

OpreX™ Data Acquisition

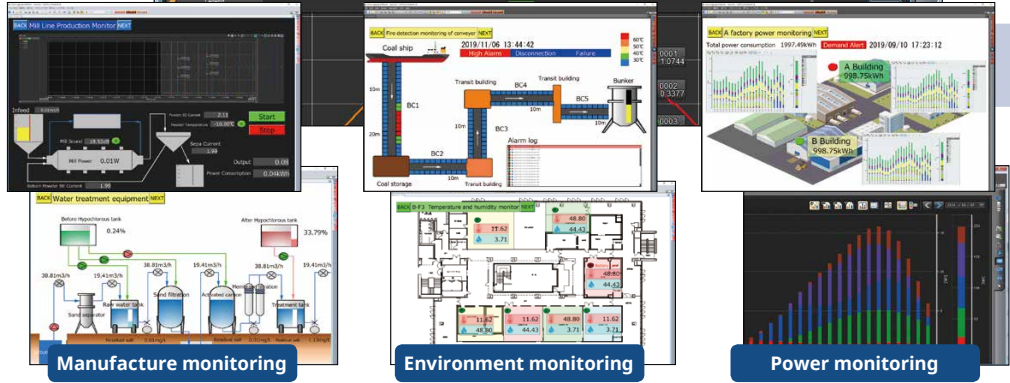
GA10

Data Logging Software

Monitor

Monitor screen depending on the application

Real-time monitoring is possible with simple settings. In addition, you can create an original monitor by customizing the monitor screen depending on your application.

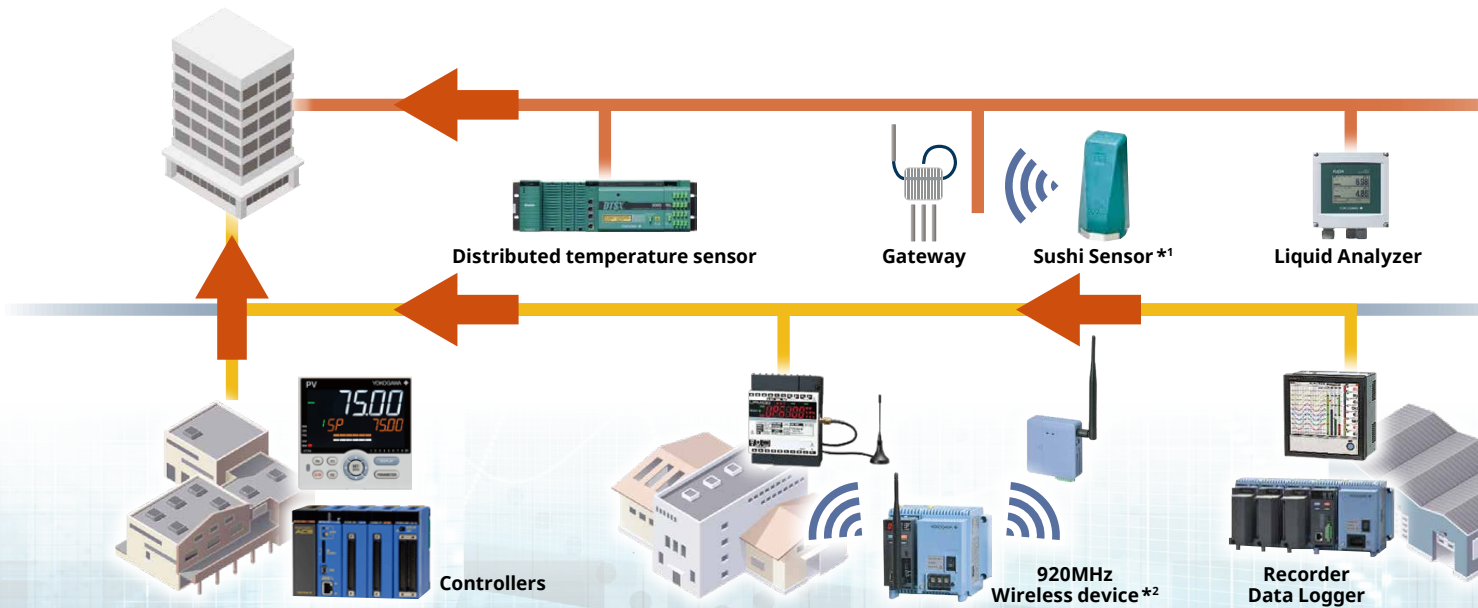


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free trial!



