

General Specifications

Application Portfolios for FCN/FCJ



GS 34P02P20-01E

■ GENERAL

This GS describes the application portfolios for FCN/FCJ.

The Application Portfolios for FCN/FCJ are series of engineering parts to be used on Logic Designer, which is the FCN/FCJ's engineering tool.

Complicated functions composed of independent programs can be encapsulated into a single part called a Program Organization Unit (POU).

The Application Portfolios for FCN/FCJ is a set of various POU's, developed by Yokogawa, according to their processes and applications.

Thanks to these high-quality, high-performance parts, engineering efficiency is dramatically improved.

(Application Portfolio(s), though written in title cap, is not the name of a specific product, but is a bundle of software parts.)

Notation in this document:

- The term "FCN" refers to the module consisting type autonomous controllers.
- The term "FCN-500" refers to the autonomous controllers with NF501/NF502 CPU module.
- The term "FCN-100" refers to the autonomous controllers with NF100 CPU module.
- The term "FCN-RTU" refers to the low power autonomous controllers with NF050 CPU module.
- The term "FCJ" refers to the all-in-one type autonomous controllers.

■ FEATURES

- Package of software parts (POUs) selected from Yokogawa's expertise of control system.
- Documentation of control specifications and application examples (including an operation monitoring window) is bundled to POU's for further advanced control systems.
- Application portfolios include:
 - [Basic Portfolio]
 - PAS Portfolio
 - SAMA Portfolio
 - Webmetry Basic Library Portfolio (GS 34P02P50-01E)
 - Time Synchronization Server Portfolio
 - [Communication Portfolio]
 - FA-M3 Communication Portfolio
 - MELESEC-A Communication Portfolio
 - SYSMAC Communication Portfolio
 - Modbus Communication Portfolio (GS 34P02P21-01E)
 - DNP3 Communication Portfolio (GS 34P02P22-01E)
 - Power Monitor Communication Portfolio
 - Temperature Controller Communication Portfolio
 - [Application-specific Portfolio]
 - Boiler Control Portfolio
 - Boiler Auxiliary Control Portfolio
 - Gas Flow Calculation Portfolio (GS 34P02P31-01E)
 - [Java Package]
 - InfoWell (GS 34P02P51-01E)
 - Graphic Portfolio (InfoWell) (GS 34P02P52-01E)
 - Logging Portfolio (InfoWell) (GS 34P02P53-01E)
- Simply copying an application example and modifying it to suit the application will build a complex control system effortlessly and with reliability.

■ FUNCTION SPECIFICATIONS

The application portfolio can be used in controller type as shown in the following table.

Table Application Portfolio

Application Portfolios	Controller type (CPU Module)				
	FCN-500 Standard (NF501-S□□/ NF502-S□□) (*1)	FCN-500 Extended (NF501-W□□/ NF502-W□□) (*1)	FCN-100 (NF100)	FCN-RTU (NF050-S1□)	FCJ (NFJT100)
PAS Portfolio		X	XX	X	XX
SAMA Portfolio			XX		XX
Webmetry Basic Library Portfolio			XX		XX
Time Synchronization Server Portfolio	X	X	XX		XX
FA-M3 Communication Portfolio	X	X	XX	X	XX
MELSEC Communication Portfolio	X	X	XX	X	XX
SYSMAC Communication Portfolio	X	X			XX
Modbus Communication Portfolio	X	X	XX	X	XX
DNP3 Communication Portfolio	X	X	XX	X	XX
Power Monitor Communication Portfolio			XX		XX
Temperature Controller Communication Portfolio			XX		XX
Boiler Control Portfolio License			XX		XX
Boiler Auxiliary Control Portfolio License			XX		XX
Gas Flow Calculation Portfolio		X	XX	X	XX
Web Application Portfolio (InfoWell)			XX	X	XX
E-mail Application Portfolio (InfoWell)			XX	X	XX
Graphic Portfolio (InfoWell)			XX	X	XX
Logging Portfolio (InfoWell)			XX	X	XX

X: Standard, XX: Option

*1: In FCN-500 and FCN-RTU, licenses can not be added later on.

