OMRON

Product News

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realizing

New specialized guides offer combined knowhow

Find in seconds - be served in minutes. This is what three new specialized guides offer for Industrial Sensing, Machine Safety and Quality Control & Inspection. Their creation was based on the experience gained from creating the web and working closely together with customers. And each offers specific pages that correspond to the answer you are looking for.

A smart structure guides you intuitively to the right solution and the product to solve it that best suits your needs. Each guide is tuned to the specific application area and offers specific technical background information and field-proof application examples.
If you would like to save time and take a short cut to the right solution, contact us to get your copy.

Visit: www.industrial.omron.eu

Features and benefits

- Clear and bright LCD touch screen

- USB for programming and data transfer

- Many functions and easy to use software

- Expansion slot for extra serial port

- Portrait or landscape display possibility

Easy and flexible installation
The smaller sized versions can be easily installed on any machine, but this also goes for the bigger 5.7″ version, which can be mounted either horizontally or vertically.

Create and operate

The NQ series of easy to use and economic HMI terminals are perfect for many different applications, e.g., simple semi-automatic packaging machines up to a bigger in-line packaging or filling machines. They are available in 2 different sizes and 4 different displays.

In the smaller sizes there is a 3.5 inch colour TFT display and a 3.8 inch blue-mode monochrome display, both of which have 5 function keys in addition to the touch screen. The larger 5.7 inch model is available with a 256 colour STN display or a blue-mode monochrome display. These can be mounted horizontally or vertically, so that the 5.7 inch HMI always fits on your machine.

Get the most out of any PLC
All NQ Series HMIs connect to the Omron compact CP1L PLC just as it does to every other PLC on the market. It draws trends and alarms from both internal memory tags and external PLC tags, thus getting the most out of any PLC.

Multiple features

The many features allow you to create versatile HMI applications. Beside the basic HMI functions, diverse buttons, lamps, graphics, and meters, the NQ series features real-time and historical trending, logging, and alarming. Multilingual texts are standard and also useful functions like pop-up and template screens make it very easy to create a well structured and flexible HMI project.

Easy project updates
All NQ versions have two USB ports for easy project updates using a simple USB stick or USB cable.

When you want to make a more complex HMI screen, a screen or a button can be made to perform some simple calculation or execute a certain action.

With the NQ series, you can create a modern looking interface for your machine to allow easy operation. Together with the other Omron automation solutions, like the scalable CP1L PLC for flexible logic control and inverters for reliable motion control, you can build the most reliable and best performing machines to give you that competitive edge.

www.industrial.omron.eu/nq-series

CX-One software v3.0

Features and benefits:

• Fast and easy backup

• Compare & restore data for
  the PLC
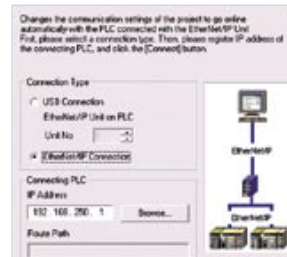
• Easy online with Ethernet/IP

Save time, reduce mistakes and integrate machines

Backing up was never easier

With the latest version of CX-One software you can now backup much easier and quicker. Moreover, if an error occurs it's also easy to compare and find the file that has changed before quickly reverting back to the previous configuration. You can back up CPU unit programs, data memory, PLC setup and settings for CPU bus units and special I/O units in the PLC.

Easy Online with Ethernet/IP

CX-Programmer has always connected automatically to a PLC via serial connection, but now this feature has been expanded to Ethernet/IP. CX-Programmer simply scans the network and shows all Ethernet/IP PLCs. You can even check the devices on the backplane to ensure connection to the correct device.

NS15 HMI

Features and benefits:

• Extremely bright 15 inch XGA LCD

• High-performance screen update

• Analogue touch screen

• Linear backlight dimming

• RGB output connection

NS HMI family expands

A new 15 inch screen version joins the highly successful NS HMI family. The NS15 has a silver grey casing and an analogue touch screen with three buttons on the side, which allow a two-finger press to enable actions as with existing NS models.

The XGA LCD screen has a very high brightness and a linear backlight dimming possibility. It also features an Ethernet connection and a RGB output connection to output the screen image to a second display.

