MITSUBISHI ELECTRIC

PROGRAMMABLE CONTROLLERS
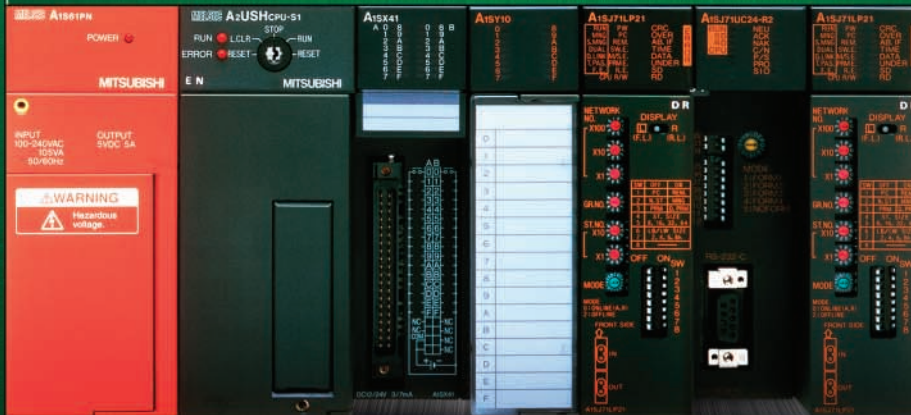
MELSEC-AnS/QnAS series

ISO 14001
JACO
EC97J1113

UKAS
ENVIRONMENTAL
MANAGEMENT
051

Certified ISO 9001 by

BVQi

UKAS
QUALITY
MANAGEMENT
008

MELFANSweb
MITSUBISHI ELECTRIC
FA NETWORK SERVICE ON WORLD WIDE

MELSOFT

CC-Link

The Answer to Optimum Control -

Choose a PLC. Choose quality. Choose the MELSEC-AnS/QnAS Series!

Need reliability? Choose the MELSEC-AnS/QnAS Series!
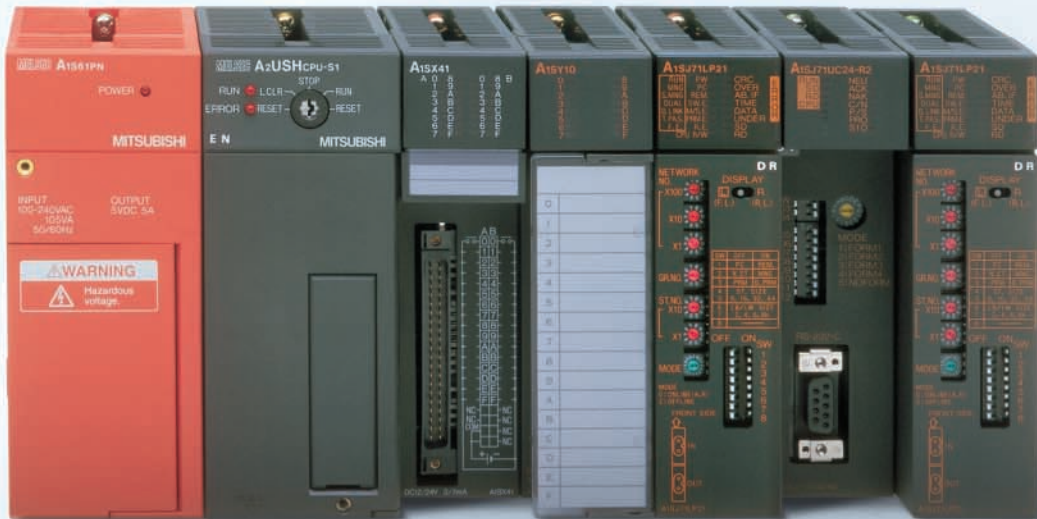
Need Mitsubishi's collective strength? Choose the MELSEC-AnS/QnAS Series!

Need global support? Choose the MELSEC-AnS/QnAS Series!

INDEX

Anytime, Anywhere!
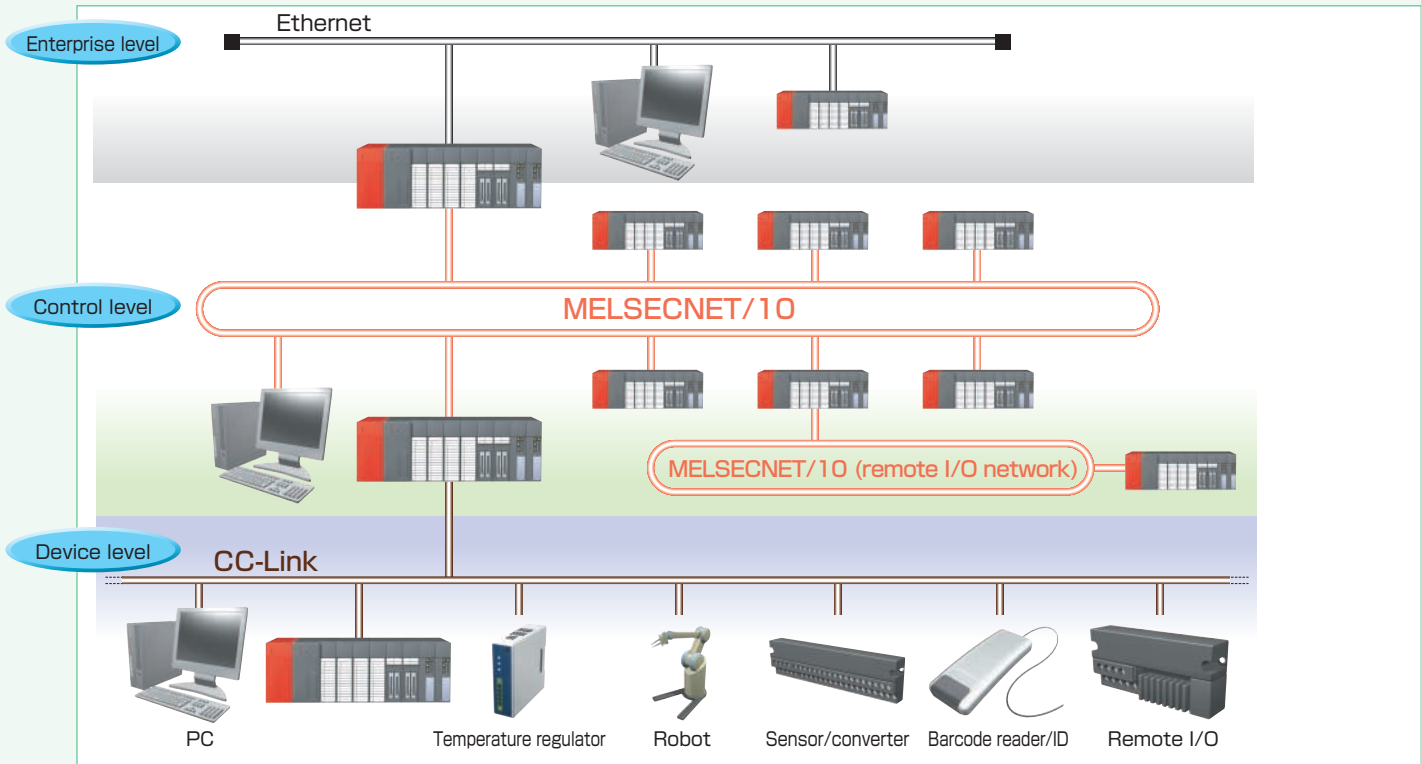
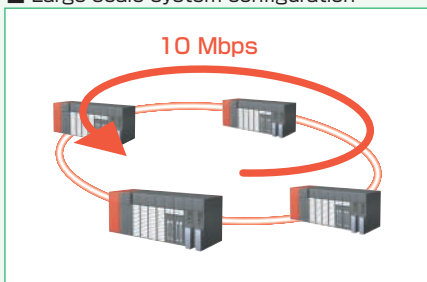Collective Strength

Reliable and Proven

Global Support

●Mitsubishi FA Network System

The Mitsubishi FA Network System provides optimum network products to meet specific application requirements. The network system includes an enterprise level network (Ethernet) used to gather information on production/quality control and the equipment operating status, a control level network (MELSECNET/10) used to link controllers, and a device level network (CC-Link) used to link a controller and other devices including sensors. This seamless network system allows easy information access beyond network levels.