● Basic Portfolios

PAS Portfolio

From among a range of function blocks used in Yokogawa's distributed control systems, functions that are difficult to achieve with IEC61131-3 are chosen and redesigned for IEC61131-3-stipulated languages. PAS Portfolio provides:

- Regulatory control blocks, such as indicator, PID controller, and manual loader blocks, featuring easy-to-use instrument faceplates as an operation interface.
- Various calculation blocks featuring frequently used functions such as a line-segment function, time-delay, temperature and pressure correction.
- Sequence control blocks such as preset timers/counters and switch instrument blocks facilitating development of sequence logic and operation and monitoring functions.
- Using Logic Designer, simply performing wiring between blocks will achieve complex calculations, mode control logic, tracking logic, and more.
- Faceplates corresponding to each POU are prepared on VDS. Using VDS together with PAS Portfolios, workloads of engineering for operation and monitoring functions will be reduced.

SAMA Portfolio

Provides calculation functions compliant with Scientific Apparatus Makers Association (SAMA) and often used in power processes.

- Assembling simple calculation functions such as adder, high/low limiter, and PID blocks will build an advanced control function.
- Regardless of using a larger number of function blocks than when using PAS Portfolio, a loop diagram based on SAMA Portfolio facilitates much easier identification of a loop's functions.
- Use PAS Portfolio together to enable operation and monitoring of a loop diagram based on SAMA Portfolio.

Webmetry Basic Library Portfolio

The Webmetry Basic Library Portfolio is used to facilitate creation of Web-based monitor applications that run on the FCN/FCJ Java functions. For more details, refer to GS 34P02P50-01E, "Webmetry Basic Library Portfolio."

Time Synchronization Server Portfolio

FCN/FCJ enables time synchronization among equipment supporting SNTP (Simple Network Time Protocol). FCN/FCJ can operate as an SNTP server or an SNTP client. FCN/FCJ requires time synchronization server portfolios in order to become an SNTP server.

In FCN-500, when the CPU setup is enabled, a time synchronization server will start automatically.

In FCN-100 or FCJ, when the time synchronization server portfolio license is installed, a time synchronization server will start automatically.

For details, refer to GS 34P02Q01-01E "FCN/FCJ Autonomous Controller Functions."

● Communication Portfolios

Communication portfolios provide STARDOM's controllers with functionality to directly communicate with different controllers and devices.

- Simple settings in communication devices are all needed for bi-directional communication.
- For the Modbus Communication Portfolio, refer to GS 34P02P21-01E "Modbus Communication Portfolio."
- For the DNP3 Communication Portfolio, refer to GS 34P02P22-01E "DNP3 Communication Portfolio."

● Application-specific Portfolios

Application-specific Portfolios are packages of control functions developed by drawing on Yokogawa's years of experience configuring control systems and tailored to a specific process or equipment unit.

- Combined with functions in PAS and/or SAMA Portfolios, Application-specific Portfolios help achieve especially hard-to-configure calculation assemblies.

● Java Package

InfoWell

The InfoWell is designed to allow use of control application data by web screen or e-mail without programming. For details, refer to GS 34P02P51-01E "InfoWell."

Graphic Portfolio (InfoWell)

Graphic Portfolio (InfoWell) runs on an autonomous controller FCN-100, FCN-RTU and FCJ to show a graphical screen on the Web browser of a PC.

For details, refer to GS 34P02P52-01E "Graphic Portfolio (InfoWell)."

Logging Portfolio (InfoWell)

Logging Portfolio (InfoWell) runs on an autonomous controller FCN-100, FCN-RTU and FCJ to accumulate data of the control application.

For details, refer to GS 34P02P53-01E "Logging Portfolio (InfoWell)."

■ OFFERINGS

The following Application Portfolios are offered.

● Basic Portfolios

PAS Portfolio

PAS portfolios provide NPAS POU's that use engineering quantities (*1) for data.

