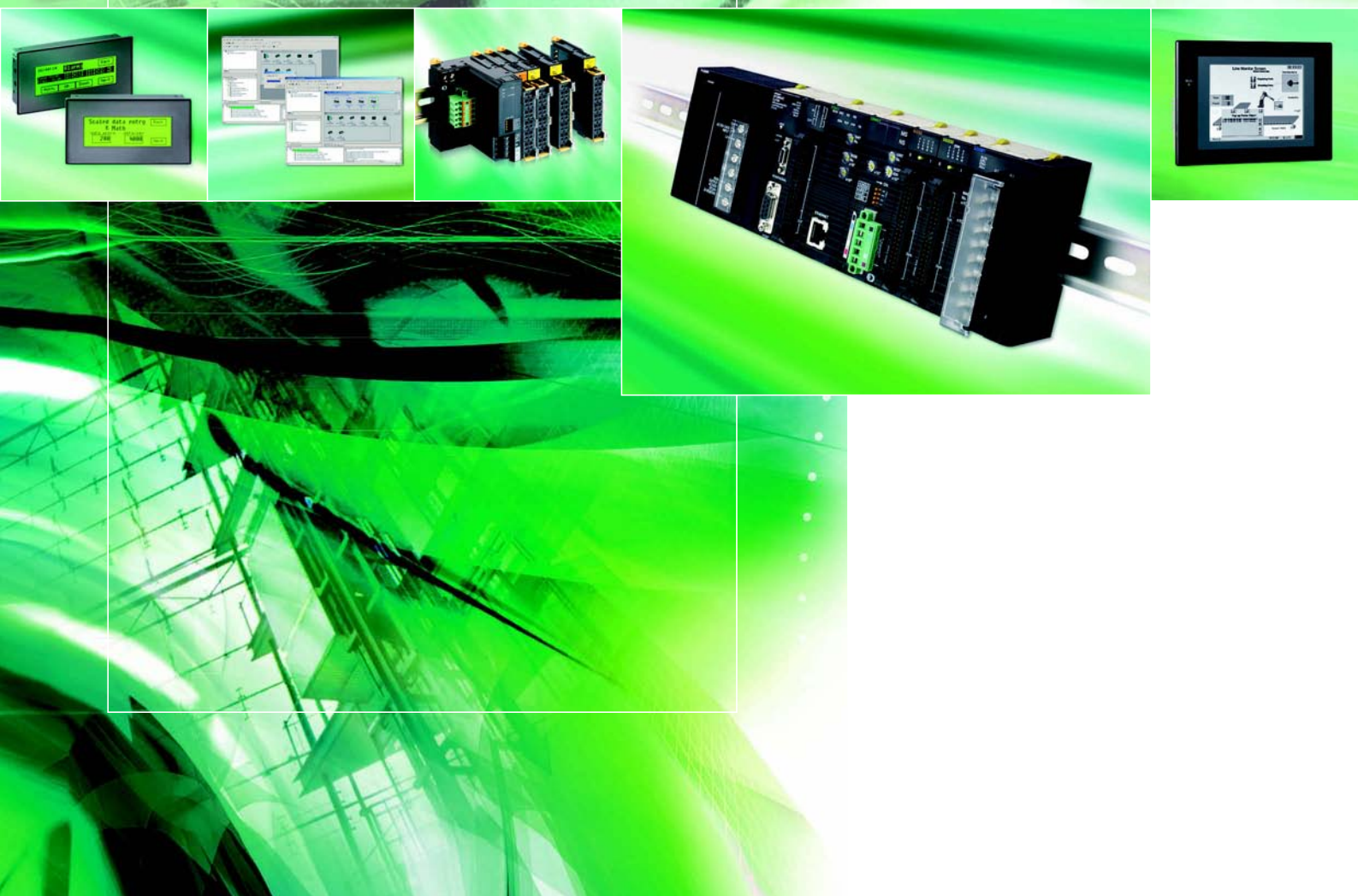


GENERAL CATALOGUE 2006/2007

Automation systems



realizing

Advanced Industrial Automation

OMRON



GENERAL CATALOGUE 2006/2007

Automation systems

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Automation systems

Just create...

This catalog includes a complete line of Industrial Automation Systems that can be used individually or combined with other products from Omron's Smart Platform concept. The products offered are designed to deliver high performance and total reliability with just one goal: to ensure YOUR production never stops.

Please be aware that the attached CD-ROM contains information on some additional product families, not included in the printed version of this catalog. In addition you can find the latest product information on www.omron-industrial.com.



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Omron – a global corporation

...right on your doorstep



2

Omron Corporation

Omron Industrial Automation is a leading manufacturer of technologically advanced industrial automation products and worldwide supplier of application expertise. It is part of the global Omron Corporation. Pioneering technology Omron has developed into a \$5 billion global manufacturing company in sensing and control.

Omron continues to make significant contributions in a wide variety of fields such as industrial automation, electronic and automotive components, and healthcare. Omron Industrial Automation technologies can be found in factories and machines all over the world. Our solutions continue to be flexible and innovative, but our standards remain rigid: never stop, never fail, just create!

Omron Industrial Automation Europe

In Europe we have maintained a leading position in machine and industrial automation for over 30 years. Our infrastructure is designed to think globally while acting locally. From sales, application knowledge and support to R&D and customised production, we can support your needs wherever you are located, and through every step of your manufacturing process.

You'll find Omron's expertise in control systems, motion & drives, sensing, safety and control components.

- 50 years in industrial automation
- Over 24,000 employees
- Support in every European country
- Over 1,800 employees in 18 European countries
- 8% of turnover invested in R&D
- More than 200,000 products
- More than 6,950 patents registered to date

Application support

As an Omron customer you have unprecedented support from our application engineers, who can advise you on-site anywhere in Europe. We can carry out tests on your design on-site or demonstrate a new product without disturbing or halting your production process.



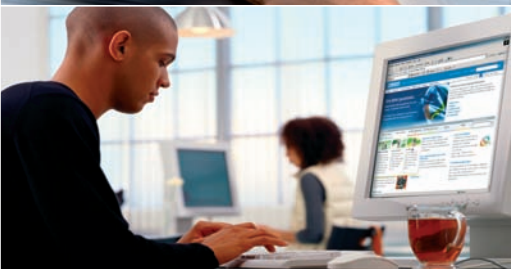
“From the moment you contact Omron you get direct access to our application expertise, wherever and whenever you need it...”

3



◀ European manufacturing

Omron has manufacturing sites in s'Hertogenbosch, the Netherlands and Nufringen, Germany where, in addition to our standard product offering, we can provide fast and flexible customised solutions using on-site R&D facilities and expertise. Both factories meet very strict quality assurance standards, and are the forefront of meeting global environmental standards. Omron actively welcomes people to come and visit these facilities.



◀ Online support

Omron's web-site is designed to provide fast, no-nonsense support, enabling you to quickly find the latest information on manuals, data sheets and brochures, read about our latest product releases, and check out the most frequently asked questions. You can also download our latest software versions or patch upgrades along with 2-D and 3-D CAD drawings. All the support you need is available on www.omron-industrial.com.



◀ European Repair Centre

Omron has set up a special repair service with DHL that enables your product to be picked up, repaired and returned within 5 days. This repair service is totally free for products under Omron's warranty conditions, and includes a direct pick up and delivery at your site. You can get more information on this service at www.repair.europe.omron.com.

Omron's support – every step along the way

MARKET PRESSURE

Modular concepts for the implementation of tailor-made machine solutions at moderate costs. Short change-over times to reduce stand-still of the production-line. Remote diagnostics to both reduce travelling costs & improve response time. Omron offers you the possibility to handle each of these requirements better than today.

Improve at no risk

SUPPORT

Being one of the biggest players in industrial automation globally, Omron has a wide spread network of own sales & support offices all around the world. Within the European Union we offer a five days repair service. Thanks to the One Connection principle of Omron's Smart Platform you can call in on any point of the system, and troubleshoot any device on it remotely.

At your (customers) doorstep

YOUR MACHINE

MAINTENANCE

Effective maintenance reduces the overall operation costs. Omron supports this a.o. with software modules as it's pre-made Smart Active Parts. These provide diagnostic information on a device or PLC module in the network. For instance the power consumption of a drive is monitored, or the switching of a relay is counted. The tag sharing as Omron offers within CX-One makes it very easy to understand for maintenance engineers what of such info is where in the system.

One software



DESIGN

With its wide portfolio Omron can offer you the right (product) solution for almost any application, and if there is still something special missing Omron offers connectivity to almost any Open Network in the market. CX-Simulator – standard part of our CX-One engineering tool – enables (pre)testing your project without the need of the hardware being present. And last but not least, during your design over 600 application and sales engineers in Europe provide local advice on how to utilize the Omron products in your application.

One minute

COMMISSIONING

CX-One's network overview provides an easy view of the machine. Pre-made software modules do not only inform you about the network status but also allow a quick overview of alarms per device. The One Connection in Omron's Smart Platform concept enables you to access any device on any network, from any point in the machine without the need to first duplicate the information in the PLC memory.

One connection

OPERATION

Omron's products meet very strict quality assurance standards which day after day is demonstrated by their high availability. The excellent performance of our products is proven by products as the CJ1 PLC. Not a single Control System on the market offers so many functions, to be performed at such a high speed, in such a small housing. But also Omron products as the CompoNet fieldbus that achieves a cycle time of 0.6 (!) msec.

Never stop, never fail

Smart Platform concept

One software – One connection – One minute



6

Total machine integration with the robustness offered by PLCs and the flexibility of the IPC. What was a dream in the eighties, a vision in the nineties is now materialising into reality.

Enabling complete machine and plant automation from one single platform without having to worry about field-buses, integration of various software and above all without being locked with one dominant supplier. FDT/DTM, messaging across networks and Internet are the main contributors.

Our aim is to minimize the time and effort you spend in automation and focus your resources in creativity. Hence our motto JUST CREATE!

The Smart Platform concept is built around three major advantages for the user:

- One software
- One connection
- One minute



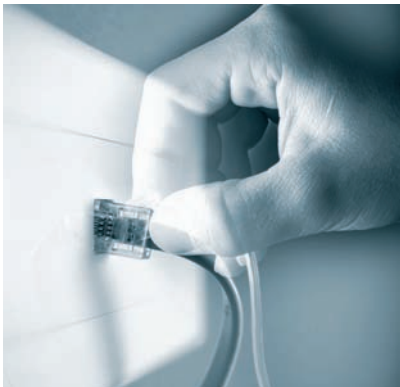
Easy programming and configuration with Omron's CX-One software.

