

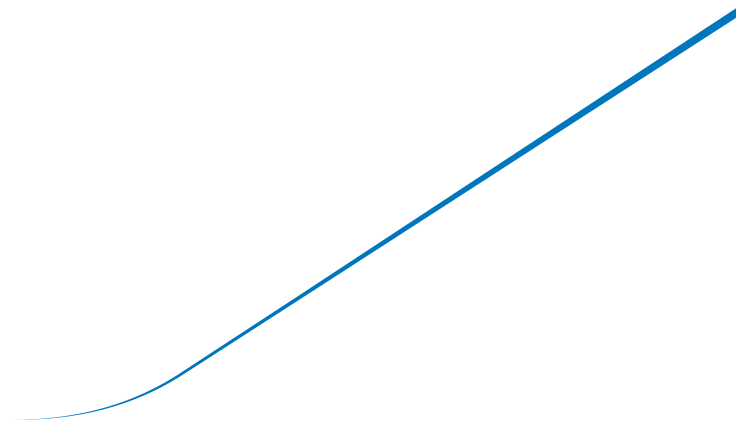


Expertise – Passion – Automation



Smart Flexibility

SMC's approach on Industry 4.0





“You can have it in any colour, as long as it's black”

Over a hundred years ago, Henry Ford was sure to have a product market fit. Nowadays it could sound pretentious, but they were definitely other times. Throughout the 20th century, manufacturers held the sovereignty on deciding what to place on the market, without having to actually cater really for the customer's whims and wishes.

The tables have turned and the industry has grown to become customer centric. From mass production to mass customisation. A new manufacturing philosophy with many surnames, Industry 4.0, Factory of the Future, or Digitalisation.

We, as customers, demand individual, custom-made, high-quality products. We want to feel special and will direct our loyalty and good reviews at those who satisfy us. We, as customers, require, demand, expect.

We, as suppliers, strive to provide unique value to our customers in a cost-effective and fast way, so they can be more efficient. We aim to devise utterly flexible production systems so they can respond quickly enough to changing market demands, while enhancing competitiveness. We, as suppliers, provide, fulfil, adapt.

All begins and ends with us, people.



Smart technologies won't shape the future for us, they are in our hands and it depends on us how we use them to shape our future. The bottom-line here, is what, us humans, do with them.

Furthermore, Industry 4.0 is not an item that can be simply ordered from a catalogue. It requires of competent industrial automation manufacturers and solution providers, that working together with customers, fulfil current customer centric markets. Because engineers need to know what they should do and with whom, when and how.

For SMC it is about helping our customers building the flexible machines that will materialise the adaptability, speed and customisation their markets are urging them. It is about working day-to-day close to our customers and implement together the available smart technologies.

All this new scenario, demands as well, a great flexibility from our side as the requirements of our customers are quite different: from new equipment to retrofit of existing machines; from predictive maintenance to artificial intelligence. Each customer is at a different level. Our aim: to adapt to all of our customers' idiosyncrasy so all of them get exactly what they need.

MR. MICHAEL LOSERT

INDUSTRIAL APPLICATION CENTRE COORDINATOR
SMC GERMANY

This is what SMC's Smart Flexibility means to you:

- **Flexibility in industrial networking** for communicating your machines and devices, making real the dream of connecting everything wirelessly
- **Smart maintenance** with predictive maintenance and condition monitoring as our way of maintaining the certainty and reliability of your production process
- **Flexibility in machine adjustments** for a quick reaction to ever-changing market demands in order to provide fast format changes in flexible and modular machines
- Our commitment to the environment, **Smart Energy Efficiency**, betting on sustainable and respectful urban-production.

This is the way to achieve intelligent manufacturing, with components and solutions that are equipped with the appropriate functions and interfaces for cutting-edge processing. With them, your machine data is immediately available worldwide for you at all levels of your company; with SMC, your machine will be prepared to match the Industry 4.0 requirements.

“It's about helping our customer to build the flexible machines that will materialise the adaptability, speed and customisation their markets are demanding”.

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Mr. Michael Losert.
Industrial Application Centre Coordinator, SMC Germany

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Smart Flexibility

We are aware that the market demands customised products in a cost-effective way without skipping high quality; and he wants them just now, tomorrow could be too late. Even more, we must get them on an environmentally friendly basis.

The direction to follow is clear: we need to transform ourselves technologically so as to get urban production smart companies. Improvements in the quality and efficiency of the production model so as to make our companies much cleaner, flexible, predictive, productive and effective.

Take a tour of our product catalogue, we help you to manage your productive processes better. **Smart Flexibility** for smart & flexible manufacturing.

Flexibility in industrial networking



Smart maintenance



Flexibility in machine adjustments



Smart Energy Efficiency





Flexibility in industrial networking

Process automation communication protocols are openly advantageous in high-capacity, high-speed and network integration. Unified communication architecture throughout your manufacturing process, coherent integration of control, motion, configuration and diagnostic, easy upgrade of existing automation investments... these are just mere examples of all the benefits of using a process automation protocol for networking your company.

Plus, SMC gives you an extra with our networking solutions that communicate in any language and offer a high degree of access to and feedback from automation components via control systems. In short, flexibility and versatility to respond to process automation demands.

Main product: EX600, EX260, EX500, JXC□1, JXC□2/□3, ITV Series

Other product: EX245, LEC-G Series

Flexibility in industrial wireless networking

In smart factories, everything will be connected wirelessly

Everything would be on the cloud. Analysis of status data and its changes, forecasts made about the possibility of failing in the future; in summary, increased quality by modifying the production process from being preventive to predictive.

This is the vision of tomorrow's manufacturing, products finding their way independently through the production process.

In smart factories, machines, devices and raw materials will communicate and control each other cooperatively, being connected thanks to sensors and communication technologies. These systems, called cyber-physical, will offer tailor-made products with relatively affordable prices for the customer. Modules that are intelligent and easily adaptable to changes for highly flexible mass production.



At SMC, we are on the right path, helping you to make the future be present by joining the advantages of our networking solutions to the ability of skipping the cables. Much more flexibility and versatility with our innovative and unique wireless & decentralised network solution, EX600-W.

Specially designed to provide high precision and great robustness for the automobile body welding, not only does it simplify your machine, but it also allows for simple layout modifications and quick connections while offering a totally reliable, noise-resistant communication.

Being ideal for welding environments, rotary tables, or tool changes and powertrain production line in robot arms, you can put it to work anywhere.