Monitors and a variety of ins

GA10 is a PC-based data logging application software for monitoring and recording data by connecting devices

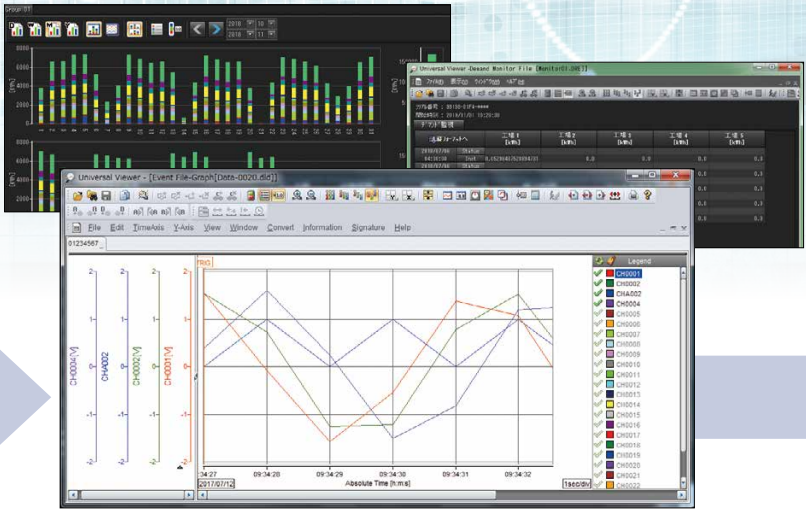
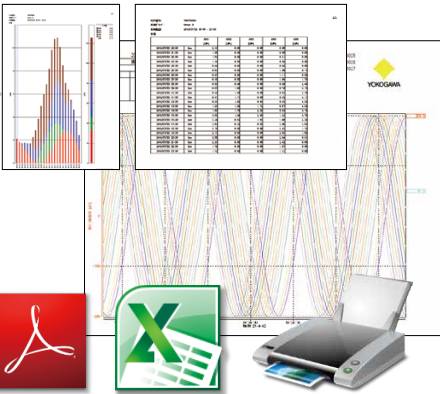


*1 Sushi Sensor XS770A is now released in Japan, south-east Asia and Europe. For other areas, Yokogawa is making efforts to expand regions by developing each region model and getting local certifications such as explosion proof and radio.
*2 GX/GP/GM/(CM□, /CS□ option), GX70SM: Sales for Japan, Korea, USA only. UPM: Sales for Japan, Korea, India, Southeast Asia and Taiwan only.

Utilize

Automatic report output to Excel, PDF or printer

Reports can be output to a printer automatically based on recorded data. Further, you can customize the layout and output the data to Excel or PDF files.



Record

Reliable monitoring and data storage

Collected data is recorded reliably in binary or Excel format. You can view the recorded data using the dedicated viewer.