The NS15 has a high performance processor that allows fast screen switching and graphic updating, despite the large screen size. In all other respects it shares the same benefits of the NS HMI family, including exceptional functionality that makes the series so successful.

CP1 compact machine controller

Features and benefits:

• Ethernet connectivity

• Ethernet FINS (both TCP & UDP) communication
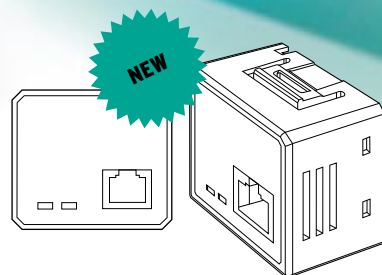
• Long distance RS485 communication

NEW

CP1 Ethernet Module
A small but smart card for even more connectvity

Increased connectivity

Communication option cards for more connectivity

In addition to the current CP1L communication option cards (RS232C, RS422/RS485), Omron now offers Ethernet and isolated RS485 option cards. For applications that need long distance RS485 communication, the new isolated RS485 option card CP1W-CIF12 can be used to achieve distances up to 500 m between two devices. The PC link functionality offers easy data exchange between Omron's CP1, or CJ1 PLCs.

Ethernet connectivity

For CP1 applications that need Ethernet connectivity, the new CP1W-CIF41 supports Ethernet (FINS/TCP), or Ethernet (FINS/UDP). With Ethernet connectivity, the CP1 can be programmed and monitored by Ethernet connection. The Ethernet option card support Omron's existing FINS communication, which will allow you to use NS-series HMI, or PC based visualistion software, to connect to your PLCs without special cabling.

CX-Server LITE/OPC v2.0

Features and benefits:

CX-Server LITE

• Backup your PLC programs, including function blocks

• One version for all networks

CX-Server OPC

• Integrated redundancy for reliable systems

• High-volume data capacity through FinsGateway 2003

Visualise data your way

Omron offers you a choice of tools that allow you to visualise your machine on your PC.

CX-Server LITE

An easy-to-use yet highly advanced software development package that enables you to build your own applications to read and write data to Omron devices. And without the need to write a single line of code! It interfaces with any third party ActiveX control.

CX-Server OPC

It gives you total freedom in the selection of visualization software, while ensuring total connectivity to and interoperability with your devices. Includes support for C-series, Trajexia, CelciuX, ZX sensors and many more. CX-Server OPC has all the functionality needed to switch automatically within a system of redundant PLCs and networks. This makes it ideal for applications where in-built redundancy protects against malfunction or damage.

CelciuXº modular temperature controller

What's new:

- Independent heating and cooling PID sets
- Self-tuning of the control parameters
- Cooling output characteristic for linear, air or water.
- Monitoring of output status on front LED indicators
- Configuration from Modbus hosts possible
- Multi-drop connection support from CX-Thermo v4.1 up

Control and Connectivity

The CelciuXº modular, multi-channel temperature controller, which interfaces to a wide range of industrial networks, is the temperature control building block for Omron's Smart Platform. Now a new 1.2 version of the CelciuXº temperature control modules (EJ1N-TC2/TC4) is available incorporating enhancements that focus on plastic/extruder applications, like self-tuning and heat&cool auto-tuning.

Communications has also been made even easier by enabling with Modbus and communications speed to be selected with switches. And for improved diagnostics during maintenance, it's now possible to monitor the output status on the LEDs.
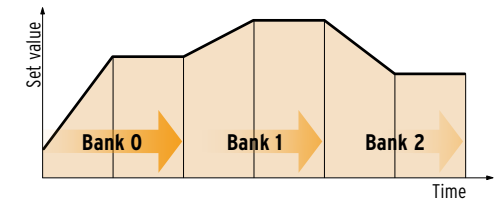

E5_N-H temperature controller series

Features and benefits:

- Input sampling 60ms
- Input accuracy 0.1%PV
- Full 3 line, 5 digit display
- Universal input (Pt, t/c, mA, V)
- Replaceable output modules (Relay, Volt, Current, Pulse and SSR)
- Remote SP and transfer option
- IR port on the front
- Up to 4 event inputs
- Banks that can hold operation parameters like PID

Proven concept with process control features

Acknowledged as the best temperature controllers for general applications on the market today, the E5_N series is now joined by a new, high-end series.