Main product: EX600-W Series

Flexibility in industrial networking with IO-Link

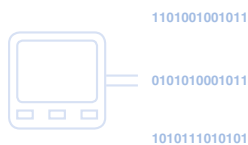
This trendy open point-to-point communication protocol, by using internet connected machinery to monitor the production process, grants for dynamic production processes. Standard wiring, noise immunity, plug&play sensors with automatic setting or increased data availability remotely – directly back through the network – are some of the keys of this communication technology that benefits from diagnosis during operation and modify operating parameters, allowing to increase the process efficiency and improve the machine availability.

No need for costly program changes on the control side to adapt your machines, just operate – master, sense and actuate – your automation as your needs with the SMC IO-Link product. *Smart products for smart machine solutions.*



IO-Link with SMC: The 6 advantages

1. Increased data availability



2. Product diagnostic



3. Standard wiring



4. Remote access




5. Easy device replacement



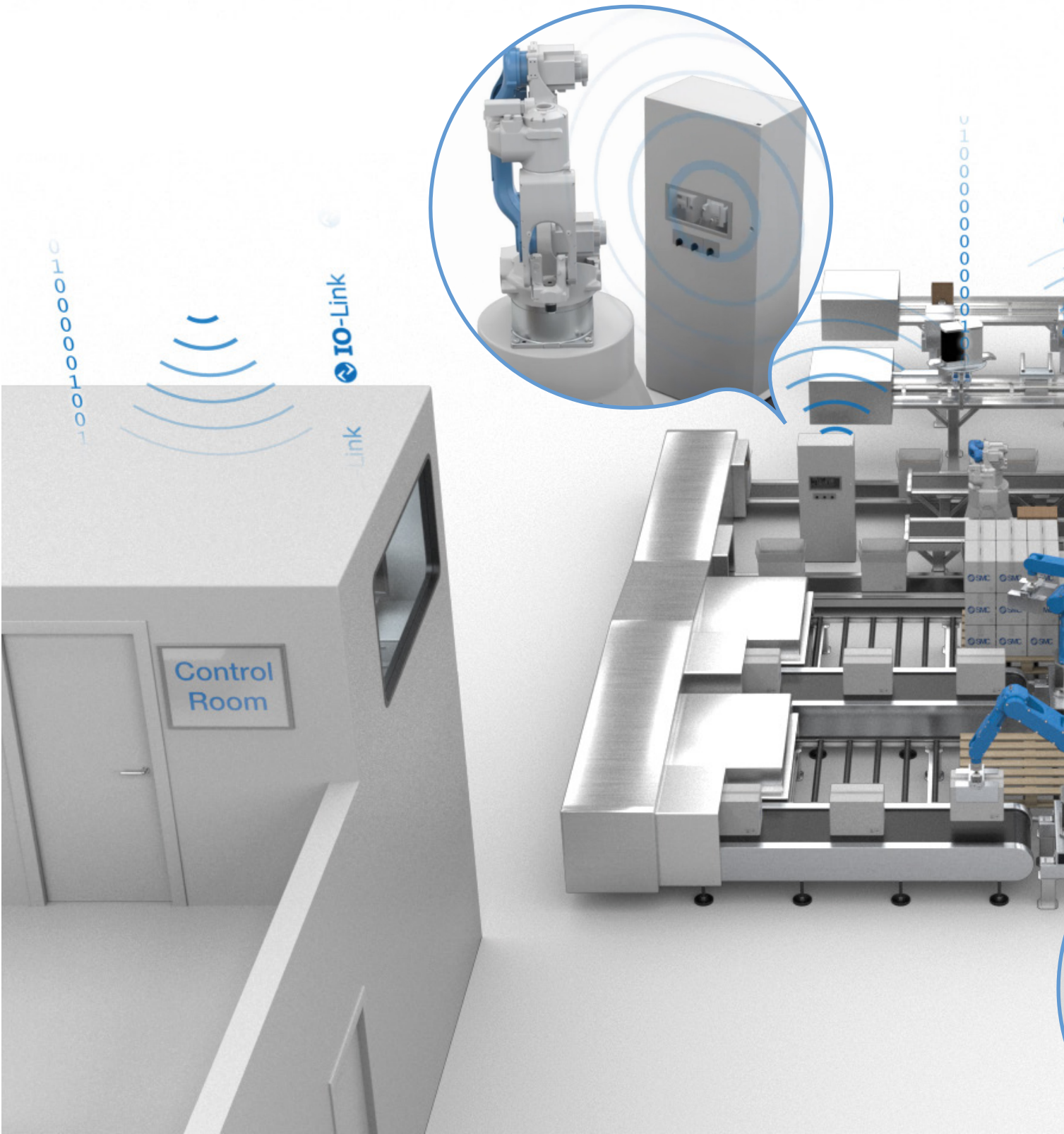
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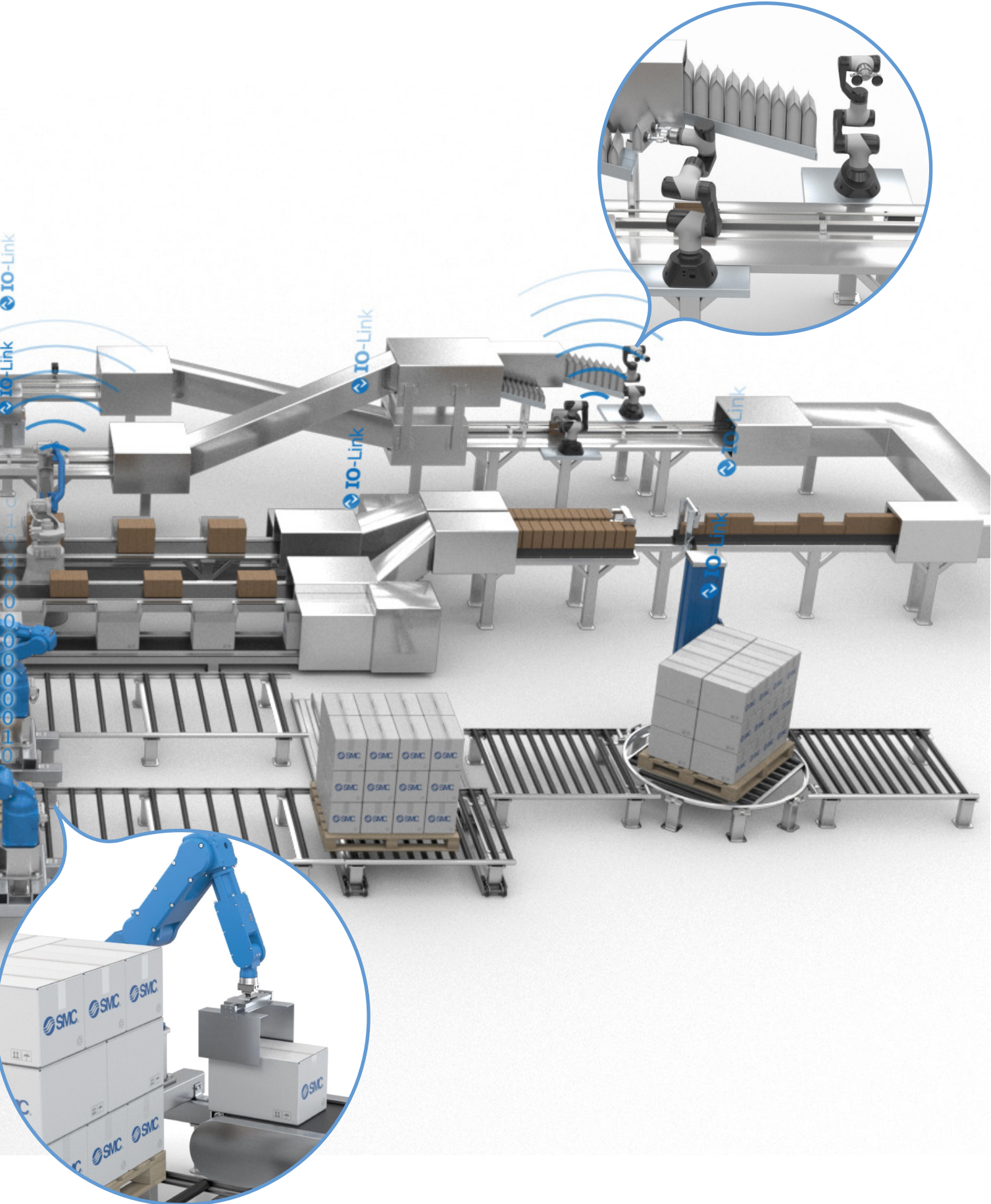