For a demonstration and to order your 30 days' trial version for free please visit www.smartplatform.info



One software

CX-One allows you to control, visualise, position, detect and regulate from one automation suite.



One connection

No matter what device, what fieldbus and what task you are performing, one connection is all you need to give you full access to your machine.



One minute

Drag & drop, plug and work in minutes to control, visualise and maintain your machine.

7

... just create

Why Smart Platform?

Smart Platform can help you increase the flexibility and efficiency of your machines or production lines. It provides:

- A single software environment for your machine covering sensing, regulation, control, motion, and visualisation.
- Easy drag & drop object-based programming and configuration of the complete system.
- Communications and architecture that is network independent.
- Distributed intelligent devices that are self-reporting and self-maintaining to reduce downtime and identify the source of production problems.



Software news

CX-One

MAIN FEATURES AND BENEFITS

- One software to support programming PLCs & HMIs, networks, Motion & Drive, Regulation & Switching and Sensors
- One installation and license number for all software
- Common look-&-feel for configuration of all devices
- Web registration offers free upgrade, free libraries, FAQ and help



8

One software for your complete machine

1. One software

Omron introduces CX-One, a single programming and configuration environment that enables the user to build, configure and program networks, PLCs, HMIs, motion control systems, drives, temperature controllers and sensors. The result of a single software is to reduce complexity of the configuration and allow automation systems to be programmed or configured with minimal training.

2. One connection

From a single connection point either locally, through networks or from a modem connection the Omron 'Smart Platform' devices on your machine can be programmed or parameterised. This allows remote access or servicing of your complete machine to be-

come a reality. The same transparent communications architecture also allows Omron devices to easily communicate together, passing and sharing information and enabling more effective modular machine design.

3. One minute

'Plug & Work' functionality is achievable through Omron's function block library, device profiles and SMART Active Parts, which can be simply 'drag & drop'-configured in contrast to conventional programming. The SMART Active Parts are pre-defined electronic objects of field devices (e.g. 'read actual speed' of an inverter, view a scene from a vision sensor, represent a temperature controller etc.) that can be dragged and dropped into the HMI screen.

CX-Designer



New but familiar

- Tag sharing between PLC and HMI: Drag & drop or copy/paste from excel.
- Very easy re-use of projects and screens.
- Windows look and feel:
Easy selection, Docking of windows etc.
- Same interface as rest of CX-ONE:
The same icons/dialogs for downloading etc.
- Beautiful and comprehensive project view: Customisable workspace with toolbars and property window.
- Completely new, but backwards compatible:
New property window but also the “old-fashioned-double-click” property dialog from NS-Designer.

CX-PROFIBUS



Open access to device intelligence

- Advanced configuration tool for PROFIBUS networks that uses FDT/DTM(*) technology.
- Improved support for more advanced devices, either Omron or third party.
- Integrated file saving within CX-One.
- Supports Omron messaging, hence allows full integration of PROFIBUS in Omron’s Smart Platform.
- The PROFIBUS-DP network topology and system characteristics are stored in the Omron PROFIBUS master unit.
- Configuration can be done remotely, via other networks as Ethernet or ControllerLink.

* FDT/DTM stands for Field Device Tool / Device Type Manager

CX-Programmer



Easy programming with powerful results

- Integrated into CX-One, Omron’s universal software suite.
- Any automation device can now be accessed for configuration, programming, monitoring and maintenance.
- All through a single connection, on any network layer.
- Auto-connect through USB or serial links.
- Enhanced security: protect your proprietary know-how.
- Easy setup screens for all PLC units.
- PLC simulation tools included: test before you even download!

CX-Drive



One tool for inverters and servos

- Covers the complete range of Omron Yaskawa inverters and servos.
- Full access to all parameters.
- 3 different operator levels available.
- Easy overview of parameters includes filters to show values.
- Graphical overviews are available to further assist with configuration of some more detailed parameters.
- CX-Drive shares the common CX-Server communications middleware functionality from CX-One.
- But is also available as stand-alone tool.

PLC news

CJ1 screwless I/O

MAIN FEATURES AND BENEFITS

- Drastically reduces wiring time
- Accepts a wide range of wiring gauges
- Easy to attach and detach; no tools required
- Easy to test signals, even while wiring is connected
- Construction prevents over-stressing of clamping spring
- Interchangeable with existing CJ1 screw terminals
- Safe – no metal parts can be touched by fingers



Screwless – the reliable connection!

Versatile and reliable

Omron's screwless I/O terminals accept a wide range of wires, solid or stranded, with or without ferrules, from 0.08 to 1.5 mm². The common power supply terminals even accept two wires each, for easier power distribution. Because the spring-loaded clamps secure the wires in their sockets, the wiring will not come loose through shock or vibration. This eliminates the routine task of re-tightening screws during regular inspection. During testing and commissioning, the spring clamps can be contacted to verify the signal levels. Yet the terminal is always safe to touch, whether wires are inserted or not.

Easy to use

Individual wires are easy to attach and detach from the terminalblock, simply by inserting a screwdriver in the release hole. Traditional screw terminals must be tightened at the correct torque; with Omron's screwless I/O, the contact pressure is always right. A special insert in our clamping spring protects it from being overstressed, making sure the spring always stays in shape. The new screwless I/O terminal is interchangeable with existing connectors, and can be used on any existing CJ1 unit that uses the classic 18-point screw terminal block. And they are just as convenient to attach or detach; no tools required!

CJ1-built-in-Ethernet



Ethernet for all

Omron's smallest modular PLC offers an economical way to connect to 100 Mbit/s Ethernet networks for seamless and smart distributed control. Communication over Industrial Ethernet networks has so far been restricted to high-end PLC models. Omron lowers the threshold for truly distributed control using 100 Mbit/s Ethernet with the introduction of 3 new CPU models in the CJ1M-range. The 100BASE-TX Ethernet interface integrated in the new CJ1M CPUs adds a high-speed, reliable network connection to the existing 2 serial ports. You can connect the PLC to Ethernet networks, whilst retaining the possibility to make serial data links to existing peripheral devices.

MAIN FEATURES AND BENEFITS

- **Speed and Transparency**
Up to 255 nodes can be linked using secure connection-based TCP/IP data communication with Omron's proven industrial FINS protocol on Ethernet
- **Easy Access and Setup**
The FTP server functions provide simple access to data stored on a standard CompactFlash Card which can be used in any CJ1 CPU

CJ1-CTL



Get the right position

A compact and powerful new counter unit provides easy connection of four incremental encoders to any CJ1 series PLC.

Now you can boost the functionality and performance of your CJ1 PLC with the CJ1W-CTL41-E four-channel counter unit. Able to process pulse signals up to 100kHz, the CTL41-E allows count frequencies up to 400,000 counts per second on all four channels simultaneously. And by internally monitoring the counter values against 32 comparison values, the CTL41-E can also issue interrupts to the CPU for sub-millisecond response in critical applications. With a single CJ1 able to control up to 24 units, the CTL41-E can turn one of the world's most compact PLCs into one of the world's most powerful and flexible machine control systems.

MAIN FEATURES AND BENEFITS

- 4 encoder inputs
- 100 kHz pulse frequency
- 32-bit counter values
- Linear & circular mode
- 32 comparison values
- Interrupts to PLC CPU
- On-the-fly reconfiguration
- Easy wiring

HMI news

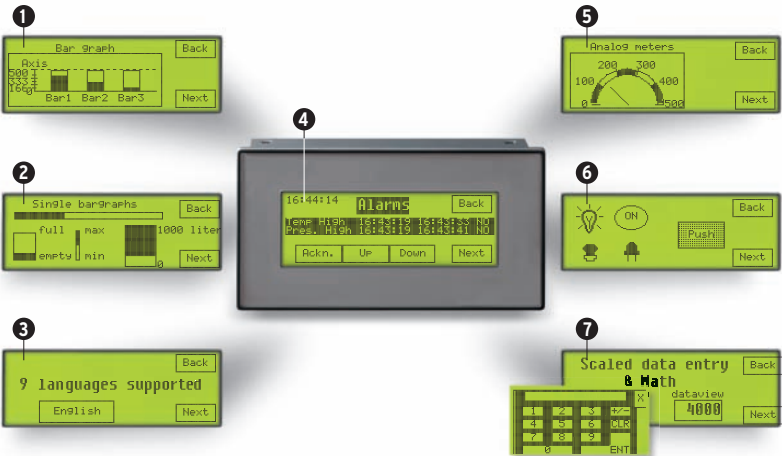
NT3S



Small, Powerful, Flexible, Economic...NT3S

The Omron NT3S terminal is designed to replace mechanical pushbuttons and lamps or text based function key terminals by offering extra functionality, without increasing overall costs.

The NT3S-series offers powerful, free programmable functionality on a small touch screen based user interface. You can create your own “function keys” wherever you want them on your screen and at the same time make use of text in multiple languages. You can also use comprehensive graphics to monitor your application. This product is a step up from our NT2S/NT11S function key series and a step up to our more intelligent NS-series.



MAIN FEATURES AND BENEFITS

- 4.1“ monochrome STN LCD with LED backlight
- Maximum of two universal (RS232/485/422) serial ports to connect multiple devices with different protocols at the same time
- Drivers for most PLCs, Inverters and Servo Controllers
- Support for floating point data
- Real-time and historical alarms (historical alarms in RTC version only)
- Trend graph for defined tags (RTC models only)
- Saves recipes data in non-volatile memory
- Windows® based programming software NT-XS for free!
- IP65 design

- 1 2 On the NT3S you can show different kind of bar graphs. Single bar graphs can be filled in different directions and multiple bar graphs with legend can easily be created with a simple wizard.
- 3 Up to nine languages can be used in the NT3S. This means you can for instance make the text buttons variable. This way you can design one project with different languages, so you can use it in different countries.
- 4 You can monitor up to 256 alarms in 16 different groups with the NT3S. Alarms can be shown with text, time, date and status. Acknowledgement can be prohibited by password.
- 5 Analogue meters can also monitor values of connected devices. You can set the range, angle, and “colours” to your wish.
- 6 You can create your own buttons and lamps by making use of bitmaps or by choosing one from the library. You can set the “colour”, filling and label.
- 7 Showing and entering data is easy with the NT3S. Data can be shown in the desired format (HEX, BCD etc.). Entering data is performed with a pop-up keypad.