records data from instruments via networks

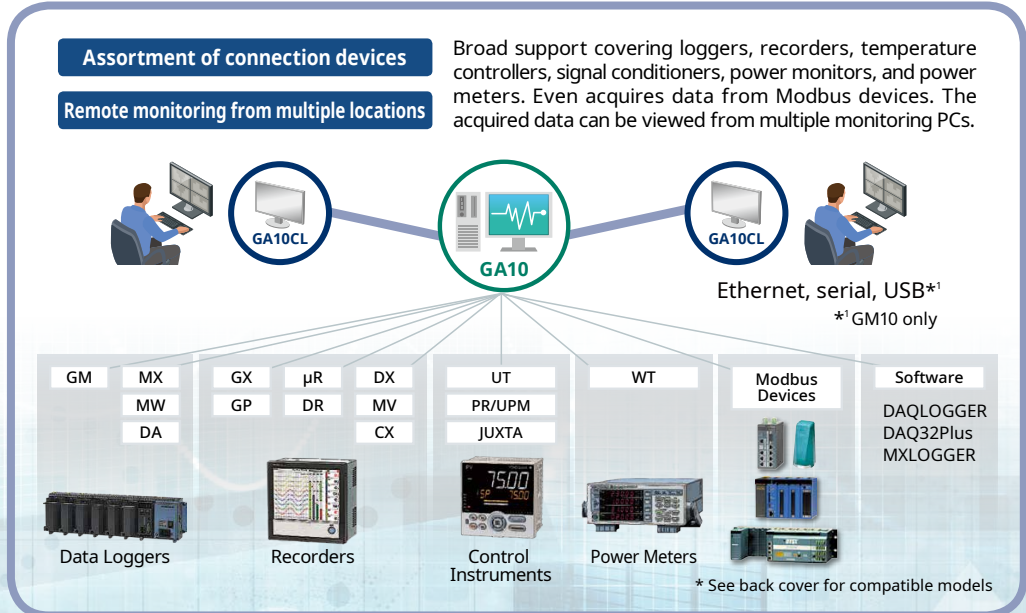
distributed in a factory or on a premises via Ethernet network.

Acquire

Collect scattered data

All the data is acquired by connecting the various devices installed in a factory to an Ethernet network.

- Maximum number of connections: 100 devices
- High-speed acquisition 100 ms or faster
- Maximum number of data tags: 2000 Tags





Basic Functions



Simple settings

Simply select the devices to connect and you are ready to acquire data. With data loggers and recorders, tag names are automatically reflected and multi-channel acquisition can be started easily. In addition, data processing is easy using the math function (option).

② Registration ③ Start monitoring

① Auto search

- Start monitoring with simple steps
- Even data processing is possible with the math function

Reliable data storage

Since recording conditions and recording data formats can be specified, data can be stored in various formats. The report function (option) enables automatic report output in Excel and PDF formats and automatic printing to a printer. Further, reports and recorded files can be automatically transferred using the FTP function.

Recording conditions can also be specified.

- When an alarm occurs
- Above a specified value
- Between specified times

NEW

FTP

- Start recording based on various conditions
- Easier to use with automatic report output and FTP transfer

Check errors quickly

Quickly check errors with the alarm monitor. When an alarm occurs, a beep is sounded on the PC. In addition, the e-mail function sends e-mails based on conditions such as alarm occurrence, specified period, specified time, and communication error.

