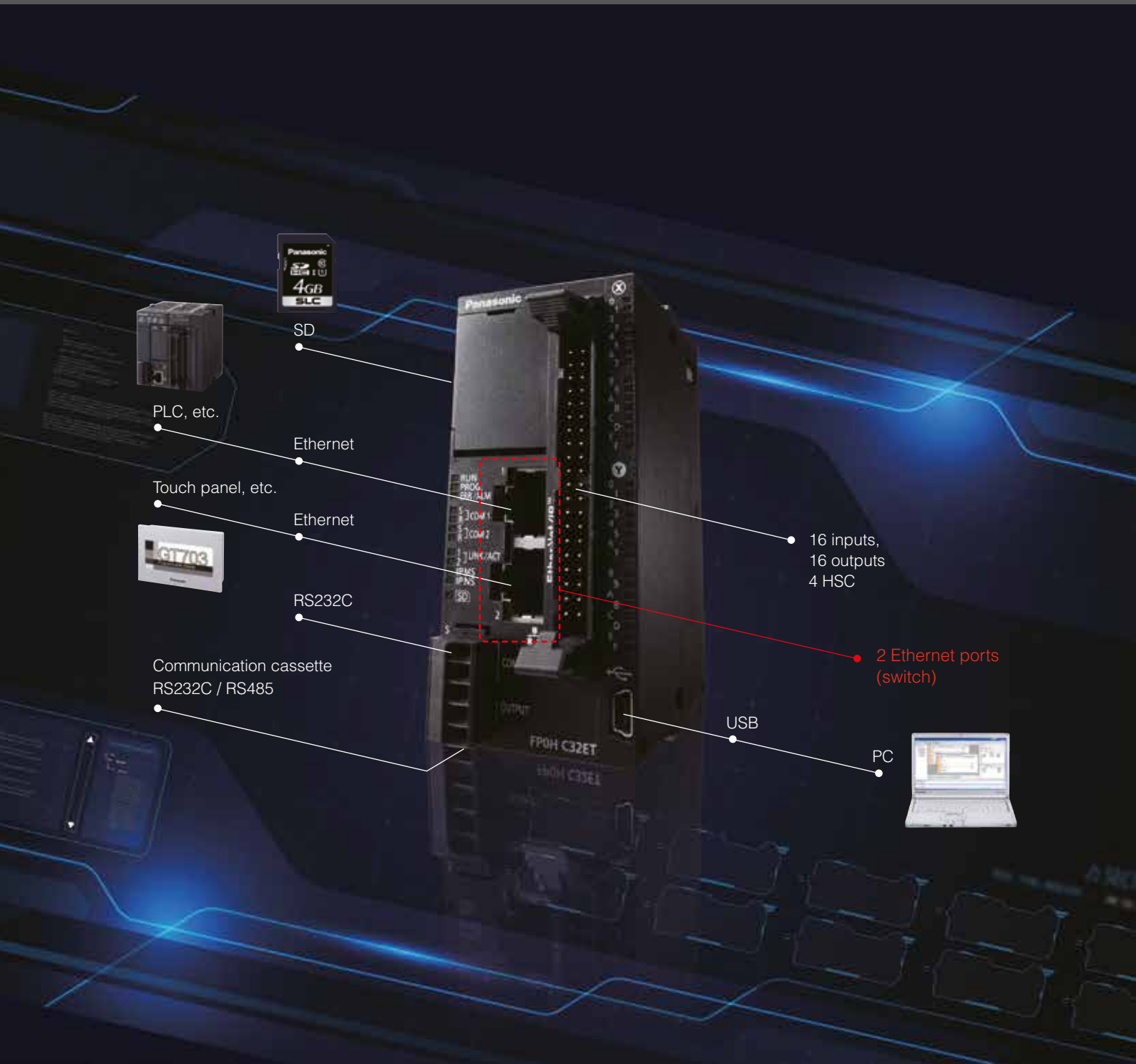
Panasonic

Programmable Logic Controller

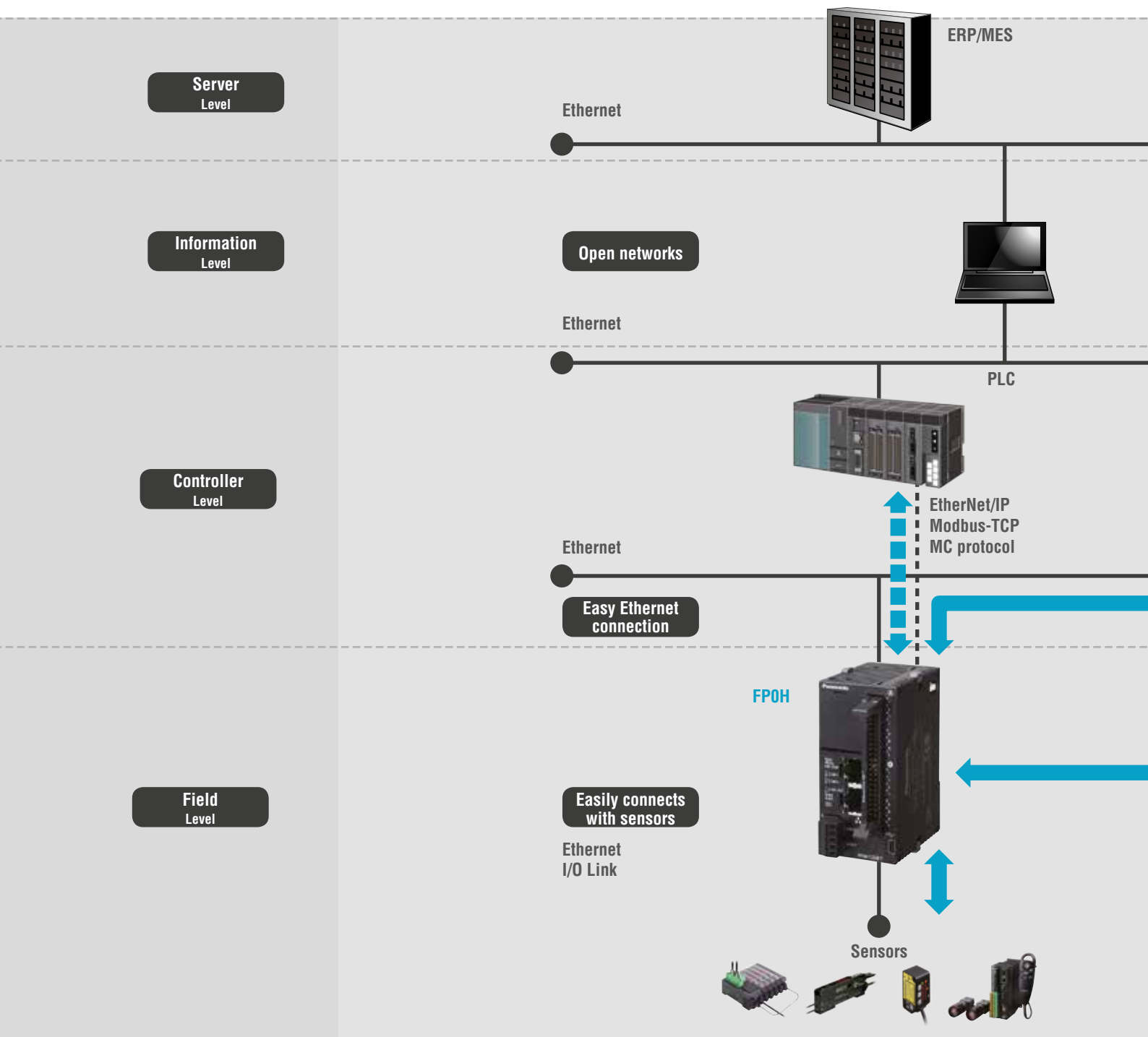
FP0H SERIES