The new E5_N-H series takes proven features to the process control level and with the same easy installation, operation, and menu structure as the E5_N series. However, it improves both on accuracy, speed, as well as process control features. The process specifications provide you with the flexibility that gives your application that special edge.

Time based process applications
Banks are used to create recipes. Next to PID and alarm settings, the banks can also hold soak times to create an SV program.

CJ1W-MCH72 – Trajexia controller for PLC

Trajexia in compact format

Trajexia expands with new PLC-based controller

Omron has expanded Trajexia product line with a new controller focusing on compactness and simplicity. Capable of controlling up to 30 physical axes, digital I/Os, encoder port and MECHATROLINK-II master connection are all included in a single unit.

Trajexia Studio software

The Trajexia Studio tool offers an easy and intuitive software environment that saves time programming and debugging your applications. It supports existing devices, as well as the new PLC version and future developments.

Features and benefits:

Trajexia controller:

- Compact size
- Control of up to 30 servos or inverters
- Selectable cycle time from 0.5 ms to 4 ms
- Serial port for external encoder
- Embedded digital I/Os
- Same instructions set as 16 axes stand-alone controller

Trajexia Studio Software:

- Improved user graphical interface
- Multi device support
- Drag & drop functionality
- Offline programming and advanced download
- Program comparison tool
- Axis configuration wizard
- Advance editor features

www.industrial.omron.eu/trajexia

Energy saving inverters

Save up to 30% energy

Substantial reduction of energy costs

Electrical motors are one of the main electricity consumers at industrial plants. They account for almost half of the energy used in Europe and almost two-thirds of the energy used in industry. Trials now show that using an inverter to control the motor speed and match it perfectly to the load requirements of the installation greatly reduces energy consumption, thus reducing operating costs considerably. For variable torque applications, such as with pumps and fans, the energy saving is even higher because at low speeds an inverter consumes even less energy.

Software tool

You can evaluate it for yourself with €Saver, a software tool that estimates the energy saving when installing an inverter on your pumps, fans and compressors. It will help you to understand how efficient it is and how little time it takes to recover your investment if you decide to install an inverter to control the motor speed.

www.industrial.omron.eu/energysaving

E3T-SR4 miniature coaxial photoelectric sensor

Precise detection through small gaps

Features and benefits:

• Coaxial optics for detection through small gaps

• Fine beam for detection of small objects

Object detection through smallest gaps

The highly popular E3T miniature photoelectric sensor range has been extended with a new, retro-reflective model, the E3T-SR4. The coaxial optics allow the detection through smallest gaps and remove the sensing dead zone of conventional retro-reflective sensors. With the fine beam very precise detection of small objects can be ensured.

E32 fiber optic selection guide

Features and benefits:

• Easy selection by key features and application areas

• Extensive information on accessories, services and product dimensions and properties

Select the best match for your application

Select the fiber and amplifier solution best matching your application demands from our wide portfolio range.

The new selection guide supports selection by key features and application areas. It also provides additional information on add-ons and services to provide the best performing solution.
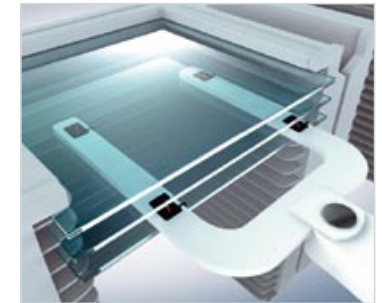
E32 glass detection fiber sensors

Features and benefits:

• Stable detection and positioning of flat glass

• Models for standard, high temperature and wet processes

Highest detection reliability for flat glass

A new generation of glass detection fiber sensors is available for the photovoltaic and semiconductor industry.
The housing construction have been optimised for different detection distances, temperatures up to 300°C, or water and chemical resistance.

Precise positioning of flat glass.

Reliable operation in high temperatures and wet processes.

Complete range of fibers optimized for the detection of flat glass.

TYPE	MODEL	SENSING DISTANCE AND FEATURE	
Standard	E32-L16	up to 15mm, plastic housing	NEW
	E32-A10	up to 8mm, metal housing	
Heat resistant	E32-L66	up to 18mm, up to 300°C	
	E32-L64	up to 5mm, up to 300°C	NEW
Wet process	E32-L11F	up to 20mm, fluororesin coating, immune against effects from water drops	NEW
	E32-L12F		

G9SX-SM and F3S-TGR-ZSM1 safety units

Features and benefits:

• Standstill detection based on Back-EMF operation for safety and reliability in operation

• Operates in star and delta wiring to support standard drive systems

• Operates in one and three-phase systems to support a wide range of drive systems.