Applications



Our solutions
connect all-to-all







Smart maintenance

In the modern industry it is not enough to just maintain, but to do it smartly, making a more efficient use of resources and engineering assets. Being able to analyse status data and its changes, allows us to make predictions about the possibility of failing in the future, thus noticeably improving the production process from being merely preventive to being predictive.

Monitoring, detection, diagnosis... in two words **Smart maintenance**, the ability to intelligently support the complete life cycle of a product and substantially enhance quality to the maximum.

One of my closest customers is a production manager at a Tier One automotive plant. Most of our professional chats are based on addressing the efficiency of production equipment, because the reliability of equipment directly affects your customers' confidence. Without productive reliability it is not possible to triumph in industrial flexibility.

Within the framework of productive organisation and the necessary management of resources (people, times, logistics, raw materials), this customer uses the OEE as an indicator. Moreover, to measure whether his manufacturing is also intelligent, he has established that his OEE should never be less than 80%, thus ensuring that his productive resources obtain a high degree of availability and performance.

It is currently at 82 %, no doubt a good figure. But there are hidden enemies, sometimes out of his reach, and which destabilise his magic figure: UNFORESEEN EVENTS and the TIMES spent on preventive maintenance.

Our response to maintain certainty and the reliability of his production process was clear: Smart maintenance.

In this new era of the Smart Factory, maintenance practices are advancing at a higher conceptual level using technology as a support. We often find that for many of our customers, this concept is still quite overwhelming, but what we always convey to them is that technological evolution should serve to make production reliable and to improve it, not to complicate it. Our goal is to show you how technology makes finding solutions to consequences easier and addresses reliability at the source of your problems.





From SMC we support our customers in the implementation of Smart Maintenance, with simplification and flexibility as key concepts to implement the maintenance strategies that best suit their needs:

1º. Be quick to identify and act – Corrective maintenance



The cost of the intervention is always higher than the cost of the component

Get ahead, make a “fast” diagnosis where the failure occurs to facilitate the replacement of the problematic component.

2º. Automate repetitive preventive maintenance work and save time in other activities – Preventive maintenance



Don't wait for a stop to check or do something, it costs more

Automate preventive tasks and perform equipment autochecking: manufacture and verify at the same time.

3º. Anticipate the consequences by controlling an evolution – Predictive/conditional maintenance



Diagnose and analyse developments in real time

If you are able to manage different diagnoses through an evolution in the data, you will be able to anticipate the failure, having to hand information that you previously obtained with specific extra equipment.

4º. Use new technologies and redesign to make the origin reliable – RCM maintenance



Ask yourself and analyse what the origin of a problem is, think about it, and make it reliable.

Search for the origin, try to address the probable cause of the incident on a broader plane to see whether or not you have controlled its origin.

Mr. ALBERTO MORÁN
INNOVATION MANAGER, SMC SPAIN



Flexibility in sensing & monitoring

Analogue or digital, pressure or flow, a wide range of sensors and switches that provide you with information about what is happening in your production line and its surroundings. All with extra features that make them adaptable to any situation.



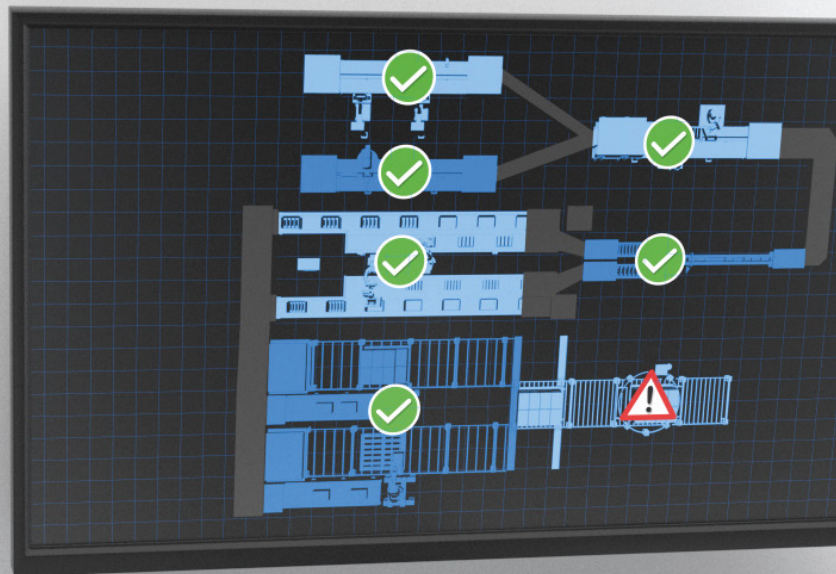
Flexibility in diagnosing

We want you to assure at all times that your process runs correctly. A proper and agile detection of failures makes it possible to act without delay, thus increasing efficiency and improving quality. We provide you with products with a large number of diagnosis points to ensure that the process runs like a dream at all times. Diagnosis to make your process carefree.