Enterprise level — **Ethernet**

Control level — **MELSECNET/10**

MELSECNET/10 (remote I/O network)

Device level — **CC-Link**

| PC | Temperature regulator | Robot | Sensor/converter | Barcode reader/ID | Remote I/O |

●MELSECNET/10

■ Large-scale system configuration

10 Mbps

(1) High-speed communication
High-speed communication of 10 Mbps is possible using a dedicated data-link processor (MDP).
(2) No. of connectable stations
A maximum of 64 stations (optical/coaxial loop system)/32 stations (coaxial bus system) can be connected. The entire system can be expanded up to 255 networks (239 for QnAS Series).
(3) Large capacity
The maximum number of link points per network for link relay B, link register W, and link I/O is 8192, respectively. Hence, the network can support even large-scale systems with many I/O devices.

■ Diverse transmission configuration

Optical loop

Coaxial loop
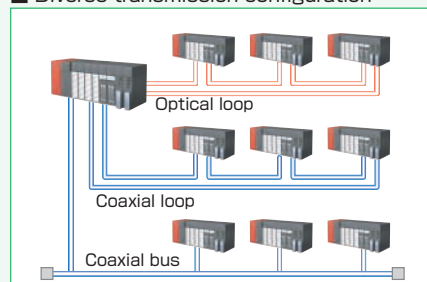
Coaxial bus

To support a variety of systems flexibly, three transmission configurations are offered: an optical loop system which provides long distance between stations, long overall distance, and high noise immunity; a coaxial bus system which realizes low cost and easy cable assembly; and a coaxial loop system.
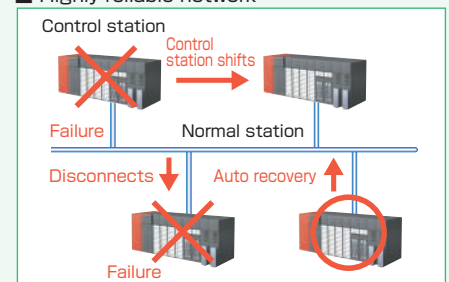
■ N:N communication

Access, such as remote monitoring and uploading/downloading programs from peripheral devices, PCs, etc., is capable in N:N communication. Furthermore, N:N communication can be performed by transmission/reception commands (ZNRD, ZNWR) from the PLC program, In addition to this feature, the QnACPU can execute SEND, RECV, READ, WRITE, and REQ message transmission/reception commands.

■ Gateway function

The gateway function to multiple networks via the QnACPU and AnUCPU enables interlink data transfer of link devices and a routing function that performs N:N communication with other networks.

■ Highly reliable network

Control station

Control station shifts

Failure   Normal station

Disconnects   Auto recovery

Failure

Even if the control station fails, the normal station acts as a sub-control station to prevent interruptions in network communication.

■ Incorporating generic PC into the network

MELSECNET/10
(PLC-to-PLC network)
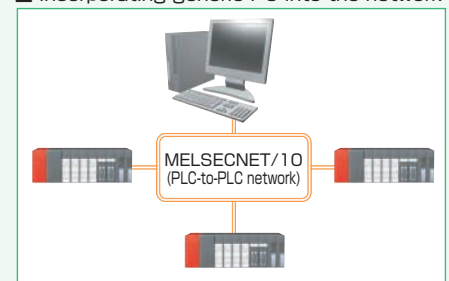
By installing MELSECNET/10 boards in generic PCs, the PCs can be connected to the MELSECNET/10 network system. This allows you to check data-link related testing and monitoring information on the PC screen and to access PLC data using user-programmed functions with the software.

●MELSECNET/10 Specifications
QnAS For QnASCPU
AnS For AnSCPU

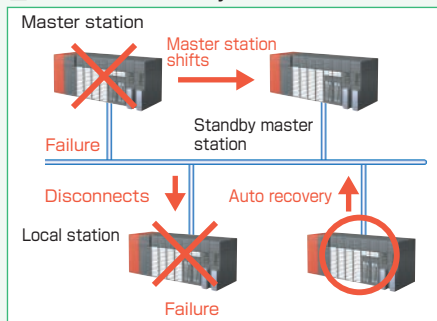| Item	Type	Control/ normal station	A1SJ71QLP21 QnAS A1SJ71LP21 AnS	A1SJ71QLR21 QnAS A1SJ71LR21 AnS	A1SJ71QBR11 QnAS A1SJ71BR11 AnS
		Remote I/O station	A1SJ72QLP25	A1SJ72QLR25	A1SJ72QBR15
	Transmission path		Optical loop (SI/QSI cable)	Coaxial loop	Coaxial bus
	Communication speed		10 Mbps/20 Mbps (multiplex transmission)		
	Overall distance		30 km	19.2 km/30 km *1	300 m/500 m *1
	Max. distance between stations		500 m/1 km *1	300 m/500 m *1	
	Max. link points per network		X/Y: 8192 points, B: 8192 points, W: 8192 points		
	No. of connectable stations per network		64 (PLC-to-PLC network)/65 (remote I/O network)		32 (PLC-to-PLC network)/ 33 (remote I/O network)

*1: Varies depending on the type of cable used.

●CC-Link

■ Minimum wiring, low cost
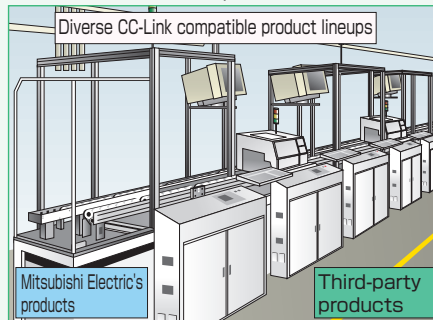

Intelligent devices connected with CC-Link
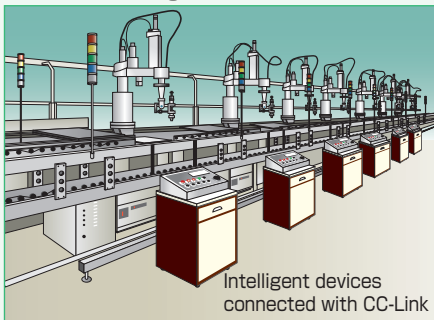
A bus type connection using dedicated CC-Link cables enables to connect multiple intelligent devices spread throughout the production line and to modify wiring easily. Hence, wiring and system maintenance costs are reduced.

■ Reliable and safe system

Master station
Master station shifts
Failure
Standby master station
Disconnects
Auto recovery
Local station
Failure

■ A wide selection of products

Diverse CC-Link compatible product lineups
Mitsubishi Electric's products
Third-party products

Optimal products can be selected from a wide variety of Mitsubishi Electric's products and third-party products for the CC-Link system.
Mitsubishi Electric performs compatibility tests to ensure that the third-party products can be connected without any problems.

Communication are continued between the master station and other local stations even if the local or remote station fails. In addition, repair and replacement can be done without stopping the system (when a 2-piece terminal block is used).

■ Large-scale, multi-function system
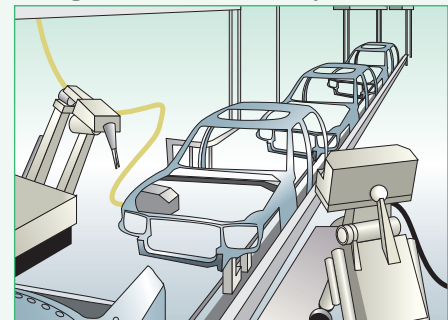
(1) High-speed communication
    Communication with a transmission speed of 10 Mbps is possible.
(2) Long-distance communication
    Maximum 1.2 km long-distance communication is supported. Furthermore, the distance can be extended up to 7.8 km using an optical repeater module.
(3) Large capacity
    Communication of I/O data (2048 points) and numerical data (512 points) is capable. Hence, large-scale systems with many I/O devices can be supported.