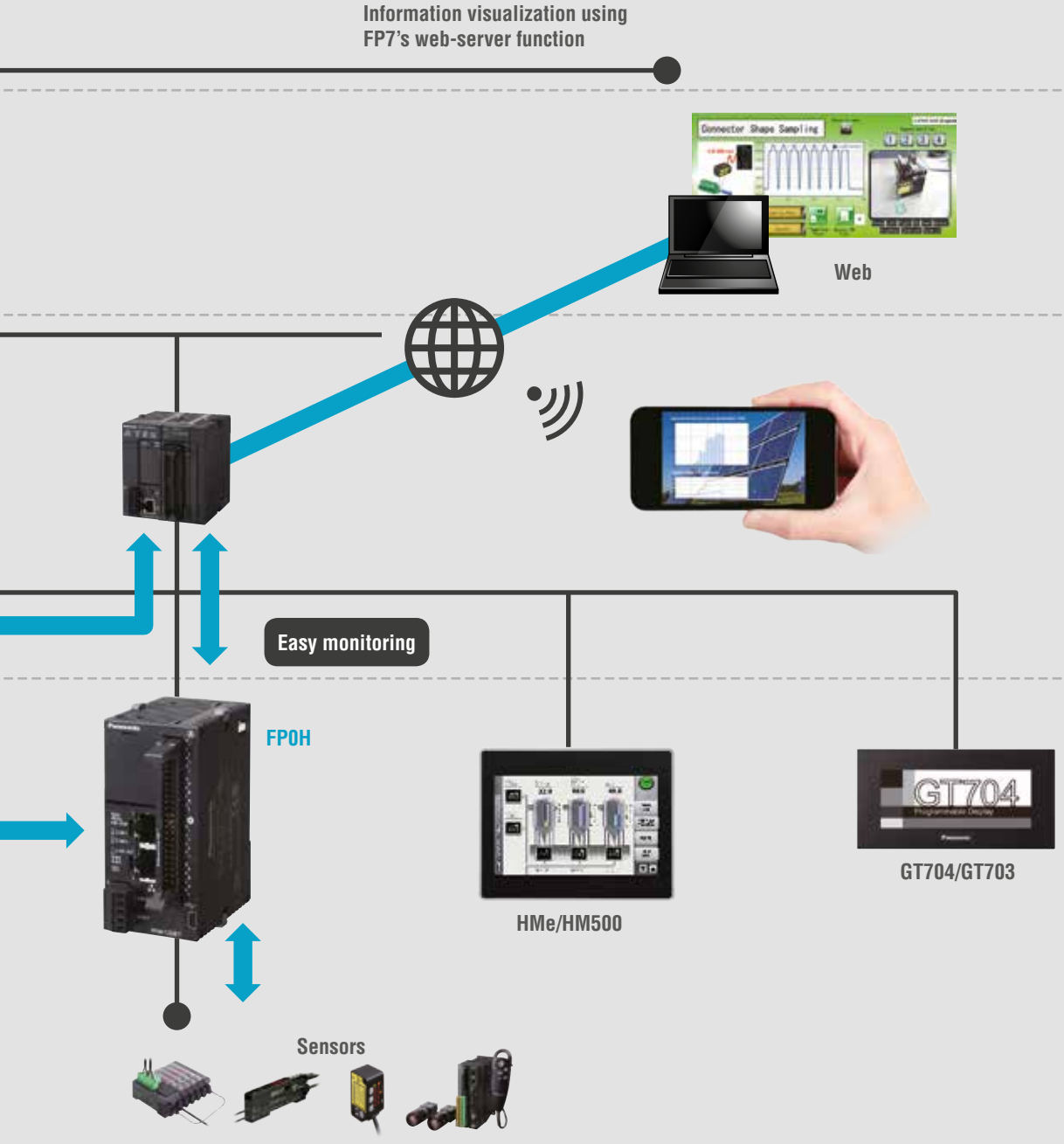


FP0H collects information from field-level devices.

Thanks to its two Ethernet ports, the ultra compact PLC allows flexible connection to field-level devices. The PLC supports a large number of open protocols.