Applications



Boost your reliability





Flexibility in the communications

Quick & remote access, status monitoring, failure diagnosis, parameter setting and forced output are some of the tasks that can be managed via a general-purpose web browser. With a web server function, start-up of the system and maintenance can be efficiently performed leading to a quick reaction to any change. Even more with IO-Link, as the overall setting control from the control system for continuous changes in parameters minimises time, thus increasing machine availability.

All of the above without forgetting that fieldbus gives us real-time distributed control, where an operator can monitor or operate the automated industrial system. At the bottom of the control chain, these industrial network protocols link the PLCs to the components that actually do the work, such as sensors, actuators, electric components, switches and valves among others.



Design flexibility for maintenance

It is no use investing time in a detailed and in-depth maintenance if its implementation requires great investment in time or disassembly of a machine, for example. Therefore, it is vital that the design of a component facilitates its replacement, parametrisation and adjustment.

Main product: EX600(-W), EX260, EX500, SY, JSY, ZSE20□/ISE20□, ISE70□/7□G, PFMB, PF3W-Z/L, PF3WB/C/S/R, PSE200A, PSE300A, ISA3-L, IZT, HRS Series

Other product: ALDS, PFG300, ITV, DM-P, LECS/LECY, JXC Series



Flexibility in machine adjustments

Intelligent manufacturing plays a determining role in Industry 4.0.

Because it is no longer a question of automating manufacturing, but to do so intelligently.

The increase in individualised products requires flexible, effective and intelligent manufacturing, and confining machines to closed and unmodifiable designs is not the way forward: machines must combine flexible and quick format changes with high cycle rates and low life cycle costs.

We've already said it: SMC's philosophy focuses on flexibility: flexible and modular machines for intelligent manufacturing, and intelligent manufacturing for a quick reaction to market changes. Everything you need for fast format changes and for guaranteeing high reliability and production efficiency. **Flexibility in machine adjustments for smart automation.**

Main product: EX600(-W), EX500, EX9-PE1, SY, JSY, PF3WB/C/S/R, ISA3-L, LE, ZP3P, ZP3P-JT, MA, RZQ, MSZ, AS-FS, JAS, TU, KQ2 Series