●CC-Link Specifications
QnAS For QnASCPU
AnS For AnSCPU

	Item	A1SJ61QBT11 QnAS	A1SJ61BT11 AnS
	Transmission speed	Can select from 156 kbps, 625 kbps, 2.5 Mbps, 5 Mbps, and 10 Mbps	
	Max. no. of connectable modules (master station)	64 (for remote I/O station with 1 occupied station)	
	No. of occupied stations (local station)	1 to 4	
No. of link points	Per system	Remote I/O: 2048 points Remote register: 256 points (master station to remote/local station), 256 points (remote/local station to master station)	
	Per remote/local station	Remote I/O: 32 points (local station: 30 points) Remote register: 4 points (master station to remote/local station), 4 points (remote/local station to master station)	
	Transmission path	Bus (RS-485)	

* The maximum overall cable length will differ depending on the transmission speed and connection cable. When a Ver.1.10 compatible cable is used, the relationship between transmission speed and the maximum overall cable length is shown in the table on the right.

Transmission speed	Station-to-station cable length	Maximum overall cable length
156 kbps		1200 m
625 kbps		900 m
2.5 Mbps	20 cm or longer	400 m
5 Mbps		160 m
10 Mbps		100 m

●Integrated FA Development and Debugging with MELSOFT

MELSOFT, Mitsubishi Electric's integrated FA software, dramatically improves operating efficiency for program development, debugging, and maintenance by taking advantage of Windows operability. More convenient and easy-to-use engineering environment is provided by the software such as GX Simulator that enables offline debugging without needing actual hardware and GX Configurator that allows initialization on the screen (without a program), monitoring, testing, etc.

●Improving Development Efficiency with GX Series

GX Developer
Programming software (Required)
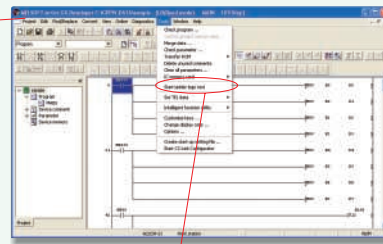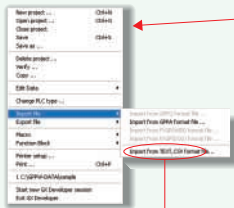
GX Converter
Text/CSV format data converter
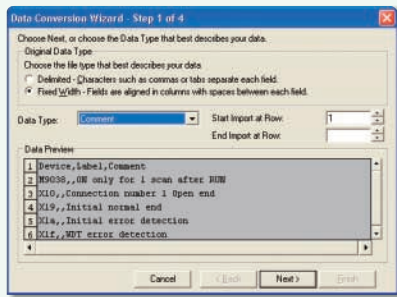
GX Simulator
Simulation software

GX Configurator
Data setting/monitoring software
for special function modules
(A Series dedicated product)
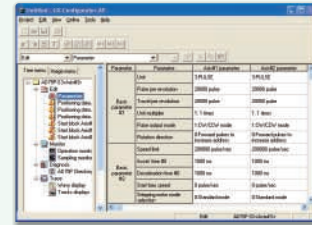
●Offline Debugging

GX Simulator runs a virtual PLC on the PC. Program debugging can be performed on the PC without needing actual hardware. By duplicating the operation of the actual PLC, debugging can be carried out upon completion of designing without having to wire I/O modules.

PC
(Virtual PLC)

Program writing

Monitoring/ debugging
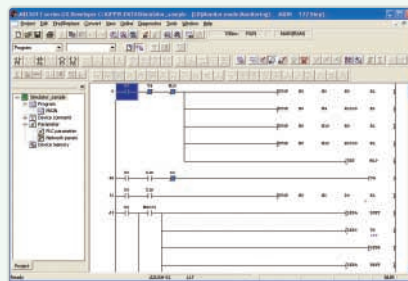
Timing chart
Variations of device values can be checked.
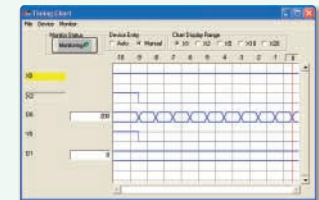
Monitor
Monitoring on the PC.

●Support Creation of System Documents

GX Converter converts other format data (text format data, CSV format data) to GX Developer format data (instruction list, device comment). Data conversion is simple using the data conversion wizard. This is a convenient tool for creation of system documents.
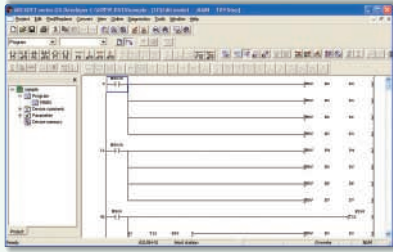
Files can be utilized on Excel.

Device comment

●Easy Parameter Settings

GX Configurator initializes parameters for special function modules simply by following the screen without sequence programs. Furthermore, monitoring and testing can be performed on the screen without having to consider the buffer memory. This is an effective tool for system adjustments and troubleshooting.

<GX Configurator-AP: Positioning module setting/monitoring tool>
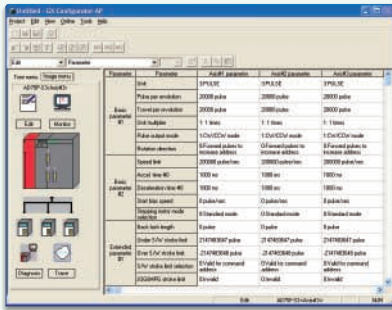
Image menu screen

Tree menu screen

<GX Configurator-CC: CC-Link module setting/monitoring tool>
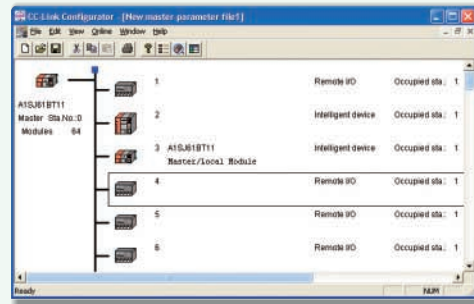
Master parameter setting screen
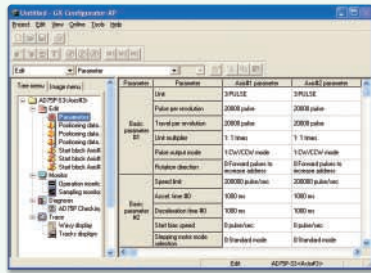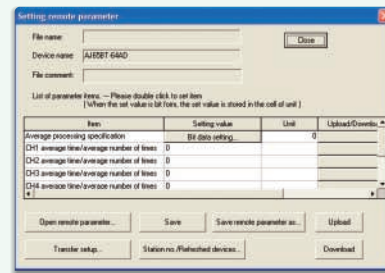
Remote parameter setting screen

●MX Series Designed to Link Office to Shop Floor

MX Component of the MX Series supports a variety of communication methods from PCs to PLCs. Its ActiveX® based library achieves communication with only a simple process without having to consider protocol communication issues. MX Components is suitable for the sites where a diverse application requirements needs to be met and speed is required in system configuration and modifications. MX Component drastically reduces communication program development time and improves efficiency. Additionally, MX Components supports a variety of development languages, such as Visual Basic®, Visual C++®, Excel/Access VBA, and VBScript, enabling a broad range of application developments.
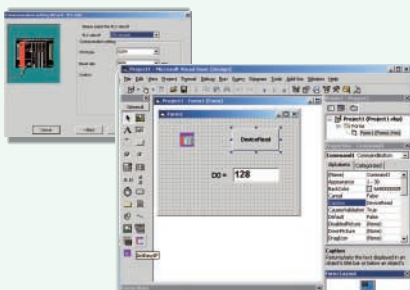
MX Component
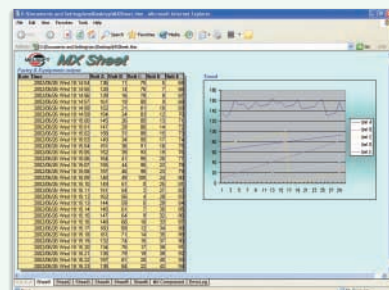
MX Sheet

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●Positioning Module
QnAS For QnASCPU
AnS For AnSCPU

Positioning modules are connected to servo amplifiers and servo motors, and controls (calculates and instructs) positioning of a target object at a preset position or speed. Using with GX Configurator-AP (positioning module setting/monitoring tool for A1SD75P), setting the positioning parameters and data and monitoring are easier.