*1: Data with an engineering unit-based value

Table NPAS Input/Output Data Processing POU (*1)

POU Name	Description
NPAS_AI_ANLG	Standard analog input
NPAS_AI_TEMP	Measured temperature input
NPAS_AI_PULS_QT	Exact totalization pulse train input
NPAS_AI_PULS_CI	Control priority type pulse train input
NPAS_AI_PCNT	Regularized data (%) input
NPAS_AI_FREQ	Frequency input
NPAS_AI_REAL	Real data input
NPAS_AI_DINT	DINT data analog input
NPAS_AI_UDINT	UDINT data analog input
NPAS_AO_ANLG	Standard analog output
NPAS_AO_PCNT	Regularized data (%) output
NPAS_AO_REAL	Real data output
NPAS_AO_DINT	DINT data analog output
NPAS_AO_UDINT	UDINT data analog output
NPAS_DI_STS	Status input
NPAS_DI_PUSHB	Push button input
NPAS_DI_WORD	WORD data contact input
NPAS_DO_STS	Status output
NPAS_DO_STS_PW	Pulse width output (reset of accumulation type)
NPAS_DO_STS_PW2	Pulse width output (continuation of accumulation type)
NPAS_DO_STS_PWH	High resolution pulse width output
NPAS_DO_STS_TP	Time-proportional ON/OFF output
NPAS_DO_WORD	WORD data contact output
NPAS_FFI_ANLG	FF-H1 analog input
NPAS_FFI_STS	FF-H1 status input
NPAS_FFI_USINT	FF-H1 Discrete Input
NPAS_FFO_ANLG	FF-H1 analog output
NPAS_FFO_STS	FF-H1 status output
NPAS_FFO_USINT	FF-H1 Discrete Output
NPAS_AI_HART	HART variable input

*1: These POU's can be used without PAS Portfolio License (NT8001J).

Table NPAS POU (1/2)

POU Name	Description
NPAS_FFRD_ANLG	FF-H1 analog data reading
NPAS_FFRD_STS	FF-H1 status data reading
NPAS_FFRD_DINT	FF-H1 integer data reading
NPAS_FFWT_ANLG	FF-H1 analog data writing
NPAS_FFWT_STS	FF-H1 status data writing
NPAS_FFWT_DINT	FF-H1 integer data writing
NPAS_PVI	Indicator block
NPAS_PID	PID controller block
NPAS_PI_HLD	Sampling PI controller block
NPAS_ONOFF	Two-position on/off controller block
NPAS_ONOFF_G	Three-position on/off controller block
NPAS_MLD	Manual loader block (without output tracking)
NPAS_MLD_PB	Manual loader block (with output pushback)
NPAS_MLD_BT	Manual loader block (with bias tracking)
NPAS_RATIO	Ratio set block (without ratio tracking)
NPAS_RATIO_RT	Ratio set block (with ratio tracking)
NPAS_PG_L30	30-zone program set block (without bumpless switching)
NPAS_PG_L30_BP	30-zone program set block (with bumpless switching)
NPAS_VELLIM	Velocity limiter block (without output pushback)
NPAS_VELLIM_PB	Velocity limiter block (with output pushback)
NPAS_AS_H	Auto-selector block (high signal selector)
NPAS_AS_M	Auto-selector block (medium signal selector)
NPAS_AS_L	Auto-selector block (low signal selector)
NPAS_FOUT	Cascade signal distributor block
NPAS_FFSUM	Feedforward signal summing block (without balancing)
NPAS_FFSUM_BL	Feedforward signal summing block (with balancing)
NPAS_XLMT_S	Single cross-limit
NPAS_XLMT_D	Double cross-limit
NPAS_BSET_F	Batch set block for flow measurement
NPAS_BSET_LW	Batch set block for weight measurement
NPAS_SW_13 (SW_31)	One-pole three-position selector switch block
NPAS_SW_19 (SW_91)	One-pole nine-position selector switch block

Table NPAS POU (2/2)

