage of the measurement system being insensitive to dirt, dust, smoke and moisture.

A typical system consists of three components:

- Magnetic tape with absolute encoding
- Tape detector sensor

- LIMAX33 CP sensor for recording lift car position, switching and control functions.

"LIMAX leads the competition in every way"

The encoded magnetic tape is attached with the help of a simple installation kit and an integrated safety switch serves to detect the presence of the tape. The LIMAX33 CP sensor records the absolute lift car position using contact-free scanning of the magnetic tape.

LIMAX SAFE systems are also available with integrated safety systems that replace much of the traditional safety equipment.

Product descriptions, datasheets and videos on how LIMAX works and is installed can be found on www.emolice.com

Add SAFE BOX To LIMAX

- Speed limitation, no separate speed governor systems needed at the end of the shaft
- Door bridging function, no floor magnets and switches needed
- Limit switch function, no with safety limit switches needed
- Triggering of electromagnetically activated clamp brake via safety relay
- No mechanical governor required
- EN81-A3 prevention of uncontrolled lift car movements
- EN81-21 reduced height of shaft pits or shaft heads
- Teach-in of floor positions via conventional CAN (CIA406 or CIA417) interface
- Cyclical monitoring of the entire shaft image
- Programming of door zone lengths, emergency and inspection limit switch offsets up to limits defined according to EN81 via CAN interface

LAUNCH CALENDAR

Winter / Spring

OCTOBER 7TH EMOLICE ANNOUNCE POSITAL

EMOLICE are pleased to announce their appointment as the exclusive UK&I sales partner for the POSITAL FRABA range of rotary linear encoder and accessories

MORE INFORMATION:
<https://goo.gl/JHTc6J>

OCTOBER 12TH YOUTUBE !

Our new Youtube channel is now live, featuring tutorials, product demonstrations and more !



MORE INFORMATION:
<https://goo.gl/TnBE49>

FEBRUARY 1ST

EMOLICE ANNOUNCE ELGO

EMOLICE are pleased to announce their appointment as the exclusive UK&I sales partner for the Elgo magnetic linear measurement range.

MORE INFORMATION:
<https://goo.gl/JHTc6J>

NOVEMBER 7TH CANOpen Encoders

POSITAL's IXARC high-precision magnetic absolute rotary encoders are now available with CANopen interfaces.

MORE INFORMATION:
<https://goo.gl/ZLHY9Y>



OCTOBER 7TH THE SOCIALS

Follow us ! All of our latest information is shared live via our social media channels:



MORE INFORMATION:
Twitter: @emolice
Linkedin: emolice-distribution

featured launch



MARCH 30TH EMOLICE ANNOUNCE UNITRONICS

EMOLICE announce that they will be acting as UNITRONICS' UK Distributor supplying the full range of UNITRONICS HMIs and PLCs.

MORE INFORMATION: <https://goo.gl/elgCFX>

LIMAX LIFT INFORMATION & CONTROL

The LIMAX range of lift information and control systems is now available in the UK exclusively from EMOLICE.



MORE INFORMATION:
<https://goo.gl/o3XY9v>

MARCH 26TH POSITAL FRABA 2017 CATALOGUE

POSITAL have launched their 2017 catalogue of rotary and linear encoders and accessories.



MORE INFORMATION:
<https://goo.gl/2he4a1>



Based just outside the beautiful Bracknell Forest, Emolice are a one of the fastest growing automation companies in the UK

Talking Emolice

To make an instant impression in the highly competitive world of automation technology is tough. But as a young, fast growing company, the Emolice team had never expected their fiercest challenge to come in the form of their Northern Sales Manager, David Broadhead. David is a Design Engineer, proud Yorkshireman and veteran of the automation industry. He had spent the past 20 years in North America before returning to the UK in 2015 to join Emolice. "When I first met the Emolice team, I was both genuinely surprised and to be honest, fairly sceptical. I've worked with a number of companies over the years who claim to understand the challenges an engineer faces, yet they never really got it. But my scepticism soon passed - these guys have truly got it nailed and I joined on that basis". The Emolice philosophy is simple, by partnering with the best automation manufacturers globally in their field, they have a solid foundation by which to offer market leading products, combined with an innate local knowledge of how to best make those products work for a given application.

As the latest addition to the Emolice team, Victoria Burns is part of a back office team that have one clear aim - to provide the best customer administration and service in the industry bar none. Which is not as difficult as it sounds: "Our UK team are first class, and our 2nd and 3rd tier support at our manufacturers is amongst the best in world.". She continues, "We have access to both the regional support teams at the manufactures but also direct access to the central design teams. Our relationships with our manufacturers mirror those that we have with our customers, and what better way to fix a tricky application challenge or create a special variant than to go straight to the people who designed it !"



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