Application example: Filling device line
Move bottles to the filling nozzle position and control the nozzle position and filling speed to prevent from forming bubbles.

Bottle movement: Fixed-feed rate
Nozzle up/down: Position control
Fluid filling: Speed control
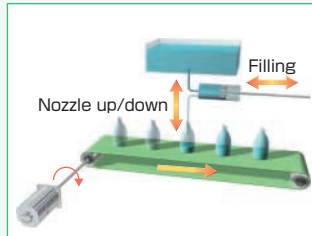
Application example: Semiconductor related equipment
Control accurate positioning (X/Y axes) to inspect a wafer prober and tester for each chip on the wafer.

Prober movement: 2-axis (X/Y) linear interpolation control
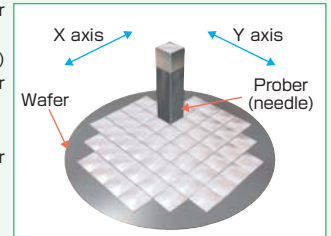
●SSCNET Connection Type
· Connectable to Mitsubishi SSCNET servo amplifiers up to 30 m with minimum wiring.
· An absolute position system that does not require original point recovery of machine can be constructed easily.
· Equipped with a variety of control methods, such as PTP (Point to Point) control, fixed-feed rate control, and 2-axis linear/circular interpolation control.
· Transmitting parameters to the servo amplifiers and monitoring are capable from the positioning modules.

Item	A1SD75M1 QnAS AnS	A1SD75M2 QnAS AnS	A1SD75M3 QnAS AnS
No. of control axes	1 axis	2 axes	3 axes
Control unit	mm, inch, degree, pulse		
Positioning range[1]	-2147483648 to 2147483647 pulse (Can be set in mm, inches, or degrees.)		
Speed command	1 to 1000000 pulse/s (Can be set in mm/min, inch/min, or degree/min.)		
Control method	PTP control, path control (linear and circular), speed control, speed/position changeover control		
Max. output command speed	1 Mpps		
Interpolation function	–	2-axis linear interpolation, 2-axis circular interpolation	

[1]: The positioning range is applicable when an absolute position system is not used.

[SSCNET connection example]

A1SD75M3
Servo amplifier
SSCNET
Servo motor
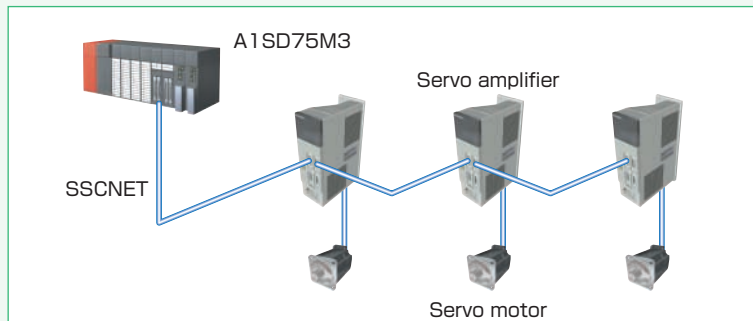
●Open Collector/Differential Driver Output Type
· Open collector/differential driver output type for standard servo amplifiers.
· Being compatible with stepping motors, systems can be constructed depending on application requirements.
· Equipped with a variety of control methods, such as PTP (Point to Point) control, fixed-feed rate control, and 2-axis linear/circular interpolation control.

Item	A1SD75P1-S3 QnAS AnS	A1SD75P2-S3 QnAS AnS	A1SD75P3-S3 QnAS AnS
No. of control axes	1 axis	2 axes	3 axes
Control unit	mm, inch, degree, pulse		
Positioning range[1]	-2147483648 to 2147483647 pulse (Can be set in mm, inches, or degrees.)		
Speed command	1 to 1000000 pulse/s (Can be set in mm/min, inch/min, or degree/min.)		
Control method	PTP control, path control (linear and circular), speed control, speed/position changeover control		
Max. output pulse	Differential driver: 400 kpps, open collector: 200 kpps		
Interpolation function	–	2-axis linear interpolation, 2-axis circular interpolation	

[1]: The positioning range is applicable in the standard mode.

●Analog Input Module   QnAS For QnASCPU   AnS For AnSCPU

The analog input modules convert input analog values (voltage or current) to digital values.
· The most suitable type can be selected based on the number of channels, analog input characteristics, resolution, etc.

Item		A1S64AD QnAS AnS	A1S68AD QnAS AnS
Analog input range	Voltage	-10 to 10 V DC	
	Current	-20 to 20 mA DC	0 to 20 mA DC
Resolution	Voltage	2.5/1.25/0.83 mV	5/2.5/1.25/1 mV
	Current	10/5/3.33 μA	5/4 μA
No. of channels		4	8
Conversion speed		20 ms/channel	0.5 ms/channel

●Analog Output Module   QnAS For QnASCPU   AnS For AnSCPU

The analog output modules convert the set digital values to analog values (voltage or current) and then output them externally.
· The most suitable type can be selected based on the number of channels, analog output characteristics, resolution, etc.

Item		A1S62DA QnAS AnS	A1S68DAV QnAS AnS	A1S68DAI QnAS AnS
Analog output range	Voltage	-10 to 10 V DC		—
	Current	0 to 20 mA DC	—	4 to 20 mA DC
Resolution	Voltage	2.5/1.25/0.83 mV	5 mV	—
	Current	5/2.5/1.7 μA	—	4 μA
No. of channels		2	8	
Conversion speed		25 ms/2 channels	4 ms/8 channels	

●Temperature Control Module   QnAS For QnASCPU   AnS For AnSCPU

The temperature control modules input temperature data of a controlled object from a temperature sensor and maintain temperature at the set value.
· By connecting a thermocouple or platinum RTD directly, an optimum temperature control (PID control) is available.
· Can control heating-cooling up to two loops.
· Can control temperature up to four loops.
· A1S64TCTTBW can detect heater disconnection.
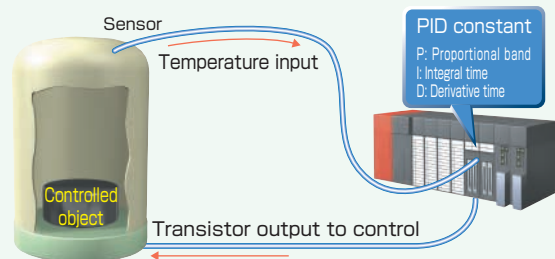
Item	A1S64TCTRT QnAS AnS	A1S64TCTRTBW QnAS AnS
Control output	Standard control (heating or cooling control), heating-cooling control	
No. of temperature input points	Standard control : 4 channels/module heating-cooling control : 2 channels/module	
Supported sensors	Thermocouple (R, K, J, T, S, B, E, N, U, L, PLⅡ, W5Re/W26Re), Platinum RTD (Pt100, JPt100)	
Sampling cycle	Standard control : 0.5 s/4 channels heating-cooling control : 0.5 s/ 2 channels	
Disconnection detection	No	Yes

●Temperature Input Module   QnAS For QnASCPU   AnS For AnSCPU

The temperature input modules input temperature data from a temperature sensor and convert the value into the digital value.
· The most suitable type can be selected based on the measurement temperature, number of channels, resolution, etc.

Item	A1S68TD QnAS AnS	A1S62RD3N QnAS AnS	A1S62RD4N QnAS AnS
Supported sensors	Thermocouple (R, K, J, T, S, B, E)	Pt100, JPt100 (3-wire type)	Pt100, JPt100 (4-wire type)
No. of channels	8	2	
Temperature input range	0 to 1700℃	−180 to 600℃	
Resolution	B, R, S : 0.3℃ K, E, J, T : 0.1℃	0.025℃	
Conversion speed	400 ms/8 channels	40 ms/channel	

●Ethernet Interface Module QnAS For QnASCPU AnS For AnSCPU

· Communication between the PC and PLC or between PLCs can be performed via Ethernet.
· The communication program for the PC can be simplified using MELSEC communication support tools (MX Component etc.). The module can be selected based on the interface (10BASE5, 10BASE-T, or 10BASE2).