POU Name	Description
NPAS_BPLS_SW	Bumpless switching block
NPAS_SI_1	Switch instrument block with 1 input
NPAS_SI_2	Switch instrument block with 2 inputs
NPAS_SO_1	Switch instrument block with 1 output
NPAS_SO_2	Switch instrument block with 2 outputs
NPAS_SIO_11	Switch instrument block with 1 input and 1 output
NPAS_SIO_12	Switch instrument block with 1 input and 2 outputs
NPAS_SIO_21	Switch instrument block with 2 inputs and 1 output
NPAS_SIO_22	Switch instrument block with 2 inputs and 2 outputs
NPAS_TM	Timer with preset value
NPAS_CT	Counter with preset value
NPAS_BCD_C116	16-bit BCD input block
NPAS_BCD_CO16	16-bit BCD output block
NPAS_LDLAG	Lead/lag
NPAS_DLAY	Dead time
NPAS_AVE_M	Moving average
NPAS_AVE_C	Cumulative average
NPAS_FUNC_VAR	Variable line-segment function
NPAS_TP_CFL	Temperature and pressure correction
NPAS_T_CFL	Temperature correction
NPAS_P_CFL	Pressure correction
NPAS_ASTM1	Old JIS-based ASTM correction
NPAS_ASTM2	New JIS-based ASTM correction
NPAS_SQRT_LC	Square root extraction with low-input cutoff
NPAS_BDBUF_R	Data buffer for real data
NPAS_BDBUF_T	Data buffer for time data
NPAS_AI2SW_A	Dual signal selector (type A)
NPAS_AI2SW_B	Dual signal selector (type B)
NPAS_AI3SW	Analog-input 2-out-of-3 circuit
NPAS_SL2SW_A	High-low range switching (type A)
NPAS_SL2SW_B	High-low range switching (type B)
NPAS_PB6	Six-pushbutton block
NPAS_RS8_A	Eight-input resource scheduler (permission non-holding)
NPAS_RS8_B	Eight-input resource scheduler (permission holding)

SAMA Portfolio

POU Name	Description
SD_S_MON2	Two-point (HI/LO) monitor switch
SD_S_MON4	Four-point (HH/HI/LO/LL) monitor switch
SD_S_SQRT	Square root extractor with low-input cutoff
SD_S_LAG	Lag
SD_S_AVE	Moving average
SD_S_LDLAG	Lead/lag
SD_S_DLY	Dead time
SD_S_LEAD	Derivative
SD_S_INTEG	Integration
SD_S_FX	Line-segment function
SD_S_HSEL	High signal selector
SD_S_MSEL	Medium signal selector
SD_S_LSEL	Low signal selector
SD_S_RLIM	Rate limiter
SD_S_HLLIM	High/low limiter
SD_S_GB	Gain and bias calculation
SD_S_ADD2	Adder
SD_S_DIF2	Subtractor
SD_S_MUL2	Multiplier
SD_S_DIV2	Divider
SD_S_TSW	Signal selector (without output tracking to target value)
SD_S_TSW2	Signal selector (with output tracking to target value)
SD_S_PID	PID calculation
SD_S_MA	Manual loader
SD_S_AND4	Four-input AND
SD_S_AND8	Eight-input AND
SD_S_OR4	Four-input OR
SD_S_OR8	Eight-input OR
SD_S_NOT	NOT
SD_S_WOUT	Wipeout
SD_S_TDWO	Time delay wipeout
SD_S_RTRG	Rising-edge trigger
SD_S_FTRG	Falling-edge trigger
SD_S_FFS	Set-dominant flip-flop
SD_S_FFR	Reset-dominant flip-flop
SD_S_OND	On-delay
SD_S_OFD	Off-delay