ALARM

H L

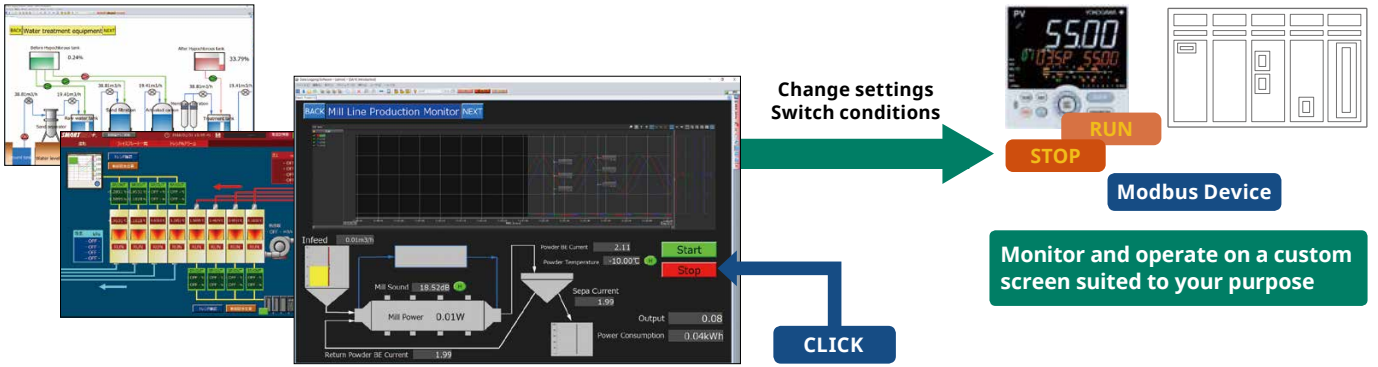
E-mail transmission

- Quickly check errors on the monitor
- Even automatic e-mail delivery

Useful Functions for Monitoring and Operation

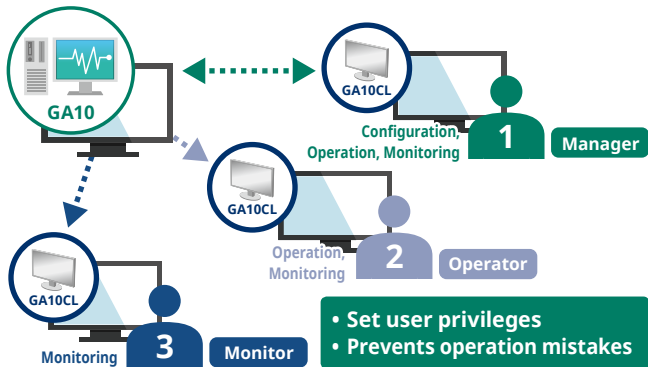
Build an easy-to-use monitoring screen

The custom display function (option) can be used to freely create a screen with your favorite design for monitoring and operation. The value of a connected device (Modbus device) can be changed by operating the buttons or the like on the custom screen.



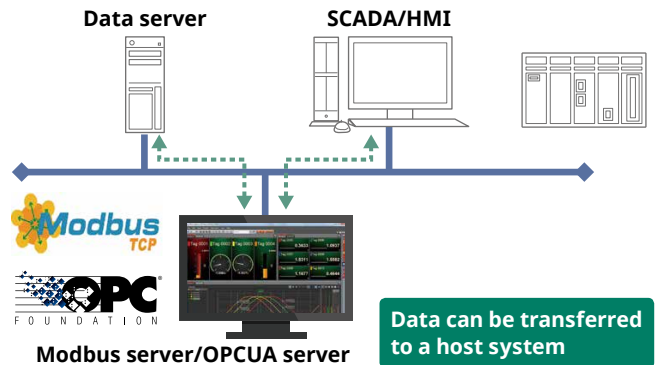
Privileges for each user

Access privileges can be assigned to each user. Select from manager (configuration, operation, monitoring), operator (operation, monitoring), and monitor (monitoring).



Transfer data to other systems

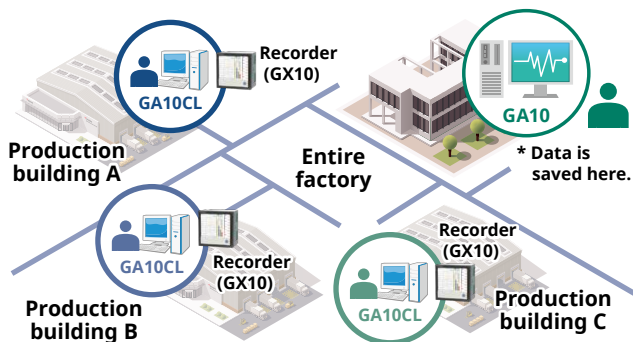
Data can be transferred to SCADA/PLC using the OPC-UA server function (option) or Modbus server function.