NS5M / NS5



MAIN FEATURES AND BENEFITS

- 5.7" screen
- 320 x 240 pixels resolution
- The highest amount of memory in the market
- Easy integration with Omron PLCs and Field Devices by our Smart Active Parts

NS5-Monochrome - Less colour, same performance

With NS5-Monochrome, Omron is addressing customer demands for more performance without increasing costs for machines. It offers the same high quality and the same features as the rest of the NS-series, ranging from 5.7" to 12.1". We offer you the highest amount of memory (20 MB in all 5.7" screens) in the market, so you can create beautiful applications with many bitmaps and you can re-use applications throughout the complete range.

OTHER FEATURES OF THE NS5 MONOCHROME ARE:

- USB connection for downloading
- Optional Ethernet connection
- Compact Flash slot
- Powerful data log/trending function

NS5 TFT

The NS5 TFT is adding even more clarity and visibility to our 5.7 range of screens. With a field of view of 70 degrees left and right an operator on a machine can read it even when looking at the screen from an angle. With the 30,768 colours you can make the most beautiful applications to make your machine stand out from the rest.

OTHER FEATURES OF THE NS5 ARE:

- Long-life backlight of minimal 75,000 hours (less maintenance costs)
- The highest amount of memory in the market (applications are compatible throughout the NS range)

A true machine management tool



Working with SMART Active Parts is easy. SAPs are pre-programmed visualisation software modules with embedded communication code. They allow a complete machine to be configured, commissioned, operated and maintained via the HMI. Just Drag & Drop a SAP into your project from the library in CX-Designer and enter the address of the device it should be linked to. SAPs allow, for instance, a user to monitor all slaves of a network master on one single screen, read and write parameters of connected inverters without using the inverter console, or view PLC alarms in simple text, all without having to program a single line of communication code. This saves a lot of development time, and at the same time allows more advanced features to be included that, for instance, reduce down-time or simplify machine set-up. That's why we call the NS a true machine management tool.

Remote I/O news

DeviceNet safety



MAIN FEATURES AND BENEFITS

- Open communication standard.
- Fast and easy installation
- Predefined and certified function blocks
- Detachable cage clamp terminals
- I/O-Modules support standard and safety mode on one module
- Predictive maintenance and self diagnosis
- Certified for applications up to safety category 4 (EN 954-1) and SIL 3 (IEC 61508)

DeviceNet safety offers more than a safe network

As a founding member of the DeviceNet organisation, and specialist for machine safety, Omron is one of the few companies with expertise to combine innovative bus technology and safety to a seamless solution up to safety category 4 (EN 954-1) and SIL 3 (IEC 61508).

Unique features of the DeviceNet Safety products are:

- Test pulse outputs to ensure crosstalk and short circuit detection.
- Mixed mode operation of the DeviceNet Safety Terminals. All in- and outputs can flexibly be assigned to the safety or standard part of the control system. If they are used for safety, the Safety Network Controller ensures system integrity. Smart slave functions like operation counters and monitoring of ON-time or operation time are fully supported.

14

WT30



MAIN FEATURES AND BENEFITS

- One master modem – multiple slave modems
- Relay functionality – communication distance up to 240 meters
- All-in-one unit available with a wireless modem and 16 points digital terminal
- Roaming: The master modem automatically selects the radio frequency and automatically changes the communication route for moving objects.

The ultimate flexibility

Within Industrial Automation there are still many cabling issues to be solved, like communication with moving equipment, retrofitting networking on running devices and leaping over an obstacle in a walkway, roadway or

waterway. Now Omron provides a simple and reliable solution to solve these issues, the WT30, a serie of wireless I/O products.

Smart Slice



MAIN FEATURES AND BENEFITS

- Modular remote I/O with up to 64 I/O units per station
- DeviceNet and PROFIBUS-DP interfaces
- Intelligent functions in all units reduce PLC programming
- 3-piece construction for easy installation and maintenance
- Toolless push-in connection technology

Smart functions you can rely on

SmartSlice: Intelligence at I/O level

In automated production, high availability is absolutely critical to stay efficient. Smart control systems that can help your process stay up are always a worthwhile investment. The latest innovation from Omron is SmartSlice. This modular, remote I/O system is full of patented, smart features – making it the most intelligent and easy-to-use remote I/O system currently available. SmartSlice will allow you to minimise engineering, troubleshooting and maintenance in your machine, line or plant, resulting in significantly reduced downtime.

Maintenance data logging minimises downtime

All SmartSlice I/O units autonomously collect and store the information that will help you plan machine maintenance. Timely detection of reduced performance will minimise unplanned downtime and keep machine performance fast and reliable.

Each unit remembers its last maintenance date: maintenance personnel can check per unit if there have been any replacements or repairs. A descriptive comment can be entered per node, per unit, even per I/O point.

This can help you troubleshoot a machine without having to know PLC-internal tag names or programs.

Early-warning system prevents breakdowns

Every SmartSlice unit has its own built-in early-warning functions, enabling you to schedule maintenance and prevent breakdowns. Warnings include:

- Supply voltage out of safe range – e.g. due to damaged cable or poor connection.
- Preset maintenance interval exceeded – which can be a time interval or a target number of operations, to indicate that an inspection of (electro-)mechanical parts is required.
- Maximum allowed delay between two I/O signals is exceeded – to indicate that wear or lack of lubrication is causing a machine to work slower than intended.

An integral component of Smart Platform

The SmartSlice remote I/O series was developed as a part of Omron's Smart Platform. Designed to make machine automation easy, Smart Platform provides seamless, drag-and-drop integration of all automation components in your machine. From sensor to controller, from HMI to drive, all devices are accessible through one connection using a single software suite, CX-One. Moreover, built-in distributed intelligence in Omron devices means that you spend less time programming and troubleshooting.

Case studies

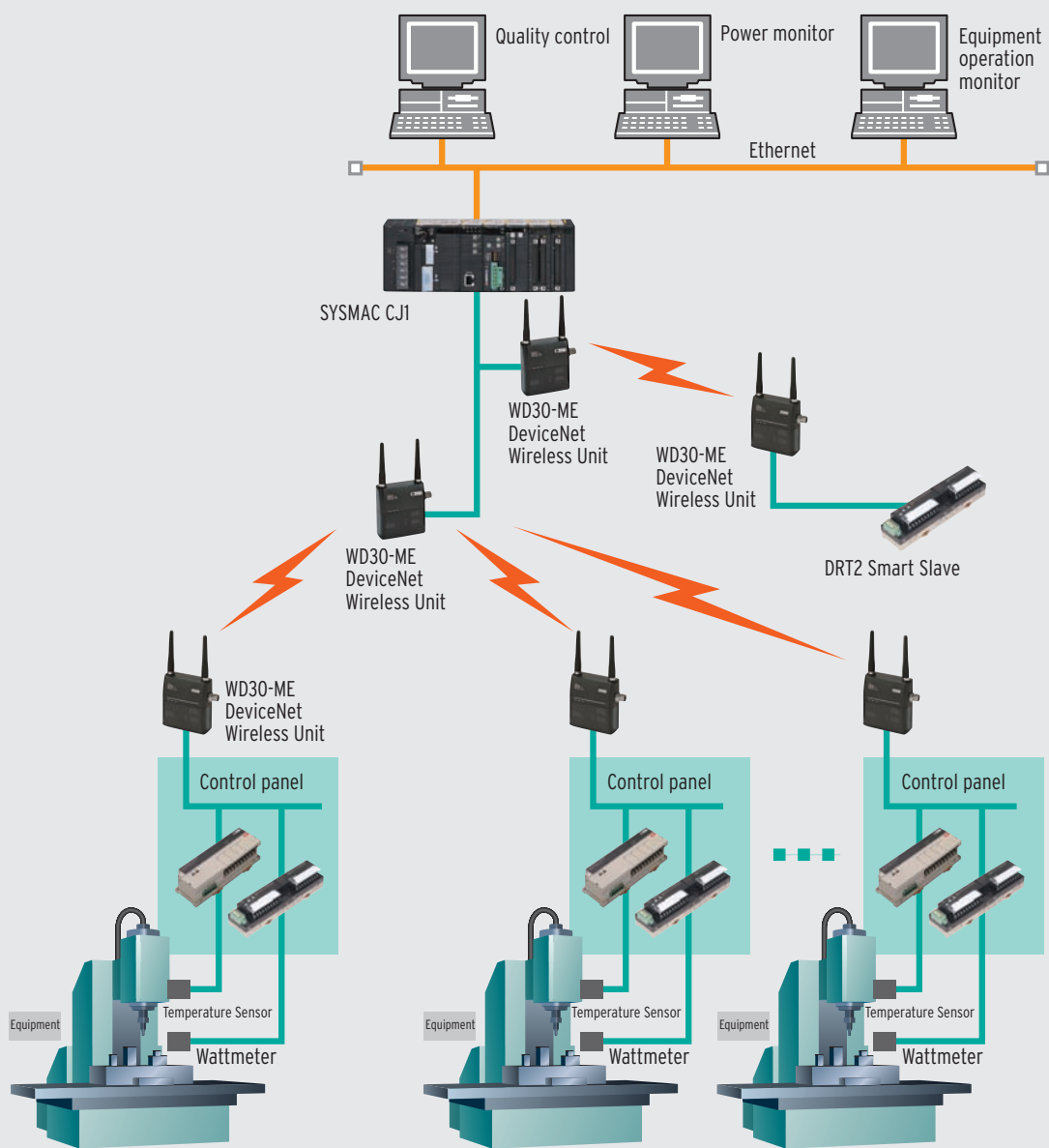


Smart factory at work

The future is wireless

Wireless communication allows lower maintenance, quick production line set-up and space saving.

In contrast with a regular wireless system that can be used for only one purpose, such as collecting production information, the Device-Net Wireless System can be used for multiple purposes.



Application examples

Vision meets motion in a flexible assembly line

Space, size and development time is cut by 30% by integrating vision and motion.

By using a HMI equipped with a Video Board, the HMI can also be used to set-up and monitor for the Visual Inspection System. This solution simultaneously helps reduce equipment costs and saves space.

In addition, the motion controller parameters can be set, edited, and stored very easily from the HMI's touch panel.