● Communication Portfolios

FA-M3 Communication Portfolio

POU Name	Description
SD_CFAM3E_OPEN (*1)	Communication channel opening (*4)
SD_CFAM3E_BRD256 (*1)	Bit device reading (max. 256 points)
SD_CFAM3E_WRD064 (*1)	Word device reading (max. 64 points)
SD_CFAM3E_WRD502 (*1)	Word device reading (max. 502 points)
SD_CFAM3E_BWR256 (*1)	Bit device writing (max. 256 points)
SD_CFAM3E_WWR064 (*1)	Word device writing (max. 64 points)
SD_CFAM3E_WWR498 (*1)	Word device writing (max. 498 points)
SD_CPCLINKM_OPEN (*2, *3)	Communication channel opening
SD_CPCLINKM_BRD (*2, *3)	Bit device reading
SD_CPCLINKM_WRD (*2, *3)	Word device reading
SD_CPCLINKM_BWR (*2, *3)	Bit device writing
SD_CPCLINKM_WWR (*2, *3)	Word device writing
SD_CPCLINKM_WRW (*2, *3)	Random word device writing

- *1: Ethernet communication.
- *2: Serial communication.
- *3: These POUs can also be run with the license for FA-M3 Communication Portfolio, Power Monitor Communication Portfolio or Temperature Controller Communication Portfolio.
- *4: Total number of the following POUs shall be up to 32 in FCN/FCJ since each POU occupies one channel.
 - SD_FCXPE_OPEN (Ethernet Communication Function Block)
 - SD_CMELSECE_OPEN and SD_CMELSECE_3E_OPEN (POU of MELSEC Communication Portfolio)
 - SD_CFAM3E_OPEN (POU of FA-M3 Communication Portfolio)
 - SD_CMDBSE_BC_OPEN (POU of Modbus Communication Portfolio)

MELSEC Communication Portfolio

POU Name	Description
SD_CMELSECE_OPEN	Communication channel opening with 1E frame (*1) (*2)
SD_CMELSECE_B_BRD256	Bit device reading with 1E frame (max. 256 points) (*1)
SD_CMELSECE_B_WRD064	Word device reading with 1E frame (max. 64 points) (*1)
SD_CMELSECE_B_WRD256	Word device reading with 1E frame (max. 256 points) (*1)
SD_CMELSECE_B_BWR256	Bit device writing with 1E frame (max. 256 points) (*1)
SD_CMELSECE_B_WWR064	Word device writing with 1E frame (max. 64 points) (*1)
SD_CMELSECE_B_WWR256	Word device writing with 1E frame (max. 256 points) (*1)
SD_CMELSECE_3E_OPEN	Communication channel opening with 3E frame (*2)
SD_CMELSECE_3E_BRD	Bit device reading with 3E frame (max. 2048 points) (*3)
SD_CMELSECE_3E_WRD	Word device reading with 3E frame (max. 512 words) (*3)
SD_CMELSECE_3E_BWR	Bit device writing with 3E frame (max. 2048 points) (*3)
SD_CMELSECE_3E_WWR	Word device writing with 3E frame (max. 512 words) (*3)

- *1: For CPU series supporting 1E frame communication. Some devices in a MELSEC controller are inaccessible depending on the MELSEC controller model. For details, refer to “List of Accessible Devices” in “2. MELSEC Communication Portfolio” of TI 34P02P21-01E “Lists of Devices Compatible with Communication Portfolios.”
For communication with MELSEC Q Series controllers, 1E frame data access and 3E frame data access are possible.
- *2: Total number of the following POUs shall be up to 32 in FCN/FCJ since each POU occupies one channel.
 - SD_FCXPE_OPEN (Ethernet Communication Function Block)
 - SD_CMELSECE_OPEN and SD_CMELSECE_3E_OPEN (POU of MELSEC Communication Portfolio)
 - SD_CFAM3E_OPEN (POU of FA-M3 Communication Portfolio)
 - SD_CMDBSE_BC_OPEN (POU of Modbus Communication Portfolio)
- *3: The number of points which can be read/written with 3E frame at a time depends on CPU types of access station or relay station. For details, refer to the manual of Mitsubishi Electric Corporation.

SYSMAC Communication Portfolio

All POU's are for serial communication with SYSMAC controllers.)