Examples of monitoring and operation applications

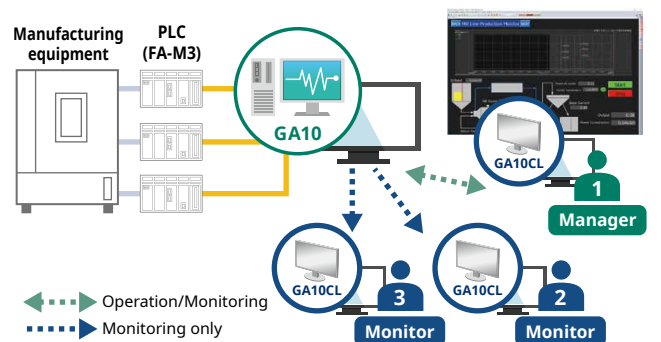
Example 1 Monitor the equipment operation status in production building

GA10 can monitor the operation status of equipment in the entire factory, summarized by each production building.



Example 2 Monitor and operate production equipment

The status of production equipment can be monitored on a custom screen. Only authorized users can operate from the screen.



Functions Useful for Evaluation and Testing

Data analysis while collecting and recording

Many useful functions are available for data analysis, which can also be used to analyze data while collecting and recording data.

Select and display only the waveforms of interest

When a range is specified, the maximum, minimum, average, and the like between the two points are calculated on the spot.

Range 11:00 to 12:00
Maximum: XXXX
Minimum: YYYY
Average: AAAA

Play back data all the way back to when recording was started, even during recording

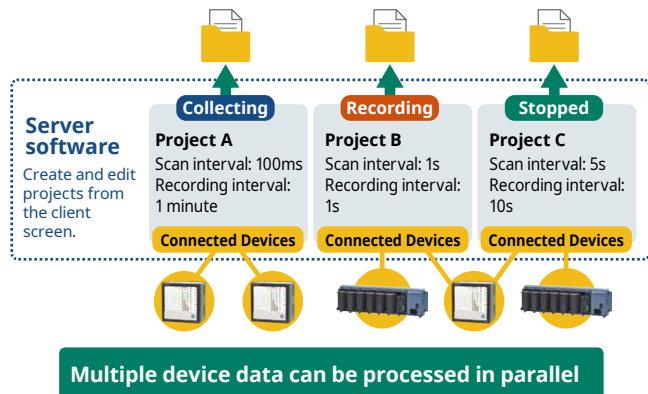
Detailed analysis with a dedicated viewer even during recording

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Data can be analyzed during evaluation and testing

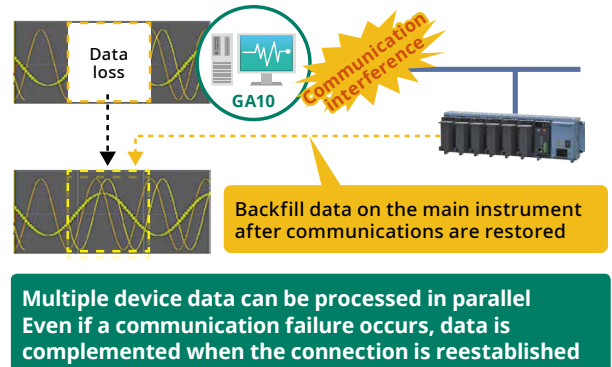
Multiple projects

Recording is possible using separate timings for each piece of test and production equipment (up to 30 projects can run simultaneously).



High reliability

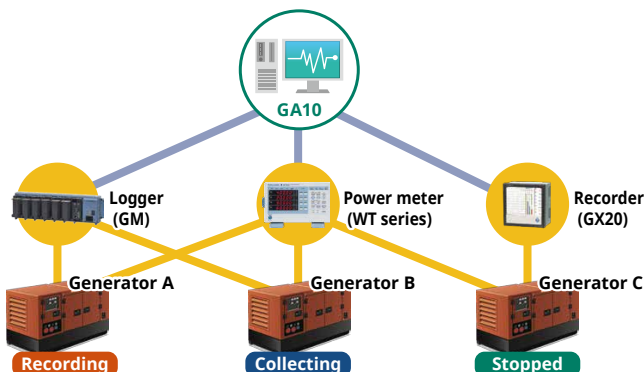
The data storage function (backfill function) automatically complements data when communication is disconnected (set the acquisition mode to Device time, when a GX/GP/GM/DX/MV is in use).