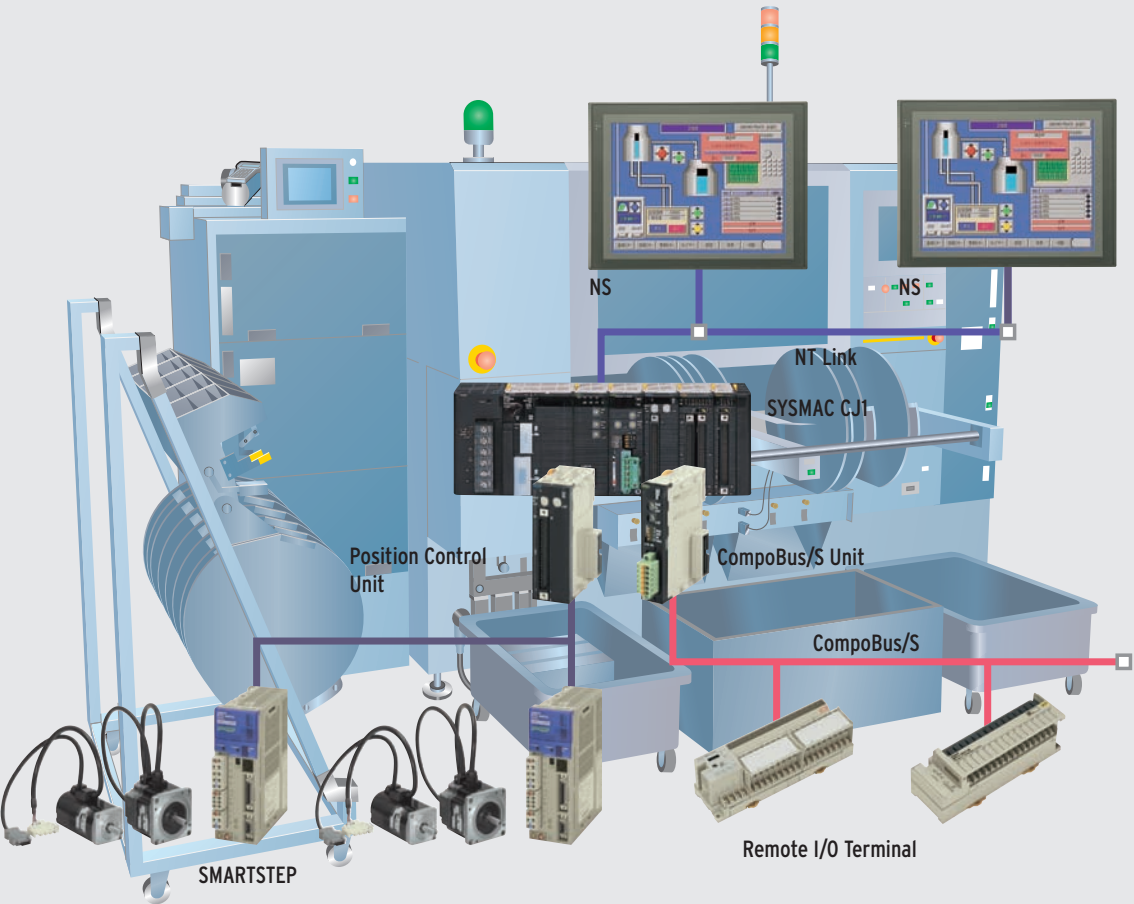
The manufacturing speed is increased significantly by using a PLC, Position Control Unit, and Visual Inspection System from Omron.

Moulding machine

When fast and precise operation is key, a total solution from Omron offers full satisfaction. Fast operation, accurate positioning, easy connectivity and complete machine management through the NS HMI family.

For equipment that requires an extremely fast cycle time Omron offers PLC that achieve cycle times as fast as 1 ms.

If Omrons NS-series Programmable Terminals are used, there is no delay in operation due the the high performance communications.



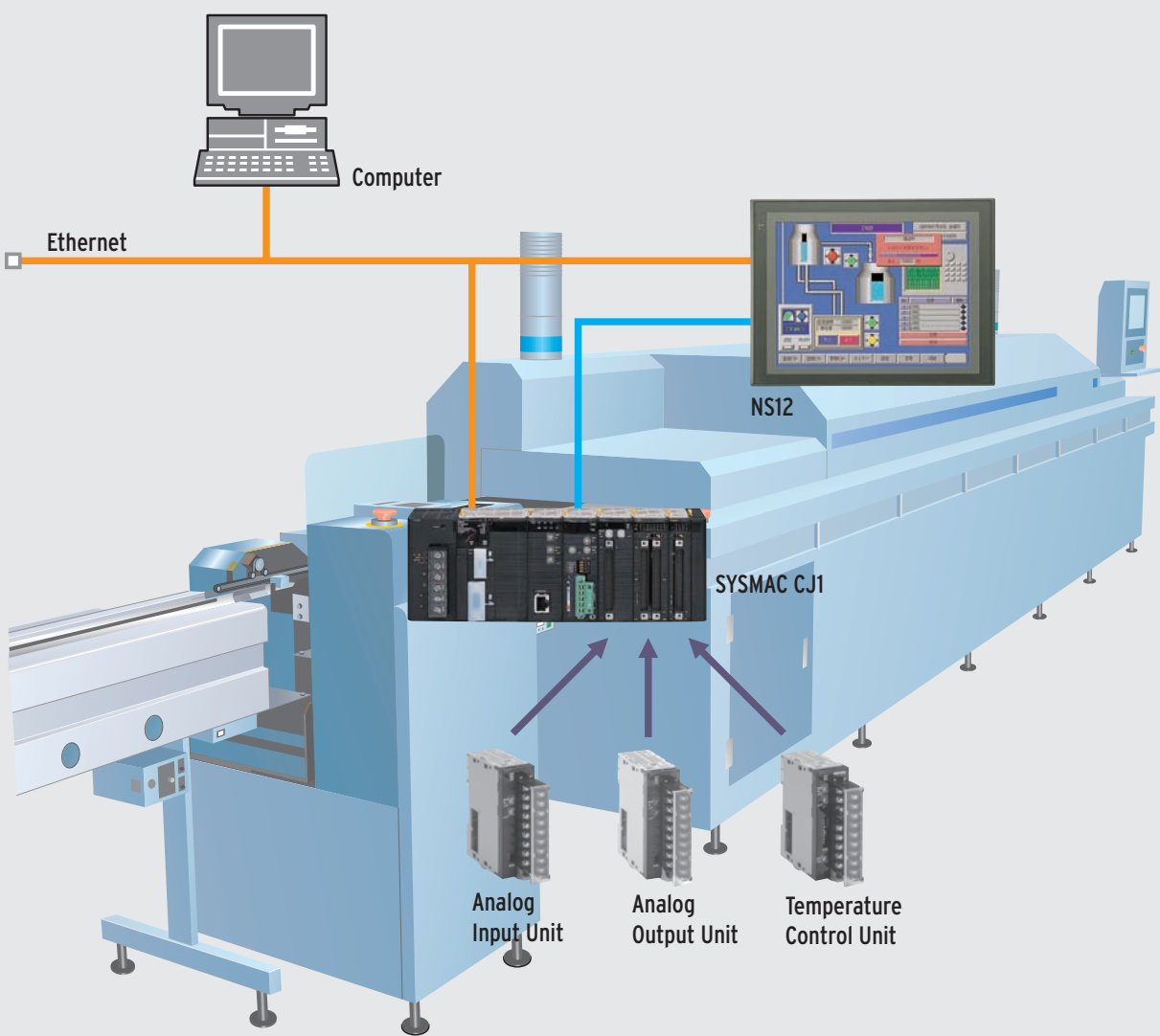
The high-speed I/O bus Compobus/S has a communication cycle of an astonishingly fast 0.5ms. As a result the same respons times can be achieved as if the I/O units were mounted directly on the PLC. Achieveing true remote I/O.

Application examples

Total management of solder reflow machine by NS terminals

NS handles recipes via its memory card and communication via Ethernet port.

Store recipe data in the PT's memory card. The memory card data can be accessed through Ethernet.