POU Name	Description
SD_CSYSMACM_OPEN	Communication channel opening
SD_CSYSMACM_BRD464	Bit device reading
SD_CSYSMACM_WRD029	Word device reading
SD_CSYSMACM_BWR464	Bit device writing
SD_CSYSMACM_WWR029	Word device writing
SD_CSYSMACM_SETRST	Forcible setting/resetting
SD_CSYSMACM_STSCHG	Status change

Power Monitor Communication Portfolio

POU Name	Description
SD_CPM_UPM	UPM power monitor POU (for UPM100/UPM101)
SD_CPM_UZ_PR	UZ/PR power monitor POU (for UZ005/PR201)
SD_CPM_UPM01	UPM01 power monitor POU (for UPM01/UPM02/UPM03)
SD_CPM_PDEMAND	Power demand POU
SD_CUPMORGM_OPEN	Communication task activation POU for UPM01 only

- Power monitors that can be connected are shown below.
Power monitors manufactured by Yokogawa: UPM100, UPM101, UZ005 (S3 or later), PR201 (S2 or later), UPM01, UPM02, UPM03
Note that they require a communication function (RS-485).
- A power monitor can be connected to a serial port (RS-232-C) of FCJ, a serial port (RS-232-C) of the FCJ's CPU module, an RS-232-C Communication Module (NFLR111), or an RS-422/RS-485 Communication Module (NFLR121). An RS-232-C/RS-485 converter is required to connect a power monitor using the RS-232-C.
- A total of up to eight modules can be installed for each FCN with respect to RS-232-C Communication Modules (NFLR111) and RS-422/RS-485 Communication Modules (NFLR121).
- If an FCN's CPU modules are configured in redundancy, it is not possible to use the serial ports (RS-232-C) of these CPU modules.
- A power monitor and a temperature controller cannot be used simultaneously on the same communication line.
- Up to 31 power monitors can be connected on a communication line.
- UPM01, UPM02, or UPM03 cannot be used with other power monitors on the same communication line.

- The Power Demand POU is a data buffer designed to display power demand graphs. It does not provide data acquisition and prediction calculation functions. (Samples of data acquisition and prediction calculation processing are included in the software media.)
- This portfolio uses normalized data (0 – 100% data). Convert the normalized data to engineering quantity data before linking this portfolio to any NPAS POU of the PAS portfolio.

Temperature Controller Communication Portfolio

POU Name	Description
SD_CDIC_SCDL	UT Scheduling
SD_CDIC_UT	UT controller
SD_CDIC_UT_HC	UT HC controller

- Temperature controllers that can be connected are shown below.
Digital Indicating Controllers manufactured by Yokogawa:
UT350, UT351, UT320, UT450, UT420, UT550, UT520, UT750
Note that they require a communication function (RS-485).
- A temperature controller can be connected to a serial port (RS-232-C) of FCJ, a serial port (RS-232-C) of the FCJ's CPU module, an RS-232-C Communication Module (NFLR111), or an RS-422/RS-485 Communication Module (NFLR121). An RS-232-C/RS-485 converter is required to connect a temperature controller using the RS-232-C.
- A total of up to eight modules can be installed for each FCN with respect to RS-232-C Communication Modules (NFLR111) and RS-422/RS-485 Communication Modules (NFLR121).
- If an FCN's CPU modules are configured in redundancy, it is not possible to use the serial ports (RS-232-C) of these CPU modules.
- A temperature controller cannot be connected to the same RS-485 line with power monitors, and vice versa.
- Up to 16 temperature controllers can be connected per RS-485 line. If a temperature controller performs dual-loop control, it is counted as two controllers.
- This portfolio uses normalized data (0 – 100% data). Convert the normalized data to engineering quantity data before linking this portfolio to any NPAS POU of the PAS portfolio.