Network hierarchy




Information visualization using
FP7's web-server function
Web
Easy monitoring
FP0H
HMe/HM500
GT704
GT704/GT703
Sensors

Excellent basic performance in an ultra-compact body

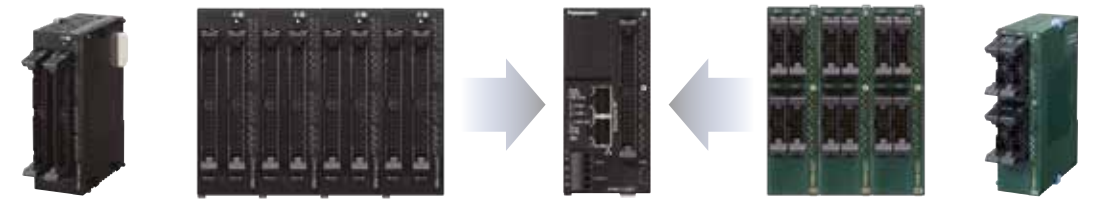
- **High-speed processing**
  Only 10ns per basic instruction (up to 10k steps), 8 x faster than conventional models
- **High capacity – two times larger than conventional models**
  Program capacity: 64k / 40k / 32k / 24k, data capacity: 12k / 24k / 32k / 64k
- **High compatibility**
  Ladder programs written for FPΣ (Sigma) can be converted for FP0H to facilitate the replacement.

To improve productivity in all types of equipment

- Food processing machine
- Packaging equipment
- Inspection equipment

No. of inputs / outputs	16 inputs, 16 outputs (max. 384 with expansion units), transistor output (PNP/NPN)
Built-in interfaces	Ethernet port x 2, RS232C port x 1, USB port x 1
Expansion	**FP0H / FPΣ** (Sigma) expansion unit × 1, **FP0R** expansion unit × 1
	Slot for communication cassette (RS232C, RS232C x 2, RS485, RS232C and RS485)
Programming software	Control FPWIN Pro

Expandable to 384 inputs/outputs with FP0H / FPΣ (Sigma) / FP0R expansion units

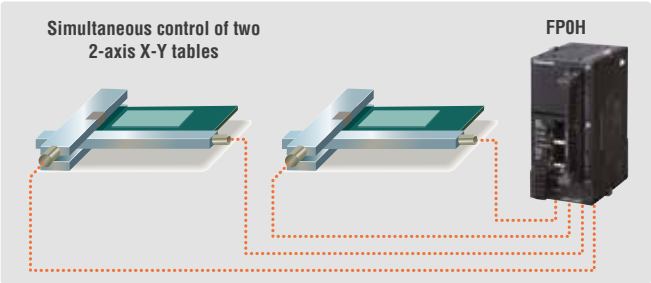


FP0H expansion I/O unit | FP0H / FPΣ (Sigma) expansion unit (max. 4 expansion units) | FP0H | FP0R expansion unit (max. 3 expansion units) | FP0R expansion unit

Suitable for ultra-fast linear servo drives

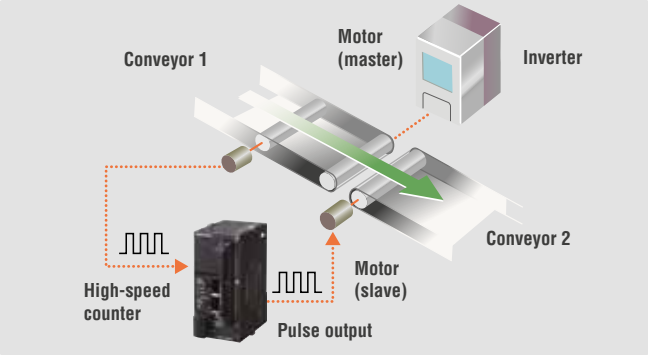
Built-in 4-axis pulse outputs

The control unit can control four axes with pulse output (up to 100kHz per axis), so simultaneous control of two 2-axis X-Y tables is possible. The configuration tool offers positioning tables to make it easy to set the parameters.