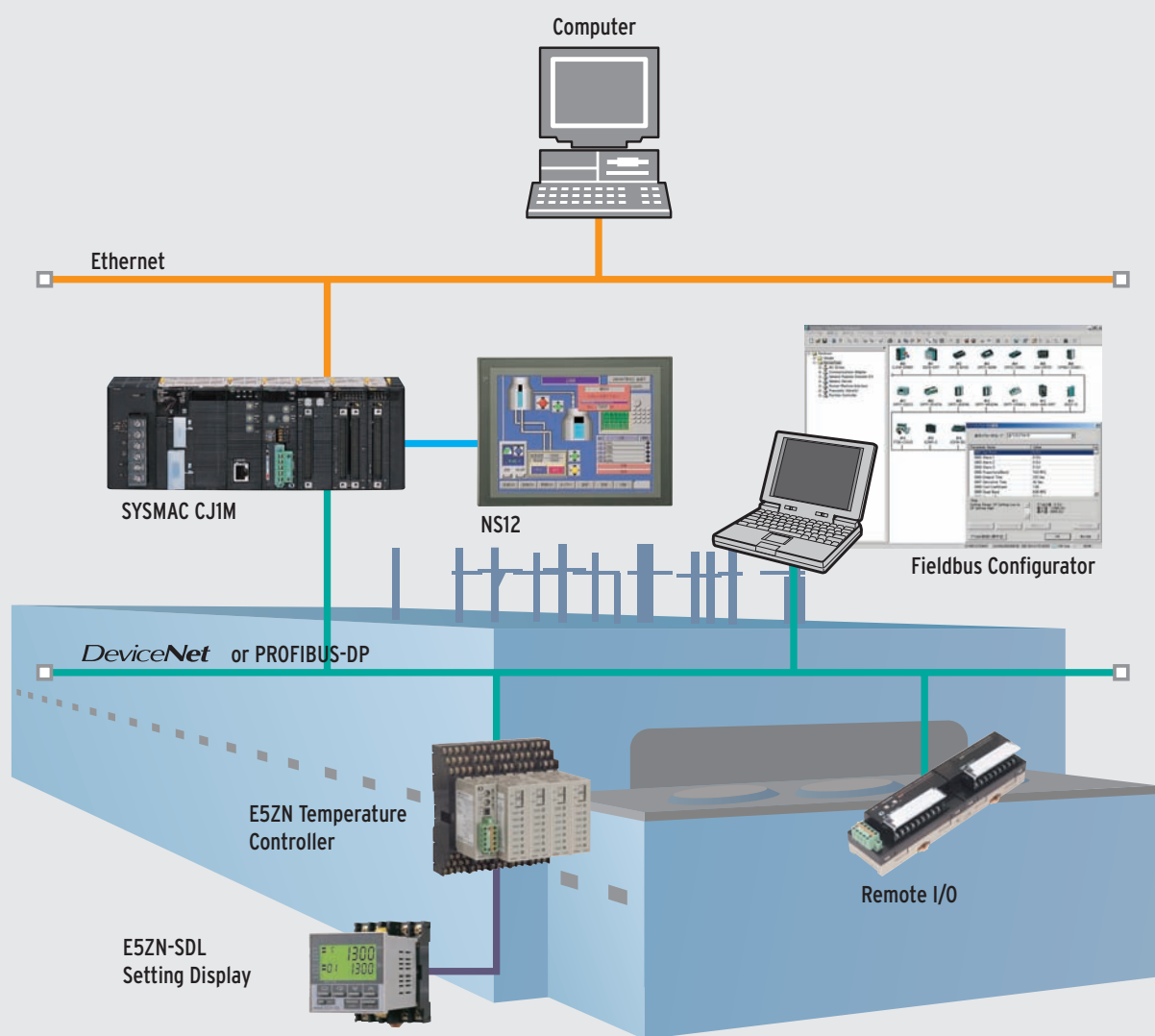


▲ With 4 channels/Unit, the CJ1-series Temperature Control Unit can support multi-point control and save space.

Cut cabling costs in industrial furnaces

Start-up costs for large-scale temperature control can be substantially reduced with networked temperature controllers

Decentralised temperature controllers (E5ZN) on DeviceNet (or PROFIBUS DP) help minimising machine wiring and reduce programming effort in the PLC. Of course complete machine management is ensured through the NS terminals.



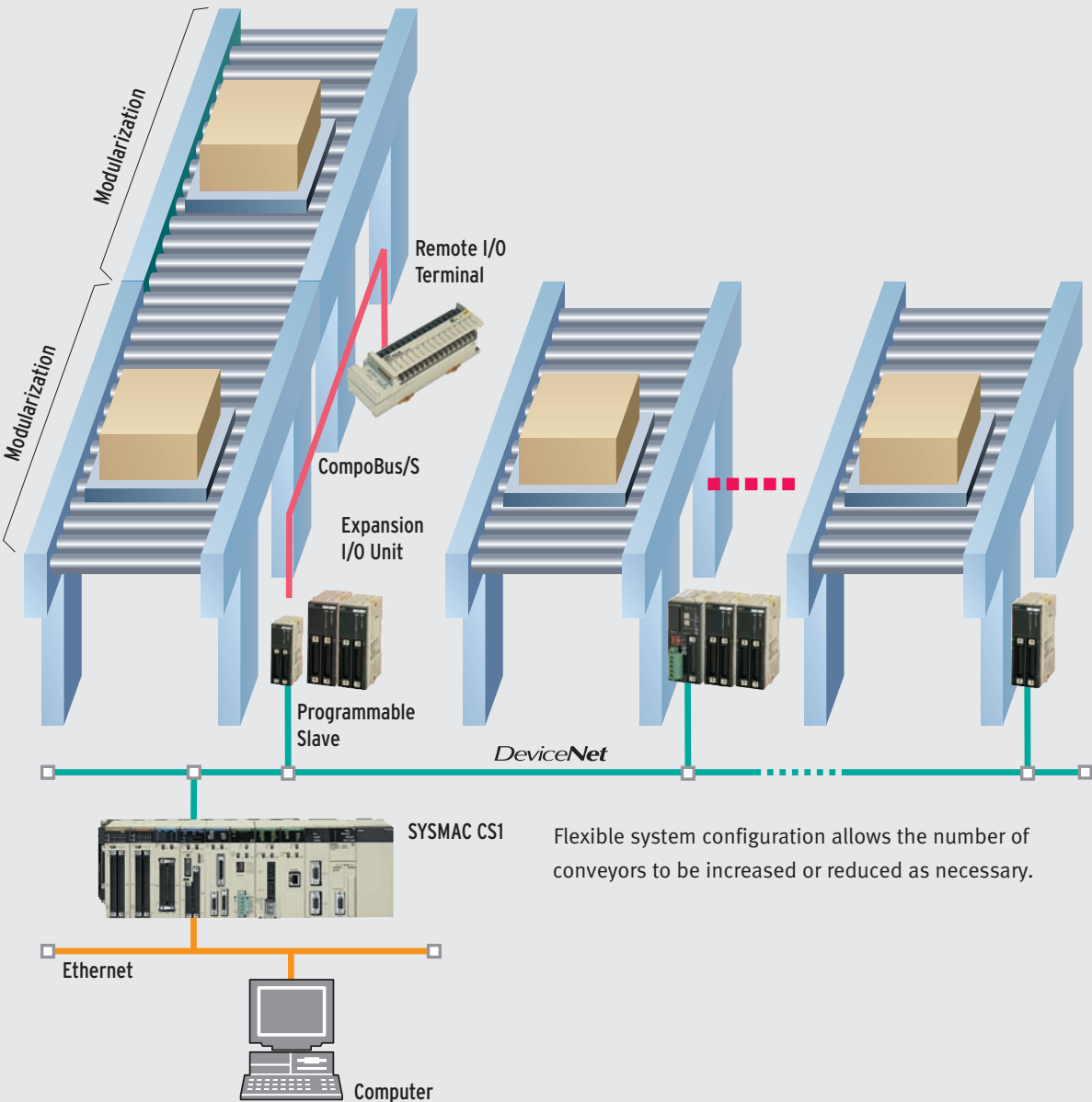
- ▲ By installing a networked Temperature Control Unit close to the measurement point (such as a thermocouple), a compensating conductor is unnecessary.
- ▲ Verifying the printed article information in a high-speed packaging line.

Application examples

Modular PLC helps slicing bulky conveyor systems

A compact shape, integrated communication functions and a wide range of functional modules help you create smart modular machines.

A distributed control architecture. The small PLCs can be used to slice the conveyor system in modules that can be reused.



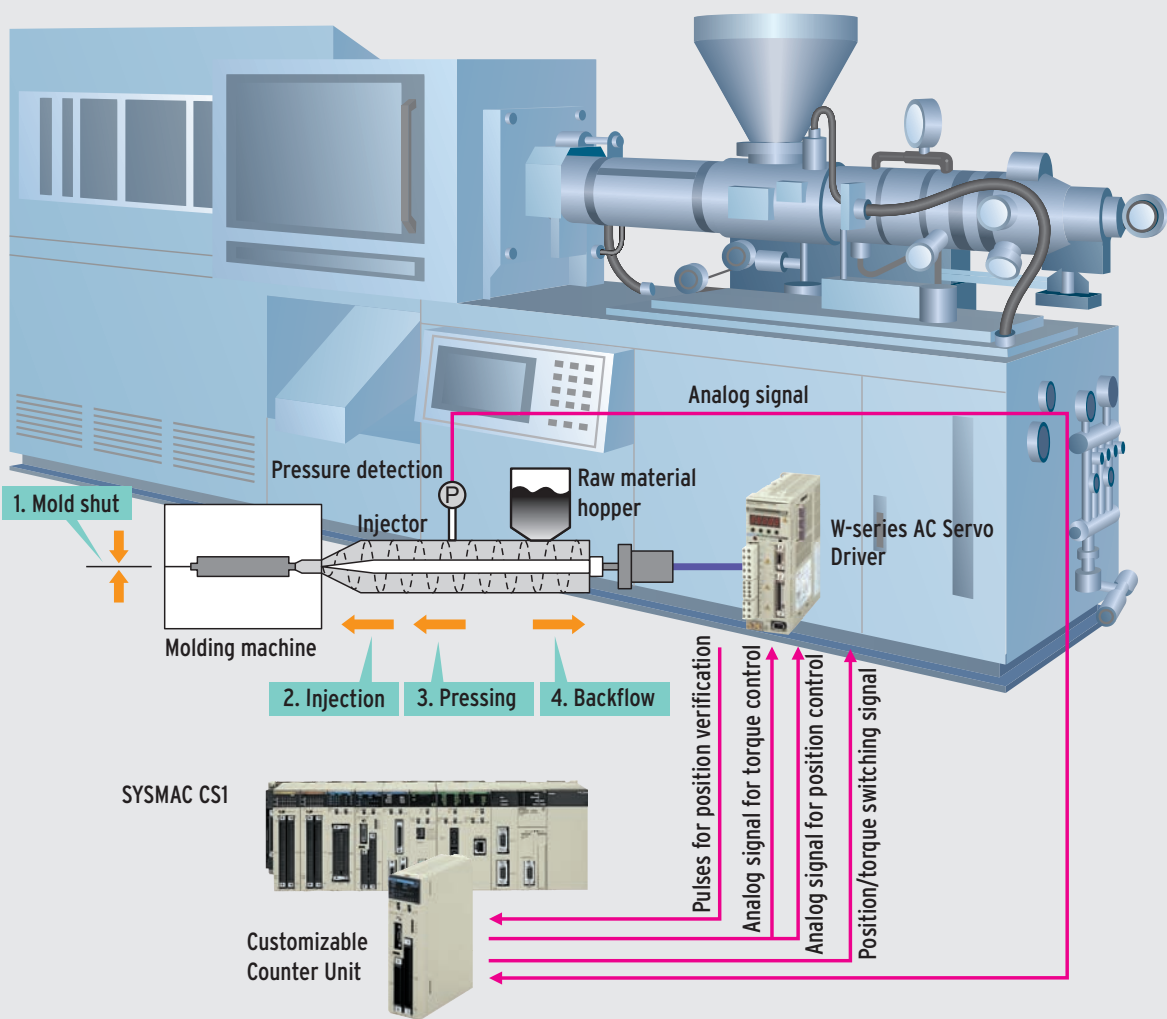
Flexible system configuration allows the number of conveyors to be increased or reduced as necessary.

Customised motion solution slash costs in molding machines

Customisable counter with compact Sigma servo's meet the exact customer needs.

The Customisable Counter unit controls the resin volume injected into the moulding machine (position control) and injection pressure (torque control). This configuration combines all required functions into a single unit.