Examples of evaluation and experiment applications

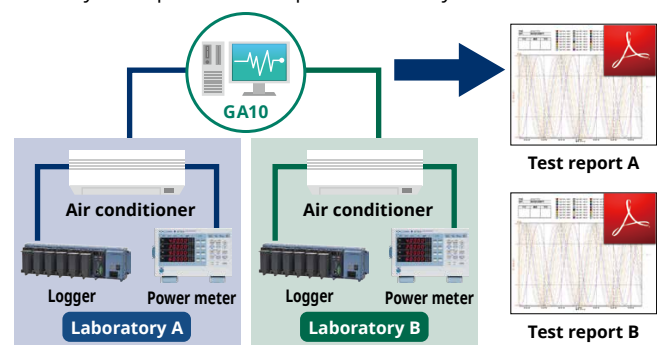
Example 1 Simultaneous evaluation tests of multiple generators

Evaluation tests can be performed on different types of generators in parallel in multiple projects.



Example 2 Air conditioner performance test

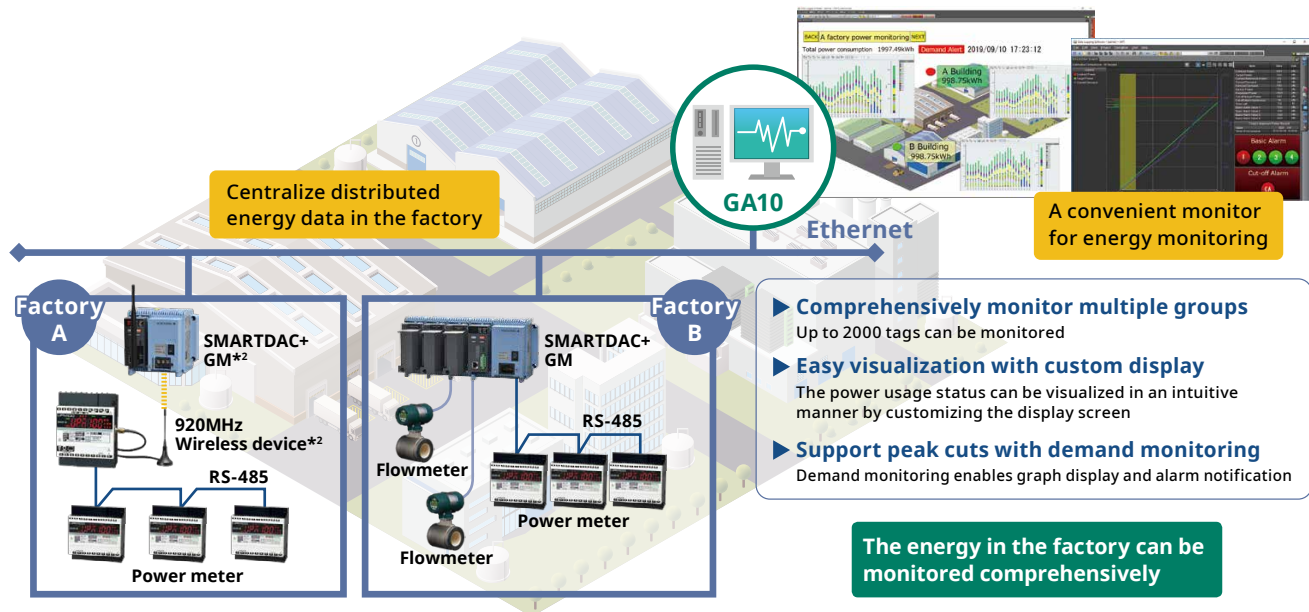
In an air conditioner performance test, data from all laboratories can be collected, and the recorded data can be saved for each room. A weekly test report can be output automatically.