High-speed counter input

The speed of conveyor 1 (master axis), which is controlled by an inverter, is measured by counting pulse signals from the encoder with the high-speed counter input. The pulse output frequency is adjusted based on the count in order to synchronize the speed of conveyor 2 (slave axis).



Built-in multipoint PWM outputs (4 channels)

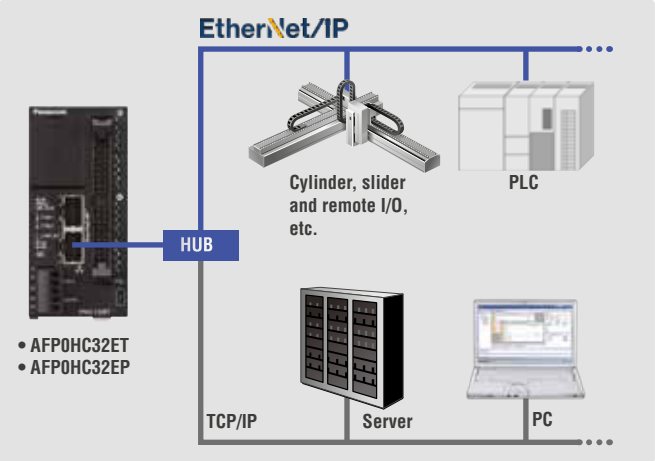
The pulse output port of FP0H can also serve as a PWM output port.

Connectivity and communication with the Ethernet type

- **EtherNet/IP, Modbus-TCP and MC protocol compatibility**
- **Easy connection to all kinds of robots and PLCs**
- **Cassette system reduces unit cost and installation space**

EtherNet/IP compatibility

The Ethernet type is compatible with EtherNet/IP, Modbus-TCP and MC protocol and can be connected easily to all kinds of robots and PLCs.



Cassette system reduces unit cost and installation space

The communication cassette system extends the serial communication functionality of the CPU without the need to buy or install a dedicated communication unit.



SD memory card slot for the logging / trace function

- **Use data logging and the trace function with SD memory cards**
- **Copy projects in ladder diagram without a PC (touch panel required)**

Logging with 4 simultaneously active files

Logging can be performed with 4 simultaneously active files using various triggers such as bit, interval, instruction, and time.



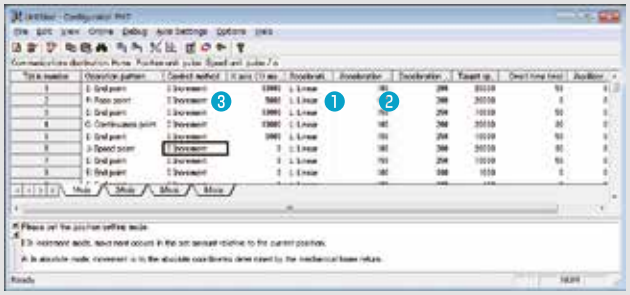
Update programs with an SD memory card

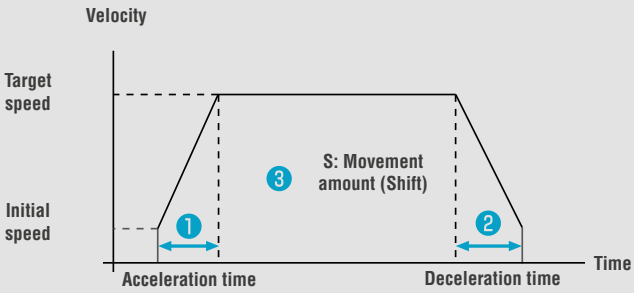
SD memory cards can be used to store programs for and from the PLC. This makes it easy to update programs quickly if necessary.



Compact motion control for Panasonic motors

Control four axes with pulse output (up to 100kHz per axis)





Configuration by **Control Configurator PMx** (integrated in our Control FPWIN Pro 7 programming software)

Suitable for ultra-fast linear servo drives

Pulse output of up to 4Mpps and fast startup in 5µs

The positioning units support ultra-fast linear servo drives with a pulse output of up to 4Mpps and fast startup in 5µs.