When controlling the molding machine's injection pressure, it is necessary to convert injected volume to rotations (position control) and injection force to pressure (torque control) during operation. A single Customizable Counter Unit can control both functions, so precise molding is possible at low cost.

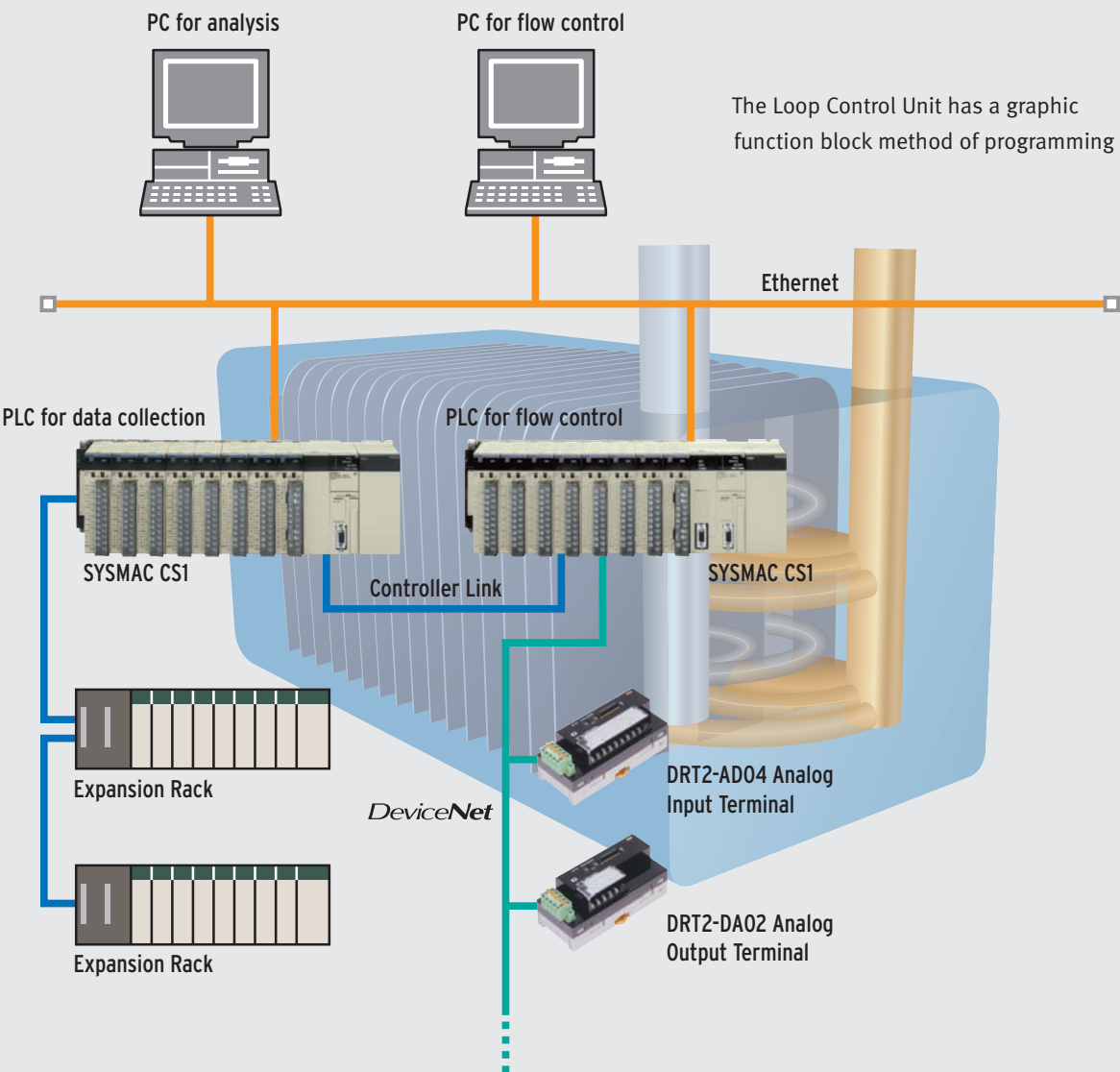


Application examples

Fuel cell evaluation via LCU (loop control unit)

Loop Control Board to provide easy dedicated control of variables such as flow, pressure and temperature.

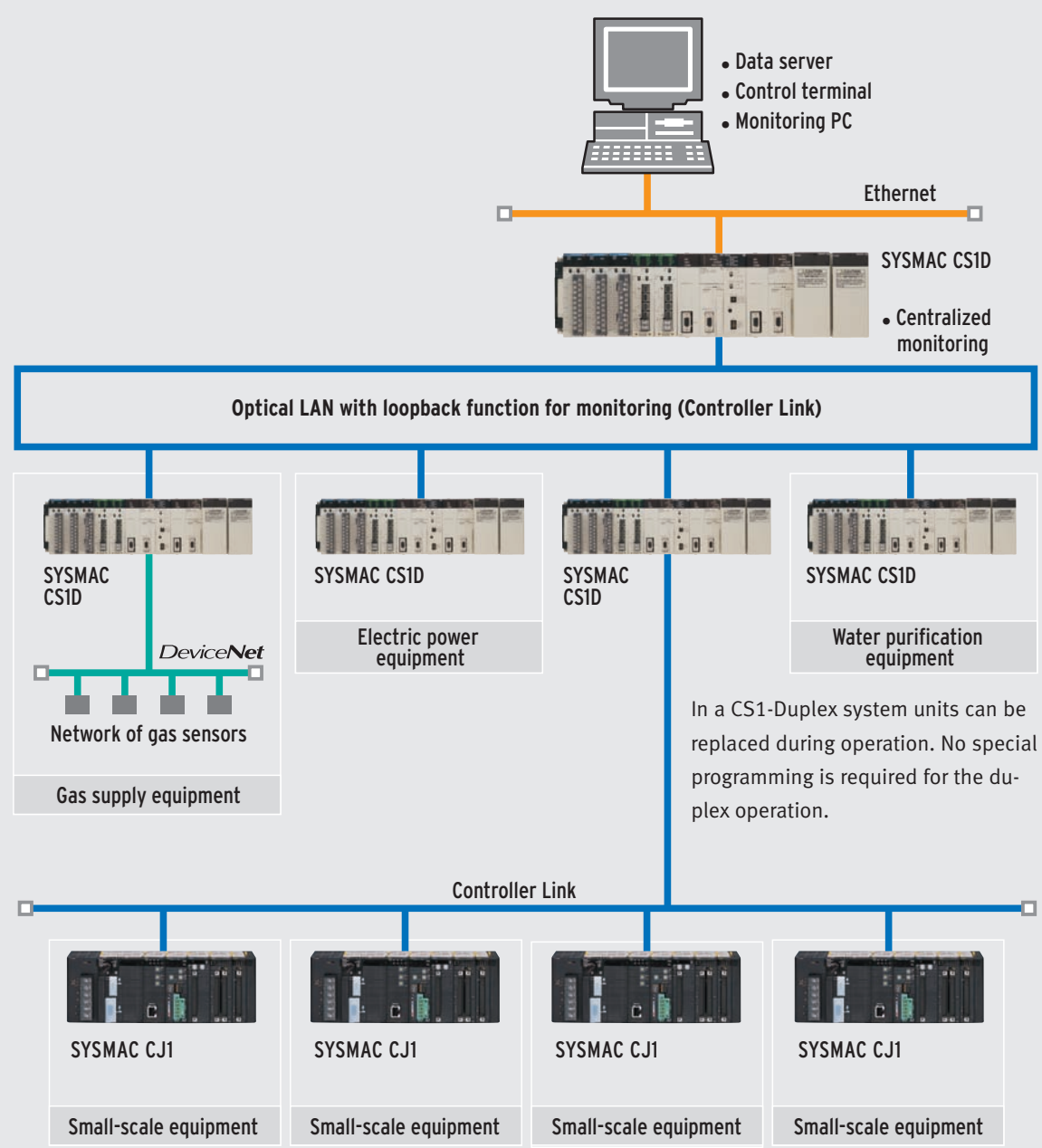
The PLC and Loop Control Board achieve compact and efficient multi-loop analog control of the variables (such as flow volume, pressure, and temperature) to evaluate fuel cells. It also does not require a communications program to exchange data with the PLC. Furthermore, PID control can be performed as fast as 10 ms, so variables such as gas flow and pressure can be controlled precisely.



ZERO downtime in utility management

A Duplex PLC system provides highly reliable system redundancy.

The duplex system provides stable operation in plants that require continuously operation. If an optical fibre breaks, communications are backed up with the loop-back function. If one CPU unit breaks down, the other CPU unit acts as a backup and the system continues to operate.

