Factory Gateway (FGW)

RS-232/RS-422 Serial to Ethernet HMI Network Protocol Converter

The Factory Gateway operates as a protocol converter enabling direct communications between host controllers or retrofitting legacy RS-232 or RS-422 serial devices into today's Ethernet networks.
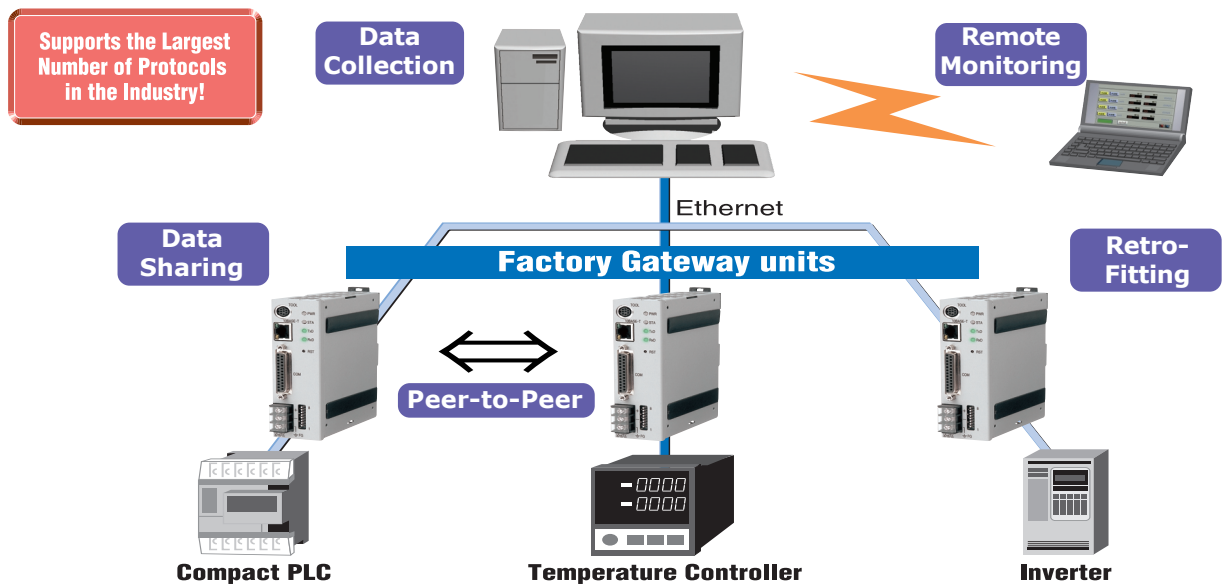
Peer-to-Peer information exchange in a bidirectional format is supported between host PLC controllers using the Factory Gateway. The unit can also be configured to interface temperature, PID, and level controls to an Ethernet based communications network connected to Windows-based SCADA software.

The Factory Gateway is configured using Pro-face's very popular GP-PRO 03 HMI Development software package. A wide variety of serial and Ethernet protocols are available to interface to most industrial-based equipment. Combined with GP Pro Server for Windows allows seamless information exchange and data collection between factory floor I/O and controller devices to the control room.

FGW-SE41-24V

CE UL cUL

FEATURES

- Serial to Ethernet Network Converter
- Peer-to-Peer Communications
- Ideal for Factory Retrofits

- RS-232/422 Com Port Configurable
- Stores HMI Application Image in Unit for Remote Monitoring
- 10-BaseT Ethernet

- UL, cUL Certified
- DC Powered
- DIN Rail Mounted

INFORMATION & COMMUNICATION

Supports the Largest Number of Protocols in the Industry!

Data Collection

Remote Monitoring

Ethernet

Data Sharing

Factory Gateway units

Retro-Fitting

Peer-to-Peer

Compact PLC   **Temperature Controller**   **Inverter**

Data Aquisition Applications

Data Collection
Collect production data and replay the data for system analysis.

Pro·Server
with Pro-Studio

Data Sharing
Transfer collected production data to common PC applications via ADO, DDE, DLL, OPC, or SQL interfaces.

For daily reports

For historical data

Remote Monitoring by PC and by Internet

Data Monitoring
Simple and quick remote monitoring using graphic data stored in Factory Gateway units.

GP·Viewer

Multi-point Remote Monitoring via a Web Server
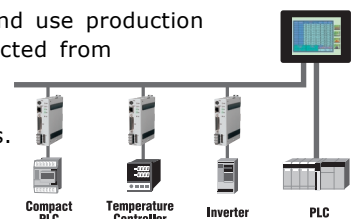Build a monitoring system using the Internet or an intranet.

GP·Web

Protocol Conversion

Protocol Conversion
Link PLCs of same or different manufacturers without special programming.

Factory Retro-Fits
Monitor and use production data collected from factory-floor controllers.