Ethernet
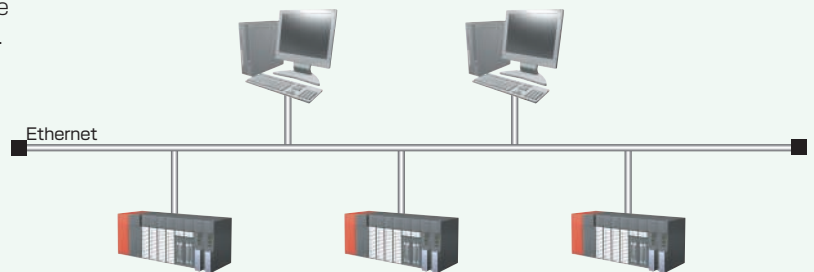
Item	A1SJ71QE71N-B5 QnAS A1SJ71E71N-B5 AnS	A1SJ71QE71N3-T QnAS A1SJ71E71N3-T AnS	A1SJ71QE71N-B2 QnAS A1SJ71E71N-B2 AnS
Interface	10BASE5	10BASE-T	10BASE2
Data transmission speed	10 Mbps		
Max. distance between nodes	2500 m	–	925 m
Max. segment length	500 m	100 m (between hub and node)	185 m
Max. no. of nodes/connection	100 units/segment	Max. 4 stages cascade connection	30 units/segment
No. of simultaneously open connections allowed	8		

●Serial Communication Module QnAS For QnASCPU

An RS-232 or RS-422/RS-485 interface is used to perform data exchange between external devices (PCs, printers, display devices, sensors, measurement devices, etc.) and the PLC CPU. The communication program for the PC can be simplified using MELSEC communication support tools (MX Component etc.).

·CPU status
·Device data
·Sequence program

Serial communication
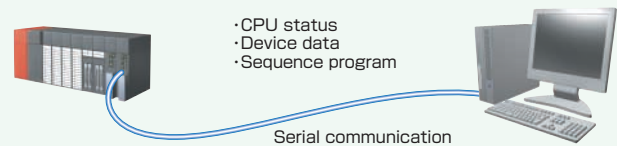
· Have two channels of RS-232 or one RS-232 and one RS-422/485, allowing to set each channel differently.
· Registration of the communication frame and ASCII/BIN code conversion are available based on the external device.
· Compatible with computer link modules and can be incorporated into a multidrop link.

Item	A1SJ71QC24N1 QnAS	A1SJ71QC24N1-R2 QnAS
Interface	RS-232×1 channel, RS-422/485×1 channel	RS-232×2 channels
Transmission speed	300 to 115200 bps	
Synchronization method	Asynchronous method	
Protocol	Dedicated, nonprocedural, bidirectional	
Compatibility	Compatible with A1SJ71UC24-R2/PRF/R4 communication protocols	
Modem support function	Yes	

●Computer Link Module AnS For AnSCPU

An RS-232 or RS-422/RS-485 interface is used to perform data exchange between external devices (PCs, printers, etc.) and the PLC CPU. The communication program for the PC can be simplified using MELSEC communication support tools (MX Component etc.).
(Support dedicated, nonprocedural, and bidirectional protocols. Communication based on the application or external device is capable.)
· Monitoring the status of PLC CPU and uploading/downloading device data and programs are possible.

Item	A1SJ71UC24-R4 AnS	A1SJ71UC24-R2 AnS	A1SJ71UC24-PRF AnS
Interface	RS422/485×1 channel	RS-232×1 channel	
Transmission speed	300 to 19200 bps		
Synchronization method	Asynchronous method		
Protocol	Dedicated, nonprocedural, bidirectional		
Multidrop link function	Yes	No	

●Interrupt Module QnAS For QnASCPU / AnS For AnSCPU

When an interrupt input occurs, the interrupt module makes PLC CPU execute the specified interrupt programs.

Item		A1SI61 QnAS AnS
No. of interrupt input points		16 points
Rated input	Voltage	12/24 V DC
	Current	4 mA(12 V DC)/8 mA(24 V DC)
Response time		0.2 ms

●High Speed Counter Module QnAS For QnASCPU / AnS For AnSCPU

This module counts externally input pulse signals, compares the value with the preset value, and outputs a signal.
· Support low speed input pulses by counting speed switching pin. (A1SD61, A1SD62, A1SD62E, A1SD62D, A1SD62D-S1)
· External output by the comparison results (<, =, >) is available. (A1SD61)

Item	A1SD61 QnAS AnS	A1SD62 QnAS AnS	A1SD62E QnAS AnS	A1SD62D QnAS AnS	A1SD62D-S1 QnAS AnS
No. of channels	1	2			
Input method	Photocoupler (5/12/24 V DC: 2 to 5 mA)			Differential line receiver	
Input format	1-phase, 2-phase				
Max. counting speed	50 kpps	100 kpps		200 kpps	
No. of external output points	8 (comparison output)	2/channel (coincidence output)			1/channel (coincidence output)
External output method (transistor output 12/24 V DC)	Open collector	Sink type	Source type	Sink type	

●Position Detection Module QnAS For QnASCPU / AnS For AnSCPU

The position of the target object is detected with a signal input from the absolute encoder.

Item	A1S62LS QnAS AnS
Position detection method	Absolute position detection by absolute encoder
Resolution	4096 divisions × 32 rotations to 409.6 divisions × 320 rotations
Output	Limit switch output

●Analog I/O Module QnAS For QnASCPU / AnS For AnSCPU

Analog-digital conversion (A/D conversion) and digital-analog conversion (D/A conversion) can be performed with a single module.

Item		A1S66ADA QnAS AnS		A1S63ADA QnAS AnS	
		(A/D conversion)	(D/A conversion)	(A/D conversion)	(D/A conversion)
Analog I/O	Voltage	-10 to 10 V DC			
	Current	0 to 20 mA DC		-20 to 20 mA DC	0 to 20 mA DC
Resolution	Voltage	5/2.5/1.25/1 mV		2.5/1.25/0.83 mV	
	Current	5/4 μA		10/5/3.33 μA	5/2.5/1.7 μA
No. of channels		4	2	2	1
Conversion speed		400 μs/4 channels	240 μs/2 channels	1ms/channel (at 1/4000) 2ms/channel (at 1/8000) 3ms/channel (at 1/12000)	

●Intelligent Communication Module (BASIC Language Programming) ^{QnAS} For QnASCPU ^{AnS} For AnSCPU

Various calculations and data transfer between the CPU and external devices are performed with a BASIC program.

Item	A1SD51S QnAS AnS
Program language	AD51H-BASIC
No. of tasks	Max. 2 tasks
Interface	RS-232×2 channels, RS-422/485×1 channel
General-purpose I/O	Input: 27 points, output: 17 points

●AS-i Master Module ^{QnAS} For QnASCPU ^{AnS} For AnSCPU

This is an AS-Interface Specification Version 2.04 compatible master module.
· Has two interfaces for AS-i system and can control 31 slave modules per system.
· The overall distance is 100 m. However, this can be extended to a maximum of 300 m with two repeaters.
· Supports automatic slave address assignment function (Automatic address assignment function).

Item	A1SJ71AS92 QnAS AnS
Max. no. of slaves	62 (31 × 2 systems)
Max. no. of I/O points	Input: 248 points, output: 248 points
Refresh time	5 ms
Communication speed	167 kbps
Transmission distance	Max. 100 m/system (up to 300 m possible with 2 repeaters)

●B/NET Interface Module ^{QnAS} For QnASCPU ^{AnS} For AnSCPU

This module can display measurements and monitor distribution systems for buildings, and monitor and control entire electric system including electric power demand.

Item	A1SJ71B62-S3 QnAS AnS
No. of connectable stations	63
Transmission speed	9600 bps
Max. transmission distance	1000 m
Applicable cable	CPEV-S ϕ1.2 (twisted pair cable)
Data transfer volume	Max. 16 bytes

General Specifications

General specifications indicate the environmental specifications in which this product can be installed and operated. Unless otherwise specified, the general specifications apply to all products of the AnS/QnAS Series.