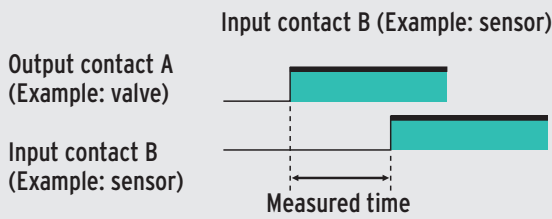
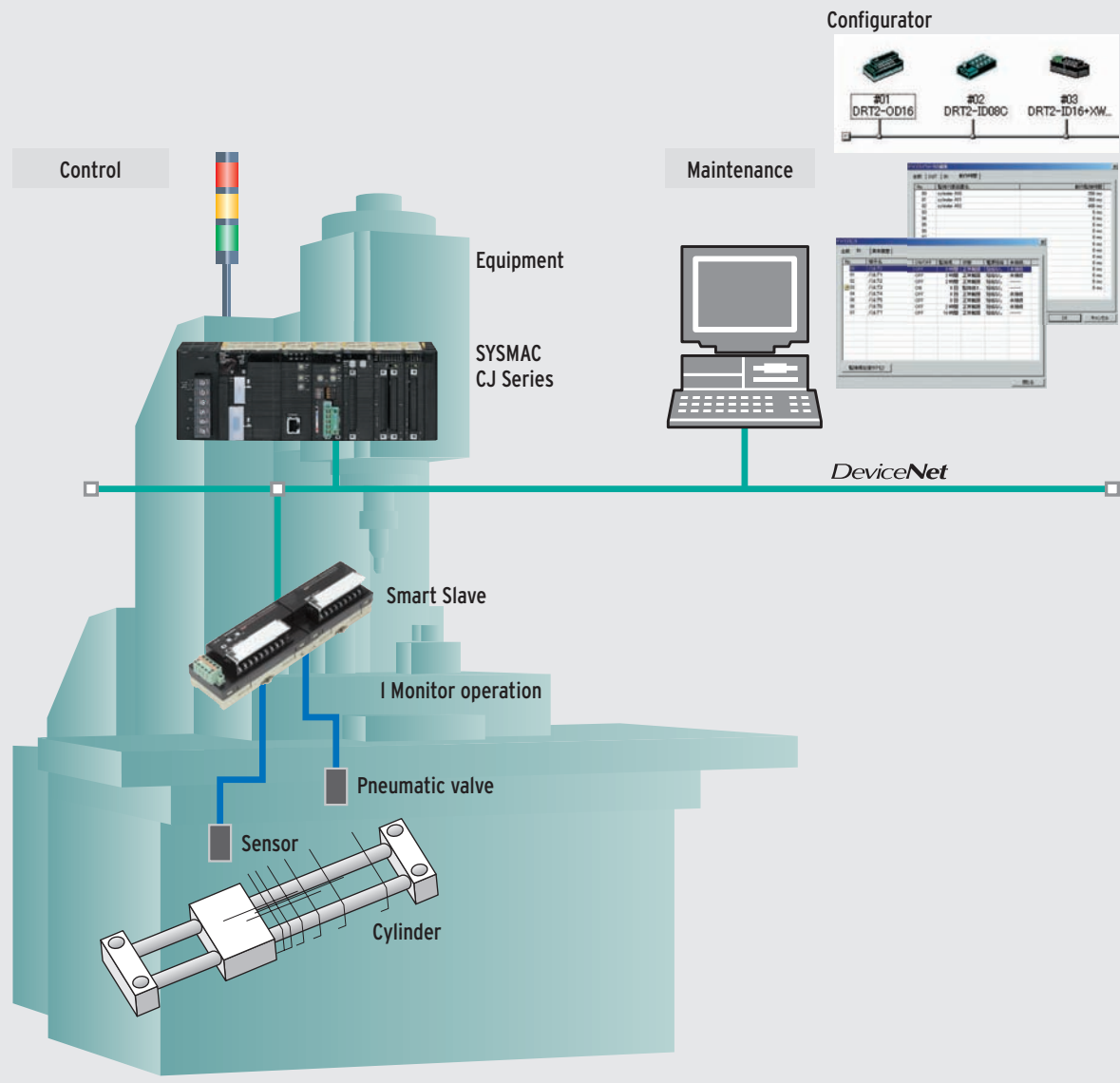


Application examples

Practical Applications using Smart Slaves

Smart Slaves monitor the status of connected devices and help establish an effective preventive maintenance system.

Monitor the operating status of connected devices, not just the ON/OFF status of control bits. The Smart Slaves' advanced monitoring functions indicate when connected devices require maintenance or replacement.

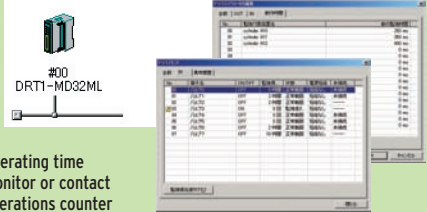


By measuring the cylinder's operating time, it is possible to identify problems such as air leakage or oil loss very early. Since the operating time is monitored, any deviation can be identified and then eliminated by making adjustments with a speed controller or other device.

Short-circuits can be isolated quickly to significantly reduce production line downtime.

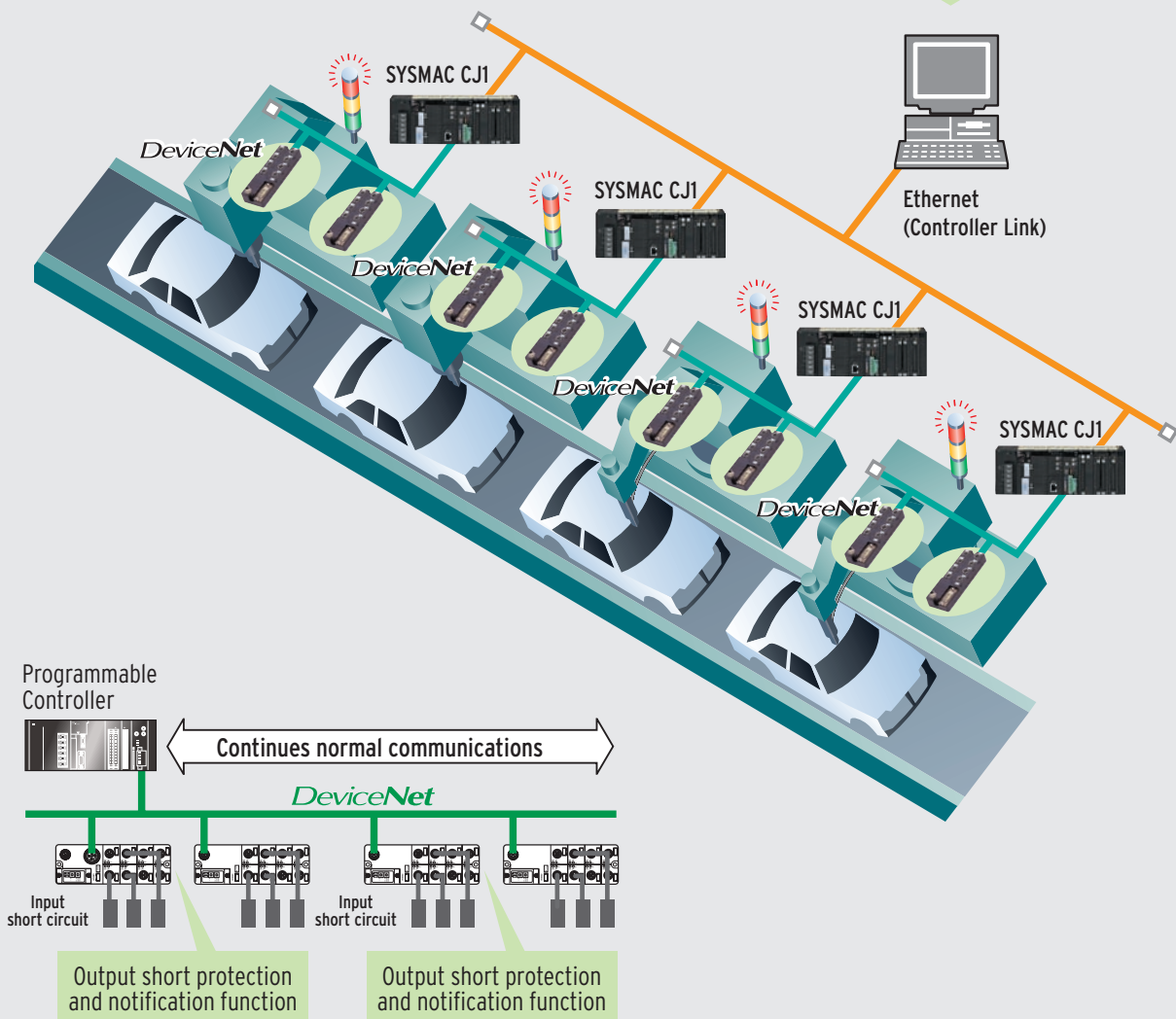
The location of a short circuit can be isolated with the Smart Slave indicators, helping to improve plant efficiency. Short circuits in input devices, such as Sensors, are detected to provide protection at the connector level. This function is very effective and valuable in large-scale systems, such as automobile production lines, where a single short circuit can result in large losses. The specific location of a short circuit can be identified quickly to help minimize the production line's downtime.

Configurator



#00
DRT1-MD82ML

Operating time monitor or contact operations counter



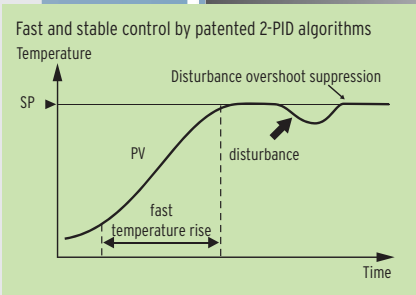
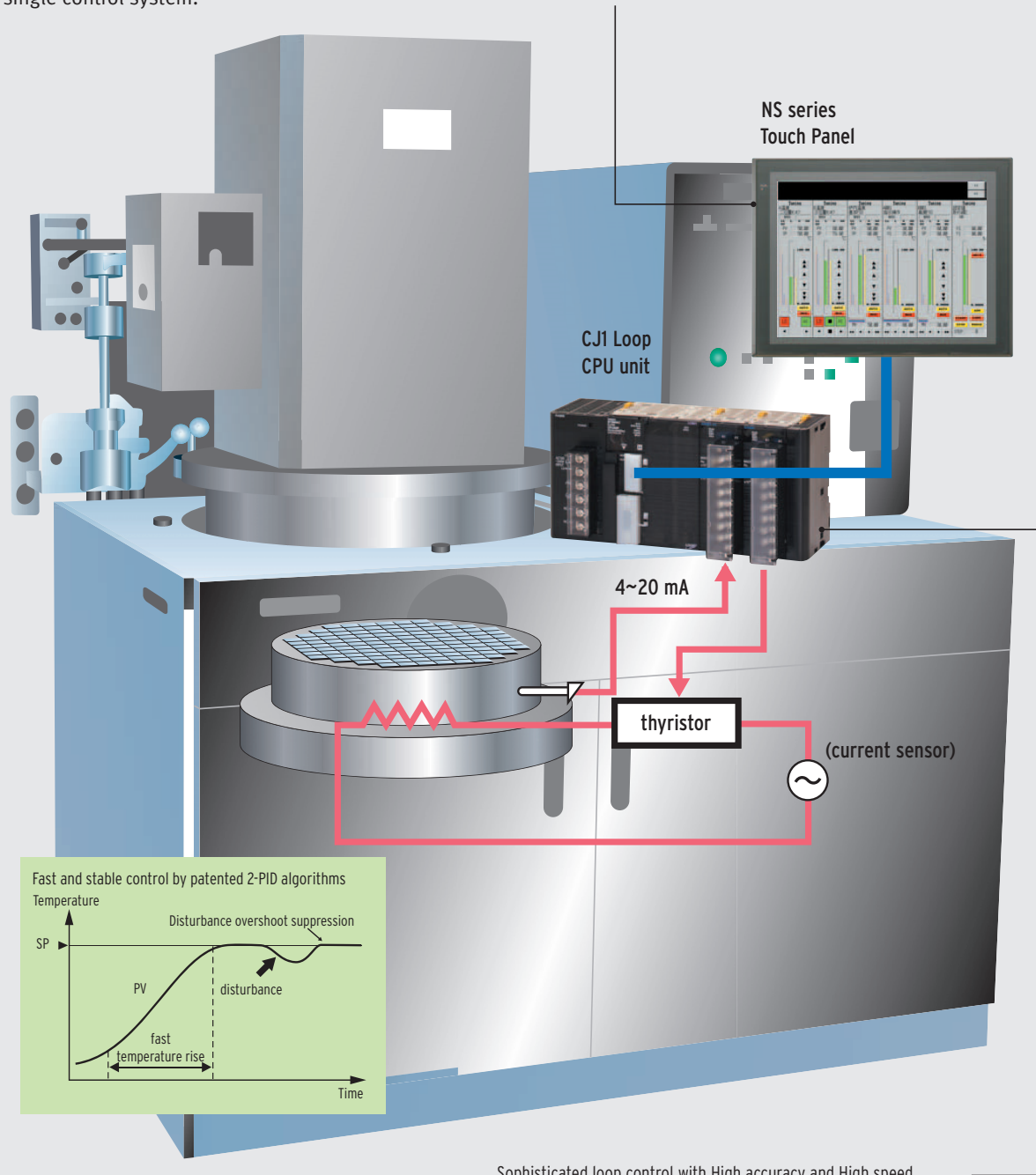
Application examples