● **Cassettes in Application-specific Portfolios**

Boiler Control Portfolio

POU Name	Description
SD_A_DRMLVL_A	Type A pressure compensation for drum level (engineering quantity data type)
SD_A_DRMLVL_B	Type B pressure compensation for drum level (normalized data type)
SD_A_STMFL_A	Type A steam flow calculation (engineering quantity data type)
SD_A_STMFL_B	Type B steam flow calculation (normalized data type)

Boiler Auxiliary Control Portfolio

POU Name	Description
SD_A_MOTOR_A	Type A motor control (automatic failure detection and resetting)
SD_A_MOTOR_B	Type B motor control (with external failure/resetting conditions)
SD_A_VALVE_A	Type A valve control (automatic failure detection and resetting)
SD_A_VALVE_B	Type B valve control (with external failure/resetting conditions)

■ **STYLE OF SOFTWARE SUPPLY**

● **Software Media**

The programs and documents for all Application Portfolios excluding PAS Portfolio and Time Synchronization Server Portfolio are supplied as a DVD-ROM. Hence, a DVD-ROM drive is required for installation in the computer you use.

PAS Portfolio is included in the media (DVD-ROM) of FCN/FCJ Software (Model NT203AJ).

● **Order ID Sheet (*1)**

The portfolio licenses come with an order ID sheet with the order ID number and password. Access the specified Web site of Yokogawa and enter the order ID number and password shown. Then, a file containing the respective license IDs for the supplied portfolios will be given. To use the Application Portfolio, register the supplied license ID to the FCN/FCJ system card.

*1: For FCN-500 and FCN-RTU, the licenses are bundled with CPU module (Model: NFCP501/NFCP502/NFCP050). Select type of CPU modules with the portfolio licenses required.

■ **MODELS AND SUFFIX CODES**

● **Software Media**

		Description
Model	NT203AJ	FCN/FCJ software media
Suffix Codes	-P	Programs (including electronic documents)
	C	DVD-ROM
	1	Always 1
	1	Always 1
	E	English version

		Description
Model	NT205AJ	Application Portfolio software media
Suffix Codes	-P	Programs (including electronic documents)
	C	DVD-ROM
	1	Always 1
	1	Always 1
	E	English version

● **Portfolio Licenses**

Note: Licenses for FCN-500 and FCN-RTU runtime environment are bundled with CPU module.

		Description
Model	NT8001J	PAS Portfolio License (*1)
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

*1: NPAS Input/Output Data Processing POU can be used without this License.

		Description
Model	NT8002J	SAMA Portfolio License
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

		Description
Model	NT8040J	Time Synchronization Server Portfolio License
Suffix Codes	-L	License
	W	The order ID sheet is delivered.
	1	Always 1
	1	Always 1
	A	Standard (common to Japanese and English versions)

Note: This license is required only for FCN/FCJ which implements a server function (SNTP server). It is not required for clients (SNTP clients).

		Description
Model	NT8020J	FA-M3 Communication Portfolio License
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

		Description
Model	NT8021J	MELSEC-A Communication Portfolio License
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

		Description
Model	NT8022J	SYSMAC Communication Portfolio License
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

		Description
Model	NT8030J	Power Monitor Communication Portfolio License
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

		Description
Model	NT8031J	Temperature Controller Communication Portfolio License
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

		Description
Model	NT8101J	Boiler Control Portfolio License
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

		Description
Model	NT8102J	Boiler Auxiliary Control Portfolio License
Suffix Codes	-L	License
	W	License ID to be issued via Web
	1	Always 1
	1	Always 1
	A	Standard

■ ORDERING INFORMATION

Specify the model and suffix codes.

■ RELATED DOCUMENTS

- FCN/FCJ Autonomous Controller Functions (FCN-100/FCJ) GS 34P02Q01-01E
- FCN-RTU Low Power Autonomous Controller Functions GS 34P02Q02-01E
- FCN Autonomous Controller Functions (FCN-500) GS 34P02Q03-01E
- Modbus Communication Portfolio GS 34P02P21-01E
- DNP3 Communication Portfolio GS 34P02P22-01E
- Webmetry Basic Library Portfolio GS 34P02P50-01E
- InfoWell GS 34P02P51-01E
- Graphic Portfolio (InfoWell) GS 34P02P52-01E
- Logging Portfolio (InfoWell) GS 34P02P53-01E

■ TRADEMARKS

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