

Global Network

Panasonic
ideas for life

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Panasonic Electric Works

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Short Form

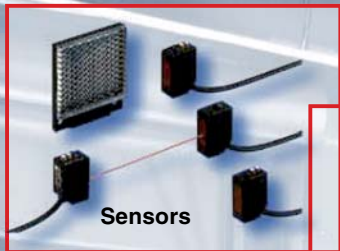
Panasonic Automation Products

Panasonic[®]



Industrial solutions

Introduction and product overview



Sensors



Machine Vision



Laser Markers

Sensors & Inspection



Operator Terminals

PLCs & Control



PLCs



Servo Drives & Inverters

Automation Components

Intelligent automation products technology provided under the global trademark Panasonic

Economic globalisation requires production with unprecedented efficiency. An indispensable factor in achieving this is the use of sophisticated automation systems. With intelligent automation products and state-of-the-art automation control equipment, Panasonic provides global support for automation and the enhancement of comfort, not only in production processes but in other workplaces as well.

We help make society more comfortable by exploiting the automation control technology we have developed in factory automation. This technology is applied to the automation of public and private buildings, power monitoring and remote control systems, for example. We deliver products that meet a wide range of needs today, including demanding size, service life, and reliability requirements. Our activities have an outstanding reputation for innovative engineering and high quality.



Timers, Counters & Eco Power Meters



Temperature Controllers



Limit Switches



SUNX sensors

Innovative sensor technology

Typical applications

An interesting and extensive range of sensor products is being offered under the SUNX brand. The new sensor generations are being produced by the consistent application of state-of-the-art technology. The characteristic features of these sensors include intelligence, multifunctionality and miniature design.

The variety and complexity of the tasks in automation and the increasing need for quality management have resulted in more and more specialised demands being made on modern sensors. We are offering sensors that provide precise measurement results even in the most complicated of applications.



Universal photoelectric sensors

Miniature photoelectric sensors

2.5 m

Trigonometric sensors

Fibre optic sensors

Pressure sensors

Safety light curtains

Packing machines

Door control

Machinery equipment

Automobile production

Assembly machines

Machine Vision systems

Industrial inspection solutions across the board

Industrially proven quality

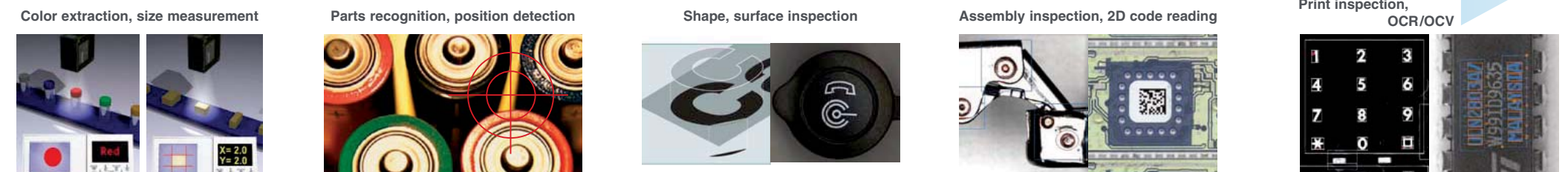
Panasonic is one of the few manufacturers that offers a complete Machine Vision systems range, from the small vision sensor to high-end devices. All of these products have one thing in common: they help to produce 100% quality, and that translates into 100% satisfied customers.

Our Vision systems are used extensively in our own manufacturing plants. Hence the systems are developed and based on real industrial requirements and applications.

Machine Vision applications must often be tailor-made. Rather than offer only one product, we strive to provide you with the most reliable and efficient solution for your visual inspection task.



2D code reader Highly accurate reading even under severe conditions	Vision sensor Machine Vision – as easy as a photoelectric sensor	Compact gray-scale systems Small, fast, smart ...	Compact color system More information through colors	Compact/High-speed For demanding high-speed applications	PC-based Machine Vision High-performance, all-round systems
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Packaging ■ Food ■ Machinery ■ Automotive ■ Electronics

Programmable Logic Controllers

Advantages of PLC control

Panasonic PLCs offer an outstanding quality which incorporates numerous functions into a very compact body. Even in the smallest size they provide a powerful instruction set which allows the system to handle demanding tasks such as analogue control, networking and positioning control.

As with all Panasonic products, the PLCs undergo extremely rigorous testing during development that far exceeds the demands that will actually be placed on them. This is a guaranty for the long life of the product in the application.

Innovative Programming Software

Our PLC programming software was one of the first on the market according to the international standard IEC 61131-3. Numerous libraries that incorporate a lot of our know-how ensure the reusability of ready-made functions and function blocks and save time for programming and debugging.

Control FPCWIN Pro works with any FP-series programmable controller.

FP OPC Server is best suited if you need to connect your software application to a Panasonic PLC.

Strong in communication



Telecontrol

- ▶ Telecontrol via **analog modem**
- ▶ Wireless telecontrol via **GSM/GPRS adapter**
- ▶ Building automation via **IEC60870 Communicator**
- ▶ Ethernet and Building automation via **FP Web-Server**
- ▶ Industrial communication via **PROFIBUS, DeviceNET or CANopen Units**



FP-e

All in one

This single unit contains multiple features: timer, counter, hour meter, temperature controller and PLC functions. Making full use of these functions, the FP-e can handle a wide range of applications.