Solve your machine control issues efficiently

Semiconductor Equipment

Integration of Loop control and Sequence control can achieve High speed and High accuracy control within a single control system.

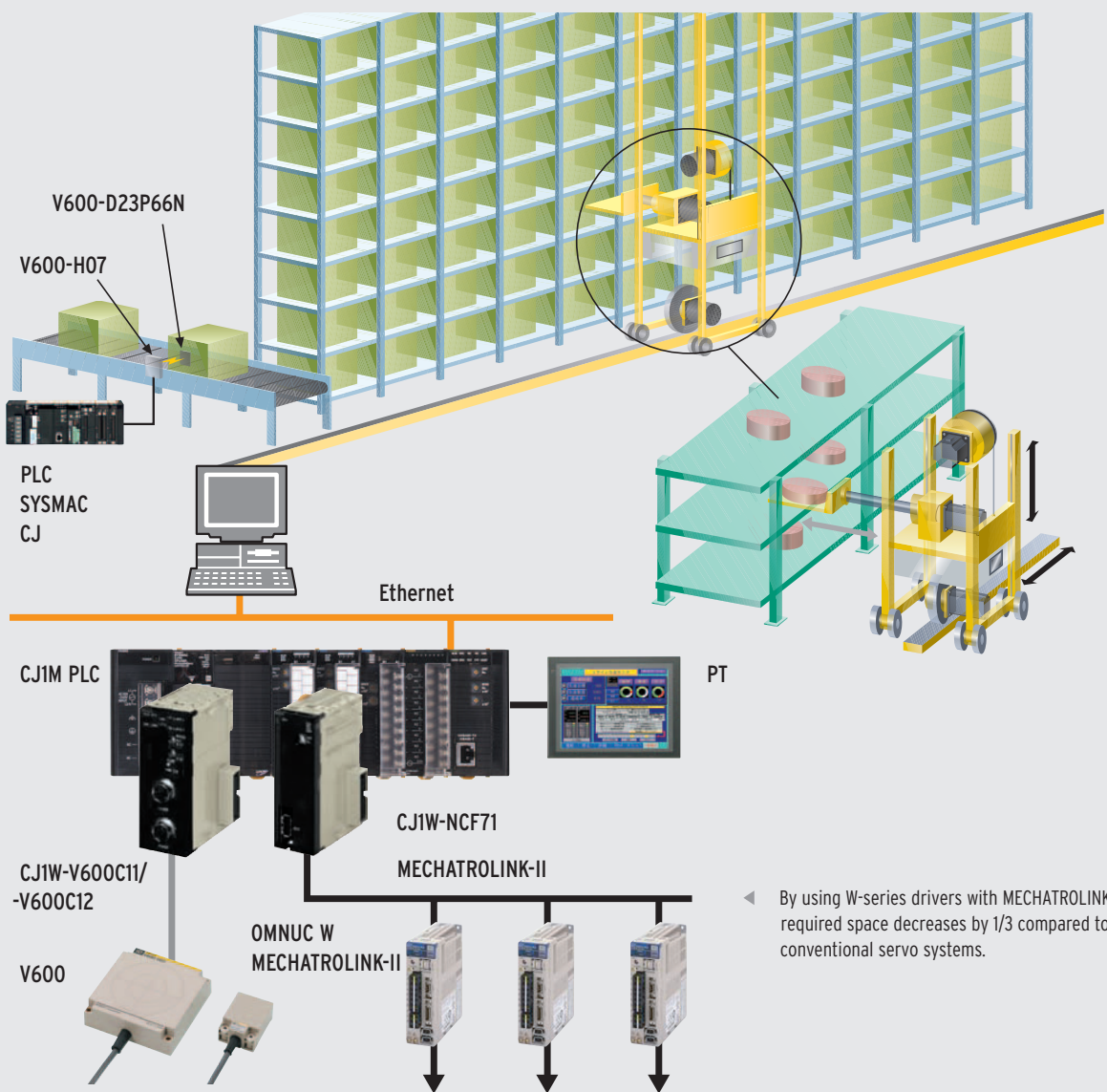
Create a group view on a touch panel automatically from the loop control program. No programming required!



Sophisticated loop control with High accuracy and High speed (10ms cycle time). Monitor views, tuning panels and setting panels are created automatically. Design and debugging work are minimised.

Automatic Warehouse

Keep track of your machine's condition by monitoring motor response, feedback position, speed and torque. Warehouse stock data is easily controlled with integrated RF-ID modules.



▲ Due to reliable data matching between pallet and content, product tracking in the control system is greatly simplified. Picking and sorting errors are reduced.

▲ By using with motor with absolute encoder, it allows skip the zero point search after power down and contributes to increase a rate of operation of equipment.

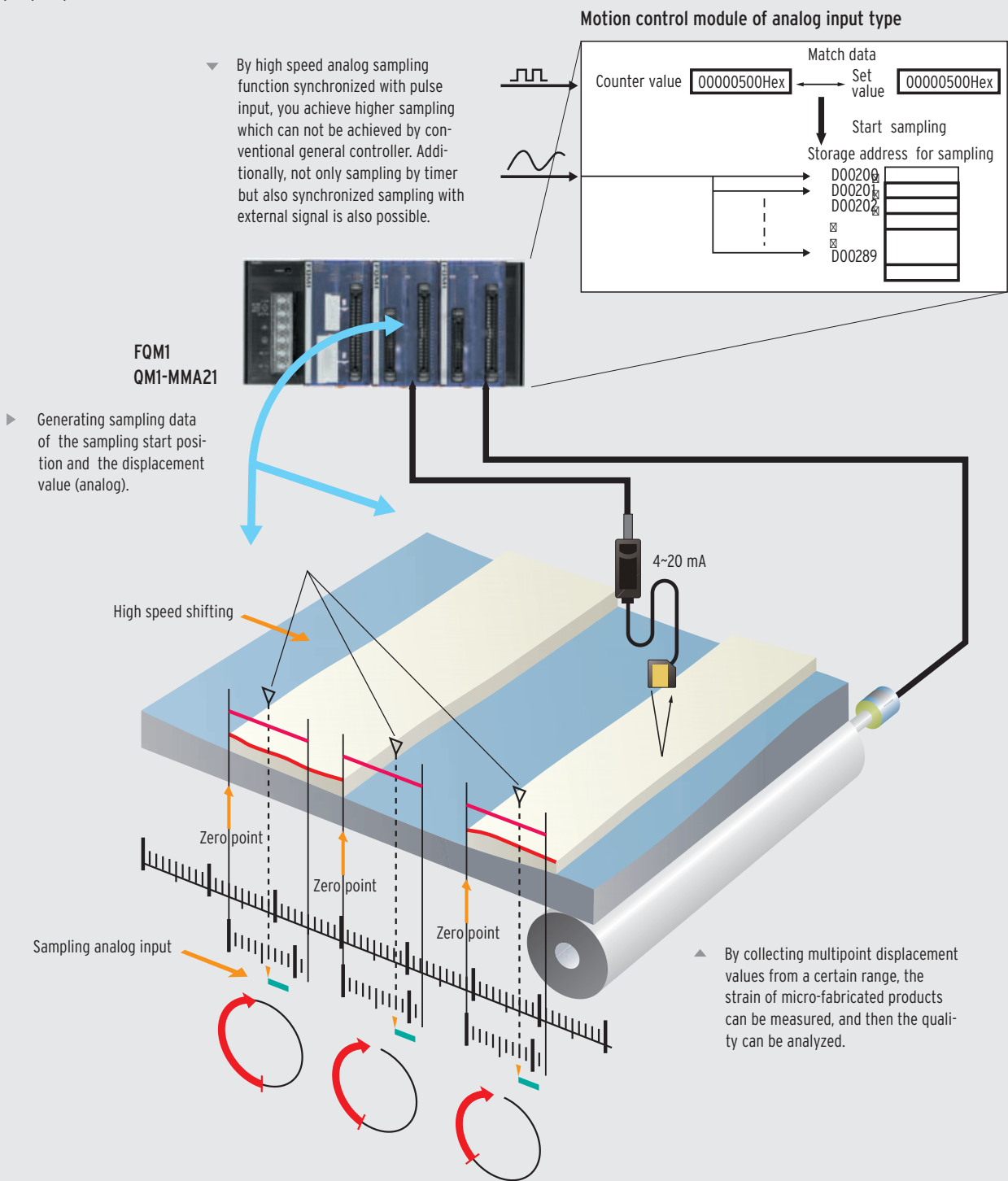
◀ By using W-series drivers with MECHATROLINK-II, required space decreases by 1/3 compared to conventional servo systems.

Application examples

Solve your machine control issues efficiently

LCD panel inspection machine

Easy to collect inspection data along with the proper position.



Shrink labeling machine