Factory Visualization

Support for visualizing power **NEW**

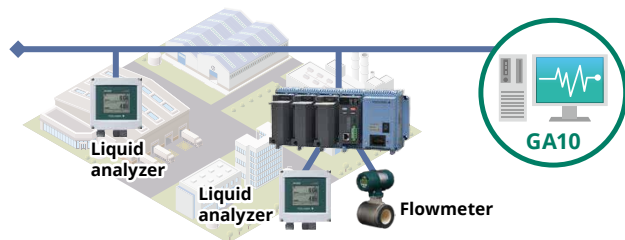
The integration display function (option) collects electrical energy and flow rate data measured by wattmeters and flowmeters and helps to visualize energy with integration graphs and demand monitoring. In addition, the report function can be used to automatically output daily and monthly reports.



Examples of factory visualization applications

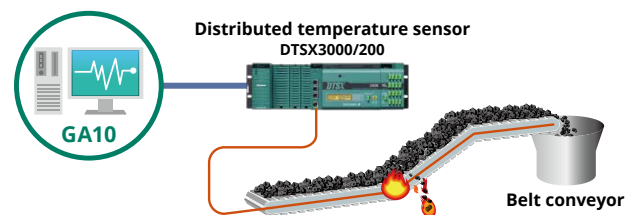
Example 1 Monitoring of factory wastewater treatment

Data such as ph, turbidity, odor, and flow rate of wastewater treatment equipment can be collected with GM10 (Data Logger) or directly, and the entire wastewater treatment can be monitored on GA10.



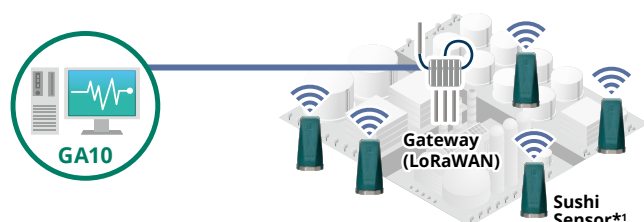
Example 2 Fire detection of belt conveyors

DTSX (optical fiber temperature sensor) is used to measure the temperature of the belt conveyor at intervals of 1 m. Fires can be detected easily with the GA10's color-coded display.



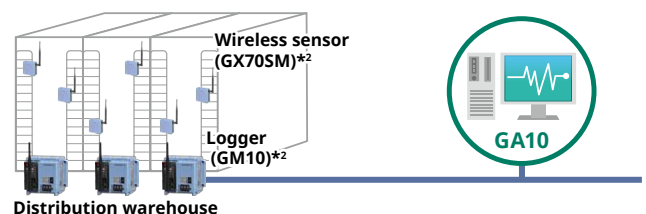
Example 3 Detection of abnormal signs in equipment

Sushi sensors (XS770A/integrated wireless vibration sensor) are installed on compressors and motors, and data is collected by GA10. This data can be used to detect abnormal signs and analyze failures.



Example 4 Temperature and humidity monitoring of a warehouse

GX70SM (battery type wireless temperature sensor) is installed in a warehouse, and the temperature, humidity, and battery status are collected by GA10. This allows the warehouse to be monitored without worrying about the sensor battery.



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Specifications (Overview)

- Max. connectable units: 100
- Max. recording tags (channels): 2000
- Max. recording MATH tags (channels): 2000
- Max. connectable clients: Unlimited (verified with 32)
- Scan interval: 100 ms or higher (using PC time), or scan interval of instruments (using instrument time)

Operating Environment

OS	Windows 7, Windows 8.1, Windows 10, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows Server 2016
CPU	Pentium 4, 3.2 GHz or faster (or equivalent), 64-bit OS recommended
Main memory	2GB or more
Hard disk	500MB or more of free space, 2GB NTFS recommended.
Display	A resolution of 1024 x 768 or higher, 65,536 colors (16-bit, high color) or more
Communication port	RS-232, Ethernet, or USB port* supporting the OS* Use a converter (ML2 recommended) for RS-422/485 communication.