Item	Specifications			
Operating ambient temperature	0 to 55℃			
Storage ambient temperature	−20 to 75℃			
Operating ambient humidity	10 to 90%RH, non-condensing			
Storage ambient humidity	10 to 90%RH, non-condensing			
Vibration resistance	Conforming to JIS B 3502, IEC 61131-2	Under intermittent vibration			Sweep count
		Frequency	Acceleration	Amplitude	10 times each in X, Y, Z directions (for 80 minutes)
		10 to 57 Hz	—	0.075 mm	
		57 to 150 Hz	9.8 m/s^2	—	
		Under continuous vibration			
		Frequency	Acceleration	Amplitude	
		10 to 57 Hz	—	0.035 mm	
		57 to 150 Hz	4.9m/s^2	—	
Shock resistance	Conforming to JIS B 3502, IEC 61131-2 (147 m/s^2, 3 times each in X, Y, Z directions)			
Operating atmosphere	No corrosive gasses			
Operating altitude	2000 m or less			
Installation location	Inside control panel			
Overvoltage category [1]	II or less			
Pollution degree [2]	2 or less			

*1: This indicates the section of the power supply to which the equipment is assumed to be connected between the public electrical power distribution network and the machinery within premises. Category II applies to equipment for which electrical power is supplied from fixed facilities. The surge voltage withstand level for up to the rated voltage of 300 V is 2500 V.

*2: This index indicates the degree to which conductive material is generated in the environment where the equipment is used. In pollution degree 2, only non-conductive pollution occurs. Temporary conductivity caused by condensation is to be expected.

(Notes)
(1) Noise immunity, withstand voltage, and insulation resistance will differ depending on the module. Please refer to the specifications of each module for details.
(2) Please consult your local Mitsubishi representative when using the device in a location susceptible to direct vibrations or impact.

CPU Modules

●CPU Performance Specifications `QnAS`

Item		Q2ASHCPU-S1	Q2ASHCPU	Q2ASCPU-S1	Q2ASCPU
Programming language		Ladder/List/SFC			
I/O control mode		Refresh			
No. of I/O device points		8192 points			
No. of I/O points		1024 points	512 points	1024 points	512 points
Built-in RAM capacity		240 KB	112 KB	240 KB	112 KB
Program capacity		60 k steps	28 k steps	60 k steps	28 k steps
PC MIX value [2]		3.8 instructions		1.3 instructions	
Data memory — Bit devices	Internal relay (M) [1]	8192 points			
	Latch relay (L) [1]	8192 points			
	Step relay (S)	8192 points (exclusively for SFC)			
	Annunciator (F) [1]	2048 points			
	Edge relay (V) [1]	2048 points			
	Link relay (B) [1]	8192 points			
Data memory — Word devices	Timer (T) [1]	2048 points (both high and low speed) Low/high-speed switching is set by instructions. Low/high-speed measurement unit is set by parameters.			
	Retentive timer (ST) [1]	0 points (max. 2048 points)			
	Counter (C) [1]	Counter: 1024 points Interrupt counter: 0 points (max. 48 points)			
	Data register (D) [1]	12288 points			
	Link register (W) [1]	8192 points			
	File register [1]	Max. 1018 k words (when using memory card)			
Accumulator (A)		No			
Pointer (P)		4096 points			
Interrupt pointer (I)		48 points			
Index register (V, Z)		16 points (Z only. V is used as an edge relay.)			
Master control nesting (N)		15 points			
Data type		Integer type (16 bits), precision integer type (32 bits), single precision floating-point type (32 bits)			
Function		Floating-point calculation, fixed-point BCD calculation, text string processing, trigonometric function, square root, exponential operation, natural logarithm			
Start at power on and at power restoration		Auto restart when "RUN" switch is ON.			
Constant scan		Yes			
Latch (Power failure compensation)		Yes			
Remote RUN, STOP		Yes			
PAUSE		Yes			
Status latch		Yes			
Sampling trace		Yes			
Offline switch		No			
Step operation		Yes			
Clock		Yes			
Online I/O module change (hot-swap)		No			
Interrupt processing		Yes			
Comment		Yes			
Watch dog timer		Variable			
Microcomputer program area		No			
Self-diagnostic function		Yes			

*1: Indicates the number of points in the default state. This can be changed by the parameters.

*2: The PC MIX value is the average number of instructions, such as basic instructions or data processing instructions executed in 1 μs. The processing speed will rise as the value increases.

●CPU Performance Specifications AnS

Item		A2USHCPU-S1	A2USCPU	A2SHCPU	A1SJHCPU A1SHCPU
Programming language		Ladder/List/SFC			
I/O control mode		Refresh		Refresh/ direct switching	
No. of I/O device points		8192 points		2048 points	
No. of I/O points		1024 points	512 points		256 points
Built-in RAM capacity		256 KB	64 KB		
Program capacity		30 k steps	14 k steps		8 k steps
PC MIX value[2]		2.0 instructions	0.9 instructions	0.5 instructions	0.4 instructions
Data memory	Bit devices	Internal relay (M)[1]	Total 8192 points		Total 2048 points	
		Latch relay (L)[1]				
		Step relay (S)				
		Annunciator (F)[1]	2048 points		256 points	
		Edge relay (V)[1]	No			
		Link relay (B)[1]	8192 points		1024 points	
	Word devices	Timer (T)[1]	100 ms timer: 200 points 10 ms timer: 56 points 100 ms retentive timer: 0 points (total of up to 2048 points when using extension timer)			
		Retentive timer (ST)[1]				
		Counter (C)[1]	Counter: 1024 points Interrupt counter: 0 points (max. 32 points)		Counter: 256 points Interrupt counter: 0 points (max. 256 points)	
		Data register (D)[1]	8192 points		1024 points	
		Link register (W)[1]	8192 points		1024 points	
		File register[1]	0 points (max. 8192 points)			
Accumulator (A)			2 points (16 bits/point)			
Pointer (P)			256 points			
Interrupt pointer (I)			32 points			
Index register (V, Z)			14 points (16 bits/point)	2 points (16 bits/point)		
Master control nesting (N)			8 points			
Data type			Integer type (16 bits), precision integer type (32 bits), single precision floating-point type (32 bits)			
Function			Floating-point calculation, fixed-point BCD calculation, text string processing, trigonometric function, square root, exponential operation, natural logarithm		No	
Start at power on and at power restoration			Auto restart when "RUN" switch is ON.			
Constant scan			Yes			
Latch (Power failure compensation)			Yes			
Remote RUN, STOP			Yes			
PAUSE			Yes			
Status latch			Yes			
Sampling trace			Yes			
Offline switch			No		Yes	
Step operation			Yes		No	
Clock			Yes			
Online I/O module change (hot-swap)			No			
Interrupt processing			Yes			
Comment			Yes			
Watch dog timer			200 ms (fixed)		Variable	
Microcomputer program area			Exclusively for SFC		For users, packages, SFC	
Self-diagnostic function			Yes			

*1: Indicates the number of points in the default state. This can be changed by the parameters.

*2: The PC MIX value is the average number of instructions such as basic instructions or data processing instructions executed in 1 μs. The processing speed will rise as the value increases.

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A well-developed support system ensures smooth FA operations

Complying with international quality assurance standards.

All of Mitsubishi Electric's FA component products have acquired the international quality assurance "ISO9001" and environment management system standard "ISO14001" certification. Mitsubishi's products also comply with various safety standards, including UL Standards, and shipping standards.

Compatible Standards

Details on each standard certification are disclosed on MELFANSweb.
(http://www.MitsubishiElectric.co.jp/melfansweb/english)

〈**Shipping Standards**〉

LR ······ Lloyd's Register of Shipping approval
DNV ··· Norwegian Maritime approval
RINA ·· Italian Maritime approval
NK ······ ClassNK approval
ABS ··· American Bureau of Shipping approval
BV ······ Bureau Veritas approval
GL ······ Germanischer Lloyd approval

〈**Safety Standards**〉

CE ··· Council directive of the European Communities
UL ··· Underwriter Laboratory Listing

Global FA Center

"Mitsubishi FA Centers" are located throughout North America, Europe and Asia to develop products complying with international standards and to provide attentive services.