Compact PLC   Temperature Controller   Inverter   PLC

FACTORY GATEWAY SPECIFICATIONS

FUNCTIONAL SPECIFICATIONS

Models		FGW-SE41-24V
Interfaces	Serial (COM 1) Interface	Asynchronous Transmission Method: RS-232C / RS-422, Data Transmission Speed: 2400bps to 187.5kbps, Data Length: 7 or 8 bits, Parity Stop Bit: 1 or 2 bits, Parity: None, Odd or Even
	Tool Connector	Asynchronous TTL level nonprocedural command interface
	Ethernet Interface	IEEE802.3 (10Base-T)

GENERAL SPECIFICATIONS

Electrical	Input Voltage	DC 24V (DC 19.2V to DC 28.8V)
	Voltage Endurance	AC 500V, 20mA for up to 1 minute (between charging and FG terminals)
Environmental	Power Consumption	10W or less
	Ambient Operating Temp.	0°C to 55°C
	Storage Temperature	-20°C to 60°C
	Storage Humidity	10%RH to 90%RH (non-condensing, wet bulb temperature: 39°C or less)
	Vibration Resistance	IEC61131-2(JIS B 3501)Compliant When vibration is NOT continuous:10Hz to 57Hz 0.075mm, 57Hz to 150Hz 9.8m/s^2 When vibration is continuous:10Hz to 57Hz 0.035mm, 57Hz to 150Hz 4.9m/s^2; X, Y, Z directions for 10 times (80min.)
	Shock Resistance	IEC61131-2 (JIS B 3501) Compliant; 147m/s^2, X, Y, Z directions for 3 times
Structural	Electrostatic Discharge	Immunity: 6kV (IEC 61000-4-2 Level 3)
	Installation	DIN rail mount
	Agency Certifications	EN55011 class A, EN61000-6-2, UL508, CAN/CSA-C22.2 No.1010
	External Dimensions	W37[1.46] x H131[5.16] x D105[4.13] mm[in.] (excluding projections)
	Weight	0.6kg [1.3lb.] or less (main unit only)

Examples of functions made possible by combining Factory Gateway with optional software.

Legend: **S** Pro-Server with Pro-Studio for Windows | **G** GP-PRO/PBIII C-Package03 | **V** GP-Viewer | **W** GP-Web

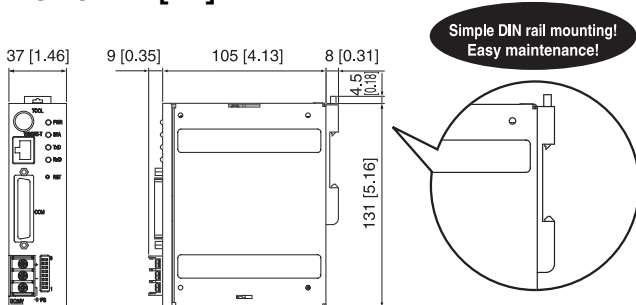| Function		Description	Design S	Design G	Operation S	Operation V	Operation W
Data Collection	Protocol Conversion	Conversion of serial communication protocols to allow Ethernet for data collection on a host computer. Allows access to data from PLCs, temperature controllers, inverters, and others. More than 200 protocols and 800 models supported.	●	–	●	–	–
Data Distribution	Data Distribution	Enables easy data exchange between connected controllers at user-defined preset timing or triggered event.*1	●	–	–	–	–
	GP/GLC Communications	Allows not only PLC but other industrial equipment to be easily displayed on GP/GLC or PC units.	●	●	●	–	–
Data Use	Collection	Enables easy data collection at preset timing or event. Combination with GP-Viewer also allows graphical display of data.	●	–	●	▲*3	–
	Playback	Enables easy playback of accumulated data. Desired time periods are reproduced via remote server PC.	●	–	●	–	–
	Application Support	Comprehensive server type functions, including OPC, DDE, DLL, and API, enable data exchange with a wide range of SCADA software	●	–	●	–	–
Remote Monitoring	Remote Monitoring	Simple and quick graphical monitoring of past and present production screen data that is stored in Factory Gateway units.	●	●	●	●	–
	Enhanced Internet Monitoring	Further enhances the remote monitoring function to enable easy monitoring via the Internet.*2	●	●	●	–	●

*1 Data transfer speed varies depending on the communications speed of Factory Gateway and the connected devices. (1s minimum)
*2 Requires a separate PC. No software necessary in the remote client PC.
*3 Certain feature restrictions apply.

EXTERNAL DIMENSIONS

Unit: mm [in.]

37 [1.46]   9 [0.35]   105 [4.13]   8 [0.31]   4.5 [0.18]   131 [5.16]

Simple DIN rail mounting! Easy maintenance!

MANUFACTURING DEVICES / PLCs

PLCs:
Fanuc
FATEK
Fuji
GE Fanuc Automation
Hitachi
Izumi/Idec
Keyence
Koyo/PLC Direct
Matsushita Electric
Matsushita Electric Works/NAIS
Mitsubishi
Modicon
Omron
ORIM VEXTA
Rockwell (Allen-Bradley)
Sharp
Shinko
Siemens (SIMATIC)
Toshiba
Toshiba Machine
Toyota
Yaskawa
Yokogawa

Invertors:
Fuji
Mitsubishi

Servos:
Matsushita Electric

Temperature Controllers:
Fuji
Toho
OMRON
RKC
Shinko Technos
Yamatake
Yokogawa M&C

ORDERING INFORMATION

ORDER NUMBER	DESCRIPTION
FGW-SE41-24V	Ethernet w/ RS-232/RS-422 Serial Port, 4MB mem, 24VDC, UL/cUL, CE

OPTIONAL ACCESSORIES

GPW-CB02	RS-232 HMI Programming Cable: Connects HMI to PC Port 9 pin D-Sub
GPW-CB03	HMI Programming Cable: Connect HMI to PC USB port

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