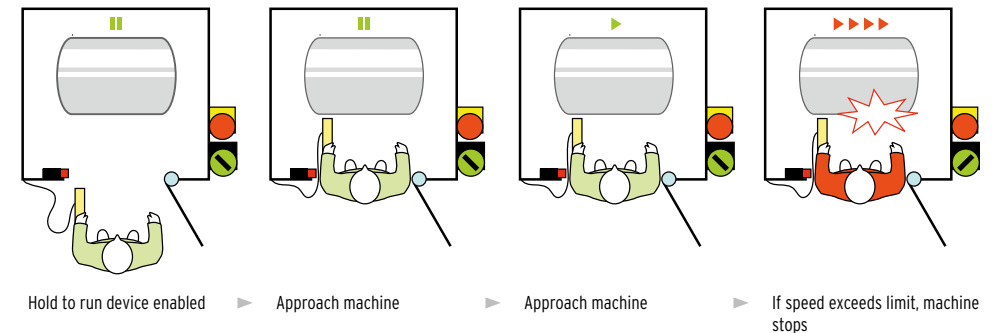## G9SX-LM flexible safety unit

Features and benefits:

• Standstill monitoring and limited speed monitoring in one unit

• Preset switch for limited speed setting for fast and easy setup

• Clear LED diagnosis of all in and output signals for easy maintenance

• Safe monitoring of maintenance mode setting switch and run-to-hold device

• Applicable up to Safety Category 3 according to EN 954-1.

Monitoring of safe standstill

Before granting access to areas with mechanical guarding, the dangerous movement of a machine needs to be safely and surely stopped.

The G9SX-SM and F3S-TGR-ZSM1 safety units prevent access to dangerous areas before standstill is achieved.

Downtime of the machine in maintenance operation is reduced since access is granted as soon as a safe stop is achieved. There is no additional time delay to unlock the mechanical guard necessary.

G9SX-SM:

• Ready to use in all standard applications without additional setup

• Clear LED diagnosis of all in and output signals for easy maintenance

• Applicable up to Safety Category 4 according to EN954-1

• Electronic outputs for longest lifetime

F3S-TGR-ZSM1:

• Applicable up to Safety Category 3 according to EN954-1

• Redundant safety relay outputs

Safe during maintenance operations

When setting-up or cleaning a machine, the integrated drive system still keeps parts of the machine in motion. To reduce the risk of hazards for the operator in this situation and to maintain safety, the machine is only allowed to operate at a limited speed.

The G9SX-LM safety unit monitors the speed of the machine and stops it safely if the speed limit is exceeded.

www.industrial.omron.eu/safety_units

Hold to run device enabled ▶ Approach machine ▶ Approach machine ▶ If speed exceeds limit, machine stops

www.industrial.omron.eu/safety_units

G2RV industrial interfacing

Features and benefits:

- Interfaces blocks of 8 relays with your PLC
- Sets up secure and reliable connections in only three clicks
- Guarantees easy and faultless wiring every time
- Standard 8- and 32-point cables readily available

Industrial interfacing made easy

Our G2RV connectors are specifically designed for industrial interfacing. They create faultless connections in a matter of seconds and avoid wasting time with screwdrivers or soldering when replacing relays. Three clicks suffice to create a perfectly secure and reliable connection with your PLC.

Combition of LED and Mechanical indicator guarantee a reliable operation check

Save time during installation

Our new industrial interfacing solution makes installation and replacement of relays easier than ever. Three seconds are all it takes to interface our connectors to any type of PLC. Wiring mistakes become a thing of the past and operation is easily checked: the LED indicator shows whether the coil is energized and the mechanical flag indicates the actual operating status of the contacts.

Optimize the availability of your applications

Our interfacing solutions are designed with the optimal availability of your applications in mind. Our 6 mm relays outlast every other slim relay on the market. Reliable connections and faultless wiring reduce the downtime of PLCs to an absolute minimum.

www.g2rv.com

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