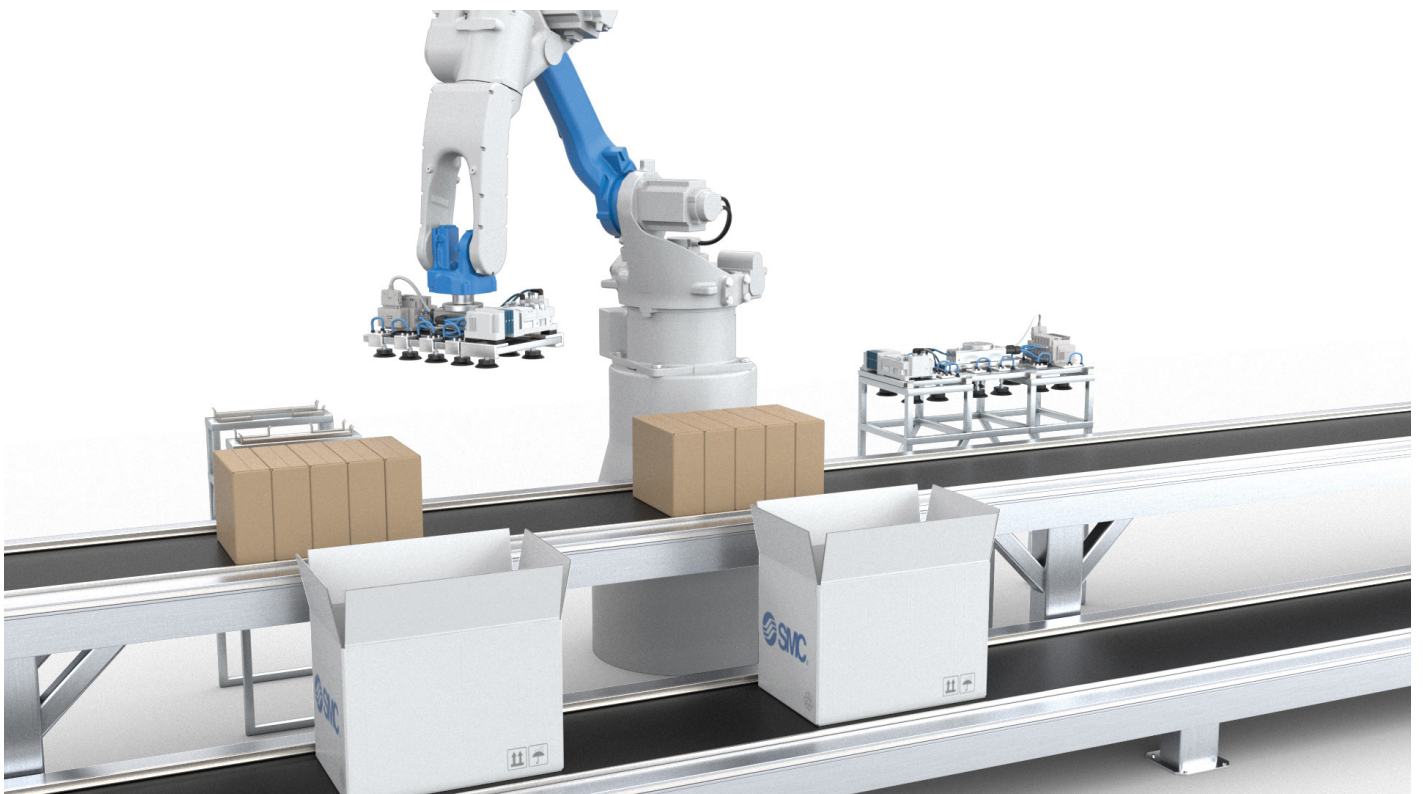
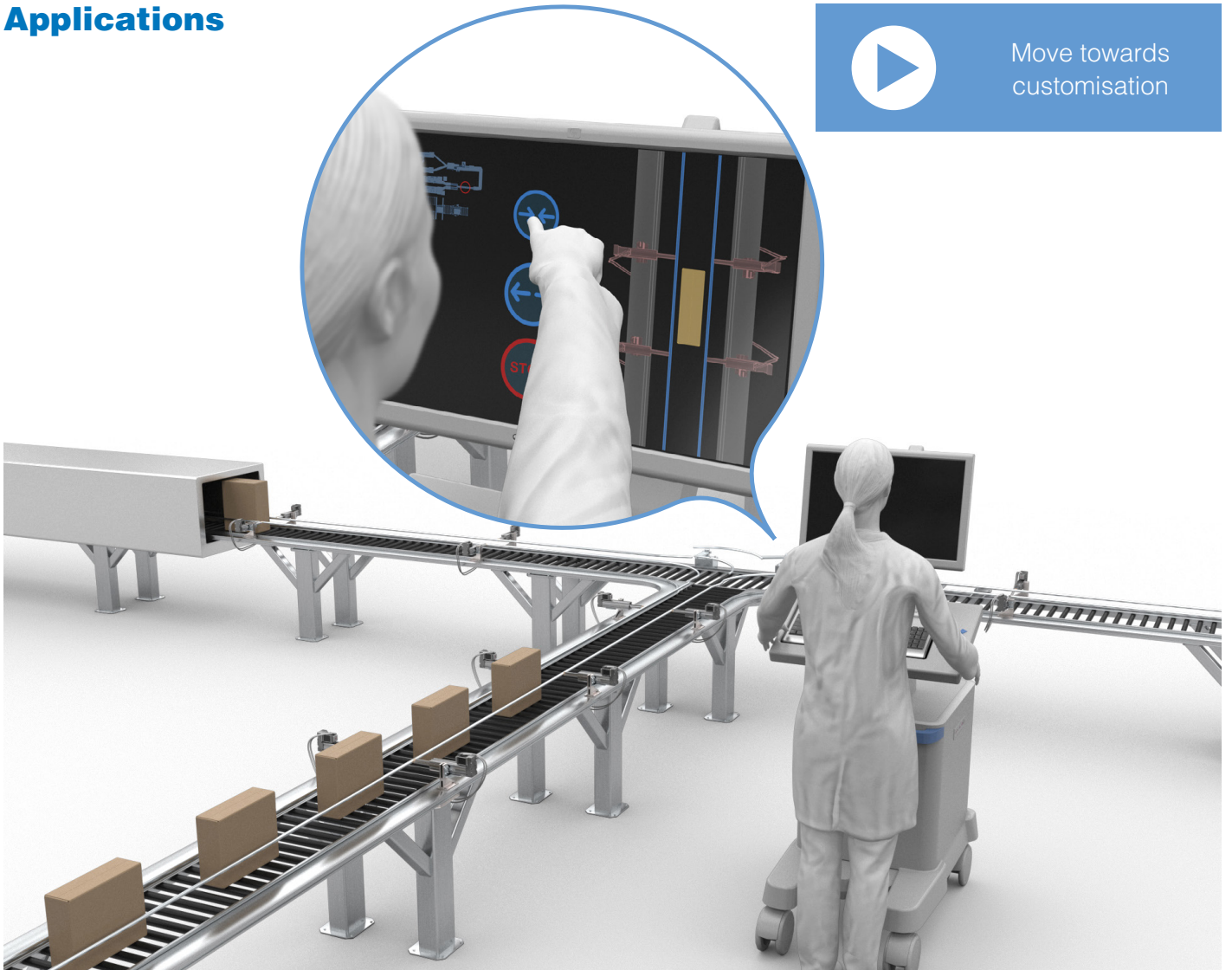
Other product: MHM, MHS, VEX-115 Series



Applications



Move towards
customisation





Smart Energy Efficiency

SMC is approaching energy efficiency with two commitments: commitment to you and your efficiency, and commitment to sustainability.

We work towards sustainable development with you based on five cornerstones: generate just what you need, recover what you generate, monitor your consumption, use only the essential and think efficiently. SMC not only provides you product for energy saving, but intelligently thinks for you to reach a real & sustainable industrial revolution, **Smart energy use to promote productive sustainability.**

Main product: ALDS, VEX-X115, ZK2, AS-R, AS-Q Series

Other product: JSY, ZSE20□, ISE20□, ISE7□, PFMB, PF3W-Z/L, ITV, MHM, EX245, SY Series

Applications



Be sustainable



The Expert's experience:



Mr. Barry McDermott

AUTOMATION AND
EFFICIENCIES ADVISOR,
SMC INDUSTRIAL
AUTOMATION (IRELAND)
LIMITED

Energy efficiency is becoming a must for many of our customers. Either as part of their sustainability program for corporate social responsibility, maybe due to mandatory regulations affecting their business, or just because it is an approach towards stepping up their competitiveness.

In general terms, we tend to consider where and when we can implement energy efficiency measures: "now", through actions which reduce the use of energy in our customers' installations; or in the "future", by thinking of conversion to energy efficient facilities and machines.

It is right there, in that vision to the future, where the greatest opportunities arise: thanks to the rapid development in automation, the opportunity for achieving smart energy efficiency has never been greater. Smart Energy Efficiency for Smart manufacturing.