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◎**UK FA CENTER**
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The target area: UK, Ireland

◎**KOREAN FA CENTER**
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◎**TIANJIN FA CENTER**
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The target area: Southeast Asia, India

◎**THAILAND FA CENTER**
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Online information for reference and learning…The MELFANSweb offers speedy answers to questions about Mitsubishi FA devices.

MELFANSweb – your source for FA information

The "MELFANSweb" offers a wealth of information concerning Mitsubishi FA devices. Registering over 100,000 hits a day, the site is clearly popular with our customers. The MELFANSweb content includes information about products, an FA terminology glossary, and information about seminars and FA devices, and it represents a powerful resource for users of Mitsubishi FA

MELFANSweb web site URL:

http://www.MitsubishiElectric.co.jp/english/

List of Related Catalogs

01. **MELSEC Q Series Data Book** L (NA) 08029E-B

02. **MELSEC Process Control Catalog** L (NA) 08030E-A

03. **Motion Controller Catalog** L (NA) 03014-B

04. **CC-Link, CC-Link/LT Catalog** L (NA) 08038E-A

05. **CC-Link and CC-Link/LT Compatible Product Databook** L (NA) 08039E-A

06. **MELSOFT Catalog** L (NA) 08008-C

07. **GOT-1000 Series Catalog** L (NA) 08054E

08. **MELSERVO-J2-Super Catalog** L (NA) 03007

09. **MELSERVO-J3-Super Catalog** L (NA) 03017-B

10. **Inverter Family Catalog** L (NA) 06036

WARRANTY

Please confirm the following product warranty details before starting use.

Gratis Warranty Term and Gratis Warranty Range

If any faults or defects (hereinafter "Failure") found to be the responsibility of Mitsubishi occurs during use of the product within the gratis warranty term, the product shall be repaired at no cost via the dealer or Mitsubishi Service Company.
Note that if repairs are required at a site overseas, on a detached island or remote place, expenses to dispatch an engineer shall be charged for. Mitsubishi shall not be held responsible for readjustment and trial operations at the site resulting from replacement of faulty modules.

■Gratis Warranty Term

The gratis warranty term of the product shall be for one year after the date of purchase or delivery to a designated place. Note that after manufacture and shipment from Mitsubishi, the maximum distribution period shall be six (6) months, and the longest gratis warranty term after manufacturing shall be eighteen (18) months. The gratis warranty term of repair parts shall not exceed the gratis warranty term before repairs.

■Gratis Warranty Range

(1) The range shall be limited to normal use within the usage state, usage methods and usage environment, etc., which follow the conditions and precautions, etc., given in the instruction manual, user's manual and caution labels on the product.
(2) Even within the gratis warranty term, repairs shall be charged for in the following cases.
  1. Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.
  2. Failure caused by unapproved modifications, etc., to the product by the user.
  3. When the Mitsubishi product is assembled into a user's device, Failure that could have been avoided if functions or structures, judged as necessary in the legal safety measures the user's device is subject to or as necessary by industry standards, had been provided.
  4. Failure that could have been avoided if consumable parts (battery, backlight, fuse, etc.) designated in the instruction manual had been correctly serviced or replaced.
  5. Failure caused by external irresistible forces such as fires or abnormal voltages, and Failure caused by force majeure such as earthquakes, lightning, wind and water damage.
  6. Failure caused by reasons unpredictable by scientific technology standards at time of shipment from Mitsubishi.
  7. Any other failure found not to be the responsibility of Mitsubishi or the user.

Onerous repair term after discontinuation of production

(1) Mitsubishi shall accept onerous product repairs for seven (7) years after production of the product is discontinued. Discontinuation of production shall be notified with Mitsubishi Technical Bulletins, etc.
(2) Product supply (including repair parts) is not possible after production is discontinued.

Overseas service

Overseas, repairs shall be accepted by Mitsubishi's local overseas FA Center. Note that the repair conditions at each FA Center may differ.

Exclusion of chance loss and secondary loss from warranty liability

Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to damages caused by any cause found not to be the responsibility of Mitsubishi, chance losses, lost profits incurred to the user by Failures of Mitsubishi products, damages and secondary damages caused from special reasons regardless of Mitsubishi's expectations, compensation for accidents, and compensation for damages to products other than Mitsubishi products and other duties. In addition, Mitsubishi shall not be liable for compensation resulting from replacement work carried out by user, readjustment of machinery and facilities at site, trial operation at startup or any other duties.

Changes in product specifications

The specifications given in the catalogs, manuals or technical documents are subject to change without prior notice.

Product application

(1) In using the Mitsubishi MELSEC programmable logic controller, the usage conditions shall be that the application will not lead to a major accident even if any problem or fault should occur in the programmable logic controller device, and that backup and fail-safe functions are systematically provided outside of the device for any problem or fault.
(2) The Mitsubishi general-purpose programmable logic controller has been designed and manufactured for applications in general industries, etc. Thus, applications in which the public could be affected such as in nuclear power plants and other power plants operated by respective power companies, and applications in which a special quality assurance system is required, such as for Railway companies or National Defense purposes shall be excluded from the programmable logic controller applications.
When considering use in aircraft, medical applications, railways, incineration and fuel devices, manned transport devices, equipment for recreation and amusement, and safety devices, in which human life or assets could be greatly affected and for which a particularly high reliability is required in terms of safety and control system, please consult with Mitsubishi and discuss the required specifications. Note that even with these applications, if the user approves that the application is to be limited and a special quality is not required, application shall be possible upon due process of documents.

QnAS

CPU, base, power supply

Product		Type	Outline
CPU		Q2ASCPU	No. of I/O points: 512 points, no. of I/O device points: 8192 points, program capacity: 28 k steps, basic instruction processing speed (LD instruction): 0.20 μs
		Q2ASCPU-S1	No. of I/O points: 1024 points, no. of I/O device points: 8192 points, program capacity: 60 k steps, basic instruction processing speed (LD instruction): 0.20 μs
		Q2ASHCPU	No. of I/O points: 512 points, no. of I/O device points: 8192 points, program capacity: 28 k steps, basic instruction processing speed (LD instruction): 0.075 μs
		Q2ASHCPU-S1	No. of I/O points: 1024 points, no. of I/O device points: 8192 points, program capacity: 60 k steps, basic instruction processing speed (LD instruction): 0.075 μs
Base	Main base	A1S38HB	8 slots, power supply module mountable, for QnAS and AnS Series modules, high-speed access for QnAS Series
		A1S38HBEU	8 slots, power supply module mountable, for QnAS and AnS Series modules, high-speed access for QnAS Series, CE compliant
		A1S38B	8 slots, power supply module mountable, for QnAS/AnS Series modules
		A1S35B	5 slots, power supply module mountable, for QnAS/AnS Series modules
		A1S33B	3 slots, power supply module mountable, for QnAS/AnS Series modules
		A1S32B	2 slots, power supply module mountable, for QnAS/AnS Series modules
	Extension base	A1S58B	8 slots, power supply module unmountable, for QnAS/AnS Series modules
		A1S55B	5 slots, power supply module unmountable, for QnAS/AnS Series modules
		A1S52B	2 slots, power supply module unmountable, for QnAS/AnS Series modules
		A1S68B	8 slots, power supply module mountable, for QnAS/AnS Series modules
		A1S65B	5 slots, power supply module mountable, for QnAS/AnS Series modules
	Extension cable	A1SC01B	For extension base horizontal connection, 0.055 m *One cable per extension base required
		A1SC03B	For extension base connection, 0.3 m *One cable per extension base required
		A1SC07B	For extension base connection, 0.7 m *One cable per extension base required
		A1SC12B	For extension base connection, 1.2 m *One cable per extension base required
		A1SC30B	For extension base connection, 3 m *One cable per extension base required
		A1SC60B	For extension base connection, 6 m *One cable per extension base required
		A1SC05NB	For A5☐B/A6☐B extension base connection, 0.45 m *One cable per extension base required
		A1SC07NB	For A5☐B/A6☐B extension base connection, 0.7 m *One cable per extension base required
		A1SC30NB	For A5☐B/A6☐B extension base connection, 3 m *One cable per extension base required
		A1SC50NB	For A5☐B/A6☐B extension base connection, 5 m *One cable per extension base required
	Blank cover	A1SG60	Blank cover for I/O slot
Power supply		A1S61PN	Input voltage range: 100 to 240 V AC, output voltage: 5 V DC, output current: 5 A
		A1S62PN	Input voltage range: 100 to 240 V AC, output voltage: 5/24 V DC, output current: 3/0.6 A
		A1S63P	Input voltage range: 24 V DC, output voltage: 5 V DC, output current: 5 A
Battery		A6BAT	For IC-RAM memory/A7HGP CMOS back-up
Memory card		Q1MEM-64S	SRAM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 64 KB
		Q1MEM-128S	SRAM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 128 KB
		Q1MEM-256S	SRAM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 256 KB
		Q1MEM-512S	SRAM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 512 KB
		Q1MEM-1MS	SRAM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 1 MB
		Q1MEM-2MS	SRAM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 2 MB
		Q1MEM-64SE	SRAM+E2PROM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 32 KB, E2PROM capacity: 32 KB
		Q1MEM-128SE	SRAM+E2PROM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 64 KB, E2PROM capacity: 64 KB
		Q1MEM-256SE	SRAM+E2PROM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 128 KB, E2PROM capacity: 128 KB
		Q1MEM-512SE	SRAM+E2PROM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 256 KB, E2PROM capacity: 256 KB
		Q1MEM-1MSE	SRAM+E2PROM memory card (JEIDA Ver.4.1 compliant), RAM capacity: 512 KB, E2PROM capacity: 512 KB