*GM10 only

Connectable Devices and Software

	Products to be connected
Data Logger	GM10, MX100, MW100, DA100
Recorder	GX10, GX20, GP10, GP20, DX1000, DX1000N, DX2000, DX1000T, DX2000T, FX1000, FW1000, MV1000, MV2000, CX1000, CX2000, μ R10000, μ R20000, DR130, DR230, DR240
Control Instrument	UT75A, UT52A, UT55A, UT35A, UT32A, UP55A, UP35A, UM33A, YS1500, YS1700 Connect the following as Modbus instruments FA-M3V (F3SP7x), PR300, UPM100, UPM101, VJU7, VJS7, VJA7, VJH7, VJP8, VJQ7, VJQ8, VJX7, MVHK, MVRK, MVTK
Power Meter	WT300, WT500, WT1800*, WT1600*, WT3000, WT3000E
Modbus Device	Instruments supporting Modbus communication
Software	DAQLOGGER, DAQ32Plus, MXLOGGER

* Free connection software GateWT for GA10 available

Model and Suffix Codes

● Data logging software

Model	Suffix Code	Optional Suffix Code	Description
GA10			Data Logging Software Basic license
Number of channels	-01		100ch
	-02		200ch
	-05		500ch
	-10		1000ch
	-20		2000ch
Optional features		/RP	Report/Print function
		/MT	Math function (Max. 2000 ch)
		/UA	OPC-UA server function
		/CG	Custom display function
		/WH	Integration display function*

*/MT option must be separately specified when the /WH is selected.

● If adding channels or features

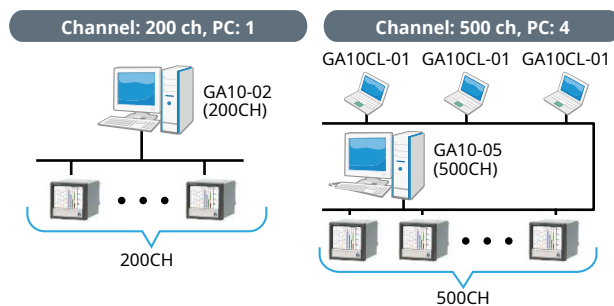
Model	Suffix Code	Description
GA10UP		Upgrade license for GA10
Upgrade	-01	Channel upgrade 100 ch \Rightarrow 200 ch, 200 ch \Rightarrow 500 ch, 500 ch \Rightarrow 1000 ch, 1000 ch \Rightarrow 2000 ch
	-02	Channel upgrade 100 ch \Rightarrow 500 ch, 200 ch \Rightarrow 1000 ch, 500 ch \Rightarrow 2000 ch
	-03	Channel upgrade 100 ch \Rightarrow 1000 ch, 200 ch \Rightarrow 2000 ch
	-04	Channel upgrade 100 ch \Rightarrow 2000 ch
	-RP	Add Report/Print function
	-MT	Add Math function (Max. 2000 ch)
	-UA	Add OPC-UA server function
	-CG	Custom display function
	-WH	Integration display function*

* If the GA10 does not have the math function (/MT), you also need to upgrade to add the math function (-MT).

● If increasing the number of monitoring PCs (clients)

Model	Suffix Code	Description
GA10CL		Client license for GA10
Number of licenses	-01	1 license
	-05	5 licenses
	-10	10 licenses
	-50	50 licenses

● Configuration example



● Software Download

Download software from our website. Enter your license key in the trial version to unlock the full version.

● The user's manual Can be downloaded from the website.

● For DAQWORX customers

An introductory guide for GA10 is available. You can also use your existing instrument and software as-is. Target software: DAQLOGGER, DAQ32Plus, MXLOGGER
* See the website for details.

Web site >> <http://www.smartdacplus.com/en/>



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AZ-S-1E
Printed in Japan, 911(AZ) [Ed:04/d]