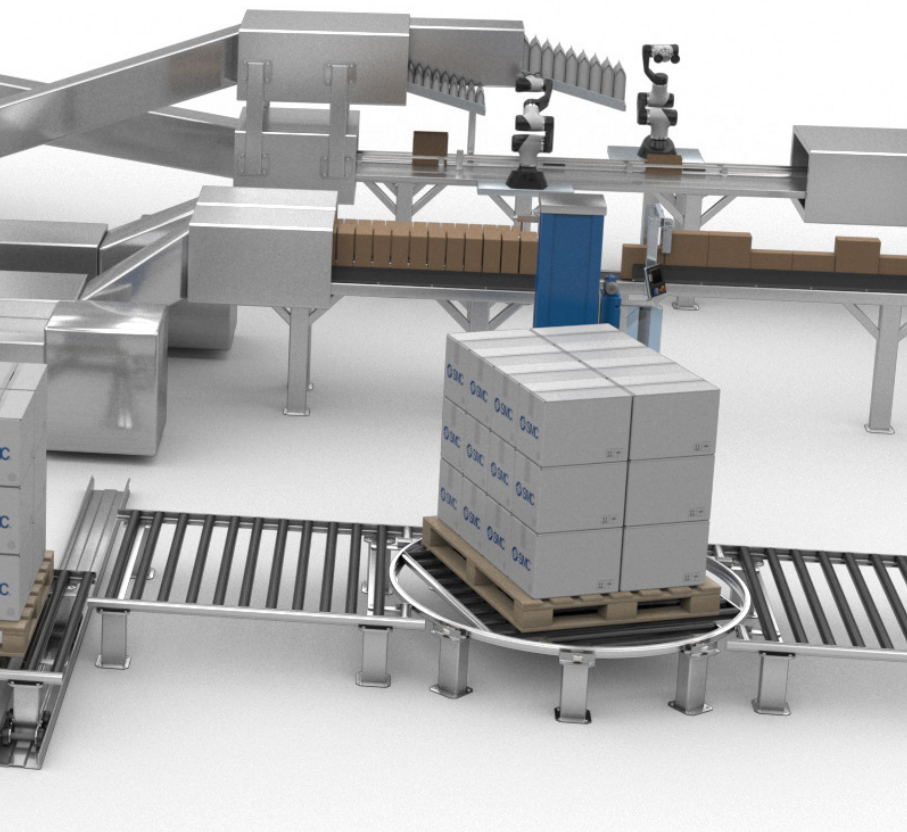
We have already joined many of our customers on their journey to future savings, working together from the very beginning - at the machine design stage. Based on our experience, it is mainly when considering the energy requirements up front, during the design phase, where we are able to be truly energy-efficient and sustainable. Some of the solutions we can bring along in this phase are:

Condition monitoring tools which will provide information such as flow rate and pressure

Efficiency methods such as an Automatic Leak Detection System, ALDS, which provides near real time leakage monitoring and a VEX Stand-by Valve which reduces air consumption during dwell periods of a machine cycle

Smart technologies that can provide parameter, process and diagnostic data directly through the network, to where it is needed.

Through careful planning and a systematic yet relatively simple approach, together with products designed by SMC that are specifically aimed at reducing energy consumption, our customers have achieved the necessary end results, but with considerably lower energy input than traditional methods.



Product details

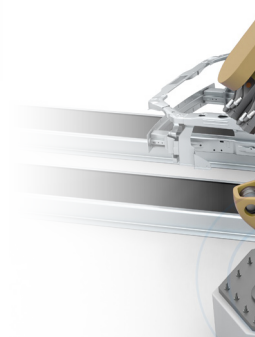
Are you prepared for greater availability, smart energy efficiency and just-in time production supported by intelligent maintenance? In two words, are you prepared for **Smart Flexibility**?

SMC offers you a wide range of products to adapt to changes for this highly individualised & flexible mass production to reach.

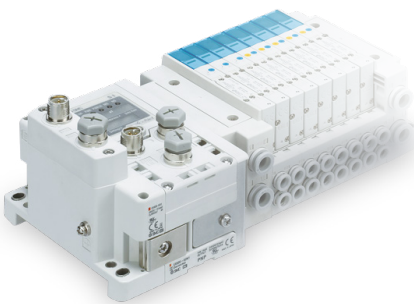
Wireless fieldbus system – EX600-W Series



- The unique and innovative decentralised wireless system. No cables. No electrical noise
- Flexibility in the machines with simple layout modification & quick connection
- Additionally, the same flexibility and functionality as the EX600 fieldbus system
- Compatible protocols: EtherNet IP™, PROFINET.



Fieldbus system, integrated type for input/output – EX600 Series



- Communication ensured every time thanks to several functions and capabilities (Quick Connect, FSU, DLR or MRP)
- Communication in several Ethernet-based Fieldbus and other common industrial communication protocols
- Enhanced efficiency with easier maintenance by self-diagnosis, I/O open circuit detection and I/O signal ON/OFF counter functions
- Extra webserver to check the status together with the operation of the valves and management of analogue, digital and pneumatic products
- The most flexible electrical multipoint system for digital and analogue I/O, with all-to-all connection to the most commonly used valve manifolds
- Compatible protocols: CC-Link V2, DeviceNet™, PROFIBUS DP, EtherNet/IP™, EtherCAT®, PROFINET.

Fieldbus system, gateway decentralised type – EX500 Series



- Decentralised industrial communication system with automatic setting of the address of up to 4 subnetworks
- Improved efficiency with functions and capabilities such as Quick Connect, FSU, DLR or MRP
- Webserver function to know the status check or valve operation test (ON/OFF), plus detection of open circuit and short circuit or cycle counts on I/O status, some of the tasks that this solution brings to efficient maintenance
- Compatible protocols: PROFINET, EtherNet/IP™, DeviceNet™, PROFIBUS DP.

Our unique Wireless System would have not been possible without you

One of our recent star launches, and what has turned out to be a key solution in the Smart Flexibility arena, started out with a casual conversation with one of our customers.

This leading manufacturer in the automotive industry explained to us that while designing their next generation production line, they realised the hassle that the number of wires and tubing for the jig entailed; the fact that robots are the same time and again, unchanged throughout the years. For example, 2 air tubes for cylinder extending and retracting and 2 auto-switches for extending and retracting: no technical evolution whatsoever. This car manufacturer was determined to modernise this aspect and somehow considered wireless technology, like a possible good solution.

The customer was then invited to SMC's Japanese Technical Centre for what we call an "Engineering exchange meeting". This is a session where technical departments at both ends start defining the product specifications. Customer technicians were encouraged to put their wish list on the table, and to tell us how, in ideal terms, that solution should be.