QnAS

I/O module

Product			Type	Outline
Input	DC (Positive common)		A1SX40	16 points, 12/24 V DC, 3/7 mA, response time:10 ms, 16 points/common, positive common, 20-point terminal block
			A1SX40-S1	16 points, 24 V DC, 7 mA, response time: 0.2 ms, 16 points/common, positive common, 20-point terminal block, high-speed input
			A1SX40-S2	16 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive common, 20-point terminal block, for high leakage current sensor
			A1SX41	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 32 points/common, positive common, 40-pin connector
			A1SX41-S1	32 points, 24 V DC, 7 mA, response time: 0.3 ms, 32 points/common, positive common, 40-pin connector, high-speed input
			A1SX41-S2	32 points, 24 V DC, 7 mA, response time: 10 ms, 32 points/common, positive common, 40-pin connector, for high leakage current sensor
			A1SX42	64 points, 12/24 V DC, 2/5 mA, response time: 10 ms, 32 points/common, positive common, 40-pin connector
			A1SX42-S1	64 points, 24 V DC, 5 mA, response time: 0.3 ms, 32 points/common, positive common, 40-pin connector, high-speed input
			A1SX42-S2	64 points, 24 V DC, 5 mA response time: 10 ms, 32 points/common, positive common, 40-pin connector, for high leakage current sensor
	Dynamic input		A1S42X	16/32/48/64 points, 12/24 V DC, 4/9 mA, response time: 0.4 ms, 24-pin connector, high-speed dynamic input
	AC100		A1SX10	16 points, 100 to 120 V AC, 6 mA, response time: 35 ms, 16 points/common, 20-point terminal block
			A1SX10EU	16 points, 100 to 120 V AC, 7 mA, response time: 35 ms, 16 points/common, 20-point terminal block, CE compliant
	AC200		A1SX20	16 points, 200 to 240 V AC, 9 mA, response time: 55 ms, 16 points/common, 20-point terminal block
			A1SX20EU	16 points, 200 to 240 V AC, 11 mA, response time: 55 ms, 16 points/common, 20-point terminal block, CE compliant
	DC (Positive/negative common)		A1SX71	32 points, 5/12/24 V DC, 1.2/3.3/7 mA, response time: 3 ms, 32 points/common, positive/negative common, 40-pin connector
			A1SX80	16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common, 20-point terminal block
			A1SX80-S1	16 points, 24 V DC, 7 mA, response time: 0.5 ms, 16 points/common, positive/negative common, 20-point terminal block, high-speed input
			A1SX80-S2	16 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive/negative common, 20-point terminal block, for high leakage current sensor
			A1SX81	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 32 points/common, positive/negative common, 37-pin D-sub connector
			A1SX81-S2	32 points, 24 V DC, 7 mA, response time: 10 ms, 32 points/common, positive/negative common, 37-pin D-sub connector, for high leakage current sensor
			A1SX82-S1	64 points, 24 V DC, 5 mA, response time: 0.3 ms, 32 points/common, positive/negative common, 40-pin connector, high-speed input
	AC/DC		A1SX30	16 points, 12 V DC/24 V DC/12 V AC/24 V AC, 4.2 mA (12 V DC, 12 V AC)/8.6 mA (24 V DC, 24 V AC), response time: 2.5 ms, 16 points/common, 20-point terminal block

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I/O module

Product		Type	Outline
Output	Relay	A1SY10	16 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 8 points/common, 20-point terminal block
		A1SY10EU	16 points, 24 V DC/120 V AC, 2 A/point, 8 A/common, response time: 12 ms, 8 points/common, 20-point terminal block, CE compliant
		A1SY14EU	12 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 4 points/common, 20-point terminal block, CE compliant
		A1SY18A	8 points, 24 V DC/240 V AC, 2 A/point, 8 A/module, response time: 12 ms, all points independent, 20-point terminal block
		A1SY18AEU	8 points, 24 V DC/240 V AC, 2 A/point, response time: 12 ms, all points independent, 20-point terminal block, CE compliant
	Triac	A1SY22	16 points, 100/240 V AC, leakage at OFF: 1.5 mA (120 V AC), 3 mA (240 V AC), response time: 0.5 Hz + 1 ms, 8 points/common, 20-point terminal block, with fuse and surge suppressor
		A1SY28A	8 points, 100 to 240 V AC, leakage at OFF: 1.5 mA (120 V AC), 3 mA (240 V AC), response time: 0.5 Hz + 1 ms, all points independent, 20-point terminal block, with surge suppressor
	Dynamic output	A1S42Y	16/32/48/64 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 24-pin connector, with fuse, dynamic output
	Transistor (Sink)	A1SY40	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type, 20-point terminal block, with fuse and surge suppressor
		A1SY41	32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, sink type, 40-pin connector, with fuse and surge suppressor
		A1SY40P	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 1 ms, 8 points/common, sink type, 20-point terminal block, with thermal/short-circuit protection and surge suppressor
		A1SY41P	32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 1 ms, 32 points/common, sink type, 40-pin connector, with thermal/short-circuit protection and surge suppressor
		A1SY42P	64 points, 2/24 V DC, leakage at OFF: 0.1 mA, response time: 1 ms, 32 points/common, sink type, 40-pin connector, with thermal/short-circuit protection and surge suppressor
		A1SY50	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type, 20-point terminal block, with fuse and surge suppressor
		A1SY60	16 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type, 20-point terminal block, with fuse and surge suppressor
	Transistor (Source)	A1SY60E	16 points, 5/12/24 V DC, leakage at OFF: 0.1 mA, response time: 10 ms, 8 points/common, source type, 20-point terminal block, with fuse and surge suppressor
	Transistor	A1SY68A	8 points, 5/12/24/48 V DC, leakage at OFF: 0.1 mA, response time: 10 ms, all points independent, 20-point terminal block, with surge suppressor
	TTL CMOS	A1SY71	32 points, 5/12 V DC, response time: 1 ms, 32 points/common, sink type, 40-pin connector, with fuse
	Transistor (Source)	A1SY80	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, source type, 20-point terminal block, with fuse and surge suppressor
		A1SY81	32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, source type, 37-pin D-sub connector, with fuse and surge suppressor
		A1SY82	64 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, source type, 40-pin connector, with fuse and surge suppressor
I/O	DC/transistor	A1SH42	Input: 32 points, 12/24 V DC, 2/5 mA, response time: 10 ms, 32 points/common; output 32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, with fuse and surge suppressor; 40-pin connector
		A1SH42-S1	Input: 32 points, 24 V DC, 5 mA, response time: 0.3 ms, 32 points/common; output 32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, with fuse and surge suppressor; 40-pin connector
	DC/relay	A1SX48Y18	Input: 8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive common; output 8 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 8 points/common; 20-point terminal block
		A1SJ-56DR	