Ideal for applications with short-stroke actions

The FP0H positioning units are ideal for applications that repeat short-stroke actions quickly such as palletizing of electronics parts.

Built-in high-speed counter

A built-in high speed counter can detect abnormalities by counting feedback pulses from encoders during positioning.



FP0H positioning unit

Supports FPΣ (Sigma) positioning unit RTEX

The FP0H supports the three available types of FPΣ (Sigma) positioning units RTEX for controlling 2 axes, 4 axes and 8 axes. The positioning units RTEX can be used with servo drivers MINAS A5IIN / A6N for precise multi-axis position control.
The positioning units are compatible with commercially available LAN cables, which leads to a great reduction in wiring costs.
Thanks to the high communication speed of 100Mbit/s, highly accurate positioning control of multiple axes is possible.



FPΣ (Sigma) positioning unit RTEX

The Configurator PM is a reliable and user-friendly software tool for the complete process from setup through startup and operation monitoring of the functions, including specification of axes to be used, parameter setting, data table creation, JOG operation, home return, and data monitoring



Product number	AFP0HC32EP/T (with Ethernet)	AFP0HC32P/T (without Ethernet)
No. of inputs/outputs	16 inputs, 16 outputs (max. 384 with expansion units), transistor output (PNP/NPN)	
High-speed counter	Single-phase 4 channels (max. 100kHz per input) or two-phase 2 channels (max. 50kHz per input)	
Interrupt input	Total 8 inputs (with high-speed counter)	
Pulse output	4 channels (max. 100 kHz per axis)	
PWM output	4 channels, 1Hz to 70kHz (at resolution of 1000), 70.001kHz to 100kHz (at resolution of 100)	
Built-in interfaces	Ethernet port x 2, RS232C port x 1, USB port x 1	RS232C port x 1, USB port x 1
Expansion	FP0H / FPΣ (Sigma) expansion unit x 1, FP0R expansion unit x 1 Slot for communication cassette (RS232C, RS232C x 2, RS485, RS232C and RS485)	
SD memory card	Yes (SDHC)	No
Operation speed (basic instructions)	10ns (up to 10k steps)	
Program capacity	64k / 40k / 32k / 24k (depending on system register setting)	32k / 24k (depending on system register setting)
Data register	12k / 24k / 32k / 64k (depending on system register setting)	24k / 32k (depending on system register setting)
Clock/calendar function	Built-in	

LAN port communication specifications for AFP0HC32EP/T	
Communication port	100Base-TX/10Base-T Ethernet
Baud rate	100Mbit/s, 10Mbit/s auto negotiation function
Total cable length	100m (500m when a repeater is used)
Number of simultaneous connections	Max. 10 (system connection: 1, user connection: 9)
Communication method	Full-duplex / Half-duplex
Protocol	TCP/IP, UDP
DNS	Supports name servers
DHCP	Automatic IP address acquisition
SNTP	Time synchronization
Communication mode	EtherNet/IP, MEWTOCOL-COM Master/Slave, MODBUS-TCP Master/Slave, MEWTOCOL-DAT Master/Slave, program controlled (4KB per connection, 1 to 9 user connections)

Positioning units				
Product number	AFP0HPG01T	AFP0HPG02T	AFP0HPG01L	AFP0HPG02L
Output type	Transistor		Line driver	
Number of axes controlled	1	2 (independent)	1	2 (independent)
Max. operation speed	1pps to 500kpps		1pps to 4Mpps	
Functions	Linear acceleration / deceleration, S-curve acceleration / deceleration			

Communication cassettes	
Product number	Specifications
AFP0HCCS1	RS232C, 1 channel (5 pins)
AFP0HCCS2	RS232C, 2 channels (2 x 3 pins)
AFP0HCCM1	RS485, 1 channel (3 pins)
AFP0HCCS1M1	RS232C, 1 channel (3 pins) and RS485, 1 channel (2 pins, 19.2 or 115.2kbit/s)

Global Network



North America | Europe | Asia Pacific | China | Japan

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