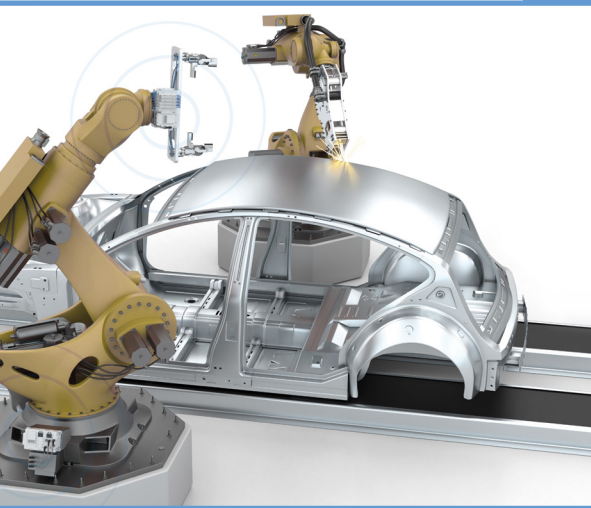
This wish list did indeed present our R&D engineers with quite a few technical challenges. The reliability of wireless communication would solve the need for high noise immunity for industrial environments, as for example in AGV (automatic guided vehicle), without a doubt. As such, through intensive cooperation between both departments, the final set of technical specifications were agreed upon and the first prototype was handed over to them.

The trial was done in a roll-hemming application in a domestic factory. During the test period, the customer declared their satisfaction with the neat layout, together with the reduced source of failures. The wireless unit was then installed throughout their entire production line. Up until now.

Given its global launch, this is precisely the prevalent feedback. When SMC's wireless unit is tested, it prevails.

The bottom line for us at SMC is that, the design and development of this outstanding solution would not have been possible without communication: without us listening closely to our customers, and without them feeling comfortable to dream and share their visions with us to improve their application.

SALES DIVISION, SMC CORPORATION



Fieldbus system, integrated type for output – EX260 Series



- The perfect cost-effective serial interface solution that communicates in many languages
- Easy operation setting and quick connection with reduced installation and start times. – Daisy-chain wiring communication
- Compatible protocols: PROFIBUS DP, DeviceNet™, CC-Link, PROFINET, EtherNet/IP™, EtherCAT®, Ethernet POWERLINK.

Fieldbus system for input/output, AIDA compliant – EX245 Series



- The tailored solution to the automotive industry that addresses the ends of users who operate reliable networks in difficult electromagnetic environments
- Compatible protocols: PROFINET.



Power block – EX9-PE1-X15/X22/X23/X24 Series



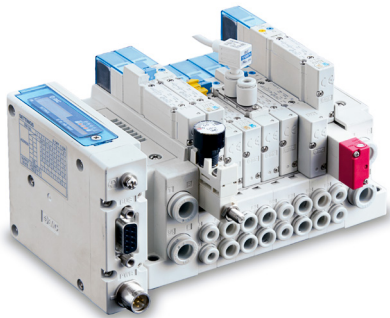
- Possible to control different areas of the same manifold by separate-system power supplies
- Compatible protocols: PROFINET.



5 port solenoid valve – SY Series



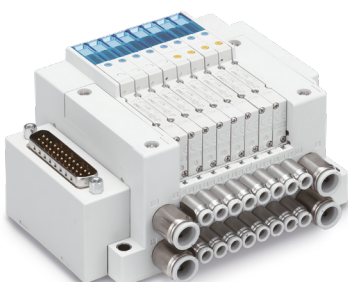
- Easy detection and troubleshooting, thus facilitating efficient and error-free manufacturing
- The most versatile, all-purpose. Easy to expand and replace, hot swap or vacuum and release in a single unit, some of the multiple options for unbeatable flexibility in design
- Possible to optimise the air consumption by mixed size mounting.



Compact 5 port solenoid valve – JSY Series



- The thinnest valve width that adapts to the specific needs by flexible piping and any electrical connection
- Power-saving circuit for minimised power consumption
- Non plug-in type available.



High-precision digital pressure switch – ISE7□(G), ZSE20□, ISE20□ Series



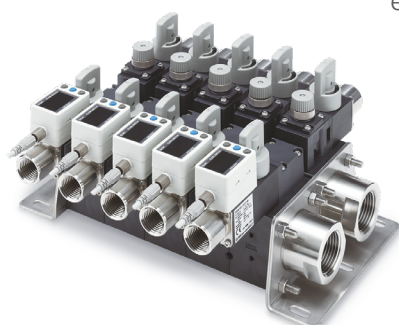
- IO-Link solution for sensing pressure & vacuum in air and general fluids
- With ISE7□(G), ensure good visibility anywhere thanks to the angled display and the rotation mechanism available after installation of this sensor
- Simultaneously displaying two items, ZSE20□ & ISE20□ series with 3-screen display offer an advanced control and monitoring with more information at a glance.

Digital flow switch – PF3W-Z/L, PFMB Series



- PF3W-Z/L series is an IO-Link solution for digitally sensing flow in fluids
- Temperature and flow information can be displayed in the PF3W-Z/L
- PFMB series is a digital flow switch for air, which permits a remote control of the parameters
- Display can be rotated to suit the installation conditions, leading to easy operation and improved visibility
- Flow adjustment valve to reduce piping labour and save on space.

Digital flow switch manifold for fluids – PF3WB/C/S/R Series



- Centralised control and monitoring of the flow and temperature of the different lines of a facility
- Possibility of placing various IO-Link compatible flow switches and other elements together in the same manifold.

Automatic leak detection system – ALDS Series



- Customised integration of a 3-port solenoid valve and a digital flow switch that allows precisely knowing the location and value of each leak in a facility
- Provide maintenance personnel with a detailed report on where the leakages are located without the need to detect individual components
- Operate and detect leakages even when the machine is in operation.

Digital flow monitor – PFG300 Series



- 3-screen and 3-colour display, which allows for a better display of settings
- This digital flow monitor allows monitoring remote lines
- Possibility of changing the settings while checking the measured value.

3-Screen display digital sensor monitor – PSE200A, PSE300A Series



- PSE200A is an IO-Link compatible multi-channel display where up to 4 pressure sensors can be connected, offering a centralised control that saves installation space
- PSE300A is a sensor monitor that is compatible with up to 5 types of SMC sensors: PSE53□, PSE54□, PSE550, PSE57□ and PSE56□
- Possibility of changing the settings while checking the measured value
- Possibility of measuring differential pressure with PSE200A.

Electro-Pneumatic regulator – ITV Series



- IO-Link solution for controlling the air & vacuum pressure in proportion to an electric signal
- Pressure control of air and vacuum pressure in proportion to an electric signal through a fieldbus communication network.