FP0 series

Perfect for small devices

The control unit's dimensions are W25 x H90 x D60mm. With up to 3 expansion units the FP0 can be expanded to a maximum of 128 points I/O. Even so, the size is still only W105 x H90 x D60mm, a super compact design that breaks all previous common sense rules on small-scale PLCs.



FPΣ (Sigma)

Compact PLC

With its two 100kHz pulse outputs, four high speed counters that function at up to 50kHz for positioning applications, a programming memory capable of storing 32,000 steps, a real-time clock, and communication interfaces for RS232 and RS485, FPΣ (Sigma) is one of the most flexible and also the smallest PLCs on the market.



FP-X

Compact PLC

Integrated communication ports provide direct, open communication without extra units or adapters

FP-X is one of the most powerful compact PLCs in the world. A program memory with 32,000 steps combined with the high operation speed of 0.32μs/basic instruction are proof of this. It is our first PLC which has USB and RS232 ports for programming on board. FP-X provides highest flexibility with its unique expansion cassette technology.



FP2 / FP2SH series

Ultra-high performance

The FP2SH is a high-performance PLC featuring a remarkable processing speed of 0.03μs and a large capacity program memory up to 120,000 steps with a wide range of modules in an amazingly compact form. This PLC greatly contributes to shortened production times, down-sizing of production equipment and improved networking.

3 Highlights:

▶ **best PLC temperature control concepts**

▶ **No. 1 in telecontrol**

▶ **Motion Control certified by PLCopen**

Motion control

Servo drives & inverters



Motion Control: Servo drives & inverters

Our Motion Control Solution comprises FP series PLCs, Minas A4/A4N drivers, servo motors and appropriate cables. The latest technological advances in digital control enable motion control solutions to be applied to even the smallest machines.

Panasonic Inverters are ultra compact and easy to operate using the integrated operating panel.

FP-SERIES PLCs



MINAS A4/A4N/A4P/E SERIES SERVO DRIVES



SOFTWARE



Industrial solutions

Operator terminals for all applications



Operator terminals

Whether in industry, transport and traffic systems or modern office equipment, today's technology increasingly demands communication between humans and machines. Machines are not only required to display data, results and messages, they must also accept process variables and actions from their human operator.

The GT series touch terminals make communication between human and machine easy. With an installation depth of 24mm (GT01) to 39.1mm (GT32), GT terminals boast the slimmest body in the industry. However, compact size does not diminish quality: the resolution for text and graphics is 128x64 to 320x240 pixels. You can choose between monochrome and color (STN, TFT) displays.

By using the programming software GTWIN, you can create messages and graphics to display on the GT series touch panels. GTWIN also contains several libraries with predefined objects, e.g. switches, lamps, clock parts, sampling diagrams, etc., allowing you to design screens quickly, easily and tailored to the needs of your application.

For applications where a simple message suffices, Panasonic's Message Runner may be your answer.

The extremely compact Message Runner can display up to 64 text messages. You can define the appearance for each message, e.g. its color, speed, whether it blinks, etc.. Messages can contain up to 32 characters and "run" across the screen 8 characters at a time.



Message Runner

Industrial solutions

High quality automation components



Temperature controllers

The KT series offers both economy and high performance. Multi-input enables connection of thermocouples, RTD, DC voltage and DC current input for temperature detecting sensors. All required operations can be enabled by the front keys, and highly accurate PID control mode ensures an input span of $\pm 0.2\%$.

The KT series offers optional various communication interfaces and protocols.



Timers, counters and limit switches

Designed for maximum flexibility and reliability, our high quality precision timers and counters have various time functions in different time ranges. They are easy to set and have a brilliant design.

Panasonic limit switches are compact and highly functional. They have superior contact reliability and weld resistance as well as a long life thanks to our unique contacts and switching mechanisms.



Fan motors

Our fan motor series include the axial fan motors „ASFN“ for DC applications and „ASEN“ for AC applications. For years Panasonic fan motors have been characterised by high performance, a long lifetime and quiet operation. Due to their high performance and wide range of sizes and voltages, they can be implemented in various applications.

Industrial solutions

Measure, log and display

Eco POWER METERS

Panasonic's Eco-POWER METER series lends transparency to your consumption data.

Measured data such as the physical values power input, voltage, current, power factor, frequency, etc., can be visualized and analyzed, uncovering potential areas in which to save energy.

Our products can thus seriously contribute to optimizing energy consumption in manufacturing plants and industrial buildings, thereby reducing CO² emissions globally.

Your advantage: one-stop shopping application solutions from Panasonic!



Transparency via Traceability

Safeguarded by Laser Marker systems



LP-V, LP-W series



LP-400 series



LP-300 series

SUNX Laser Marker systems stand for:

- Flexibility regarding layout or marking
- High precision
- Legibility resulting from sharp contours
- Relatively high resistance to wear
- Preventing forgery
- Contact-free process
- Wide range of materials that can be marked
- A high degree of automation
- Environmental friendliness
- No waste (solvents)

Laser Marker flexibility:

- Many different power levels
- Various wavelengths
- Variety of marking areas
- Several laser beam diameters
- Unlimited applications
- Can be used for marking and processing tasks, e.g. cutting and surface treatment
- Can be used on glass, ceramic, resin, metal and organic materials (rubber, leather, wood, etc.)



Panasonic corner stone for traceability:
SUNX Laser Marker Systems