Stand-by valve – VEX-X115 Series



- Combination of a Electro-Pneumatic regulator and regulator valve, compatible with several communication protocols, e.g., IO-Link.
- Optimises air consumption during stops by automatically reducing pressure during short stops, or shuts it off during long ones.

Digital gap checker – ISA3-L Series



- IO-Link solution for detecting the presence of a workpiece
- 3 screens that can display up to 12 different display options.

Actuator position sensor – D-MP Series



- SMC IO-Link solution for continually sensing the position of air cylinders. Internal failure, abnormal internal temperature, outside rated range or reduced magnetic field strength are just some of the data provided
- Flexibility by direct mounting in any of SMC's main cylinders.



Electric actuators

High speed production together with fast format change capabilities provide quick reaction to ever-changing market demands in flexible modular machines. All achievable with SMC's complete range of electric actuators and controllers.

LE Series



With total control of the movement – speed, acceleration, force and position – intermediate controlled stops, multi-axis control, integrated quality control in the handling process, 360° positioning... SMC's electric actuators offer a full of possibilities that allow to perform any movement and control it as suits you best for skipping mistakes and improving the productive quality.

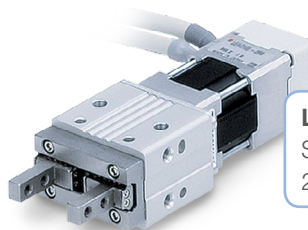
LER – Rotary table

Continuous rotation for position control.



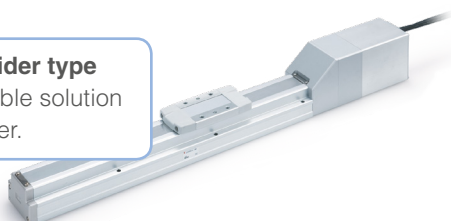
LEH – Electric gripper

Soft and safe handling with 2/3-finger electric grippers.



LEF – Slider type

The suitable solution for transfer.



LEY – Rod type

The suitable solution for pushing & pulling.



Step motor controller – JXC□1 Series



- A single unit for directly operating an electric actuator through a network. IO-Link stepper motor axis control also available
- Compatible protocols: EtherCAT®, PROFINET, DeviceNet™, EtherNet/IP™.

Multi-Axes step motor controller – JXC□2/□3 Series



- Multiplied control of single or multiple axes – up to 4 – with simplified programming
- Compatible protocols: EtherNet/IP™.

AC Servo drivers for electric actuators – LECS, LECY Series



- Smooth position, speed and force control with no need for further adjustments thanks to AC servo motor drivers
- More enhanced safety, productivity and accuracy in highly demanding applications with MECHATROLINK-compatible LECY controllers
- Compatible protocols: MECHATROLINK (LECY), CC-Link and SSCNET III (LECS).

Bar type ionizer – IZT Series



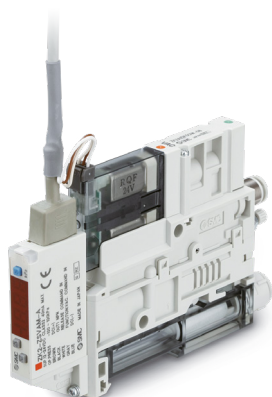
- Up to 4 bars can be controlled and operated with just one controller, detecting bar error and monitoring the contamination of the emitters
- The controller and bar can be installed separately up to 15 m and the air supply port and bar and cable lengths are selectable
- Energy saving type de-ionising cartridge reduces flow rate consumption approximately 50 %.

Chiller – HRS Series



- Remote controllability and machine operation thanks to both serial communication (RS-232C, RS-485) and contact I/Os
- Anticipate any changes by detecting abnormalities quickly before any real damage occurs in the cooling system with up to 41 auto diagnosis points.

Vacuum unit – ZK2 Series



- No need to continuously waste air in vacuum applications by integrating a pressure switch with energy-saving function in the ejector
- The ZK2 vacuum unit cuts off the air supply when the desired vacuum level is reached.

Related products that let make your machines flexible

Vacuum pad – ZP3P, ZP3P-JT Series



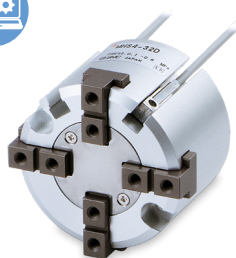
- Blue coloured vacuum pad for packaging applications where the shape of the workpiece changes easily from being lifted
- Ensures adequate handling of uneven, soft, variable or very thin workpieces. With ZP3P-JT Series, 5.5-stage bellows available to adapt to changes in height or angle of flexible packaging.

Magnetic gripper – MHM Series



- Innovative magnet gripper with great reliability and able to transfer many different ferromagnetic workpieces
- It performs optimally in applications where other grippers cannot.

Parallel air gripper, 2/3/4-finger – MHS Series



- These rotary operated grippers in parallel with 2, 3 and 4 fingers and angular style can pick up anything and can be mounted anywhere, thanks to a high degree of mounting flexibility.

Auto hand changing system – MA Series



- When there is a need to use several tools in the same robot application, this product helps with the automatic exchange of robot hand tools, without the need for additional adjustments
- Usable in Flexible Manufacturing Systems (FMS).

For further information, please contact our experts

3 Position cylinder and rotary table – RZQ, MSZ Series



RZQ



MSZ

- An extra position added, only by using compressed air, so as to facilitate the selection and separation of workpieces
- Eliminate unnecessary expenses by easily eliminating non-conforming detected workpieces.



Speed controllers – AS-FS, AS-R, AS-Q, JAS Series



AS-FS



AS-R, AS-Q



JAS

- Simplify any change in components and detect possible manipulations carried out at a later date, allowing for fault detection thus reducing machine preparation times thanks to the indicator window and gradual scale of the AS-FS
- Possible to reduce the pressure at non-productive cycles by introducing the AS-R/AS-Q speed controllers; use them to apply the multiple pressure system concept to your cylinders reducing the supply pressure at the return stroke.
- For confined or narrow spaces, thanks to the optimised design of the JAS, it is easy to install and easy to operate, having a needle adjustment by manual push-lock or with a flat blade screwdriver



Fittings & tubing – TU, KQ2 Series



TU



KQ2

- Easy identification of materials and connections with SMC coloured technical tubing and fittings, a simple standardisation that considerably eases the installation, avoids malfunctioning in machines due to connection errors and facilitates the changes of machine design.





Expertise – Passion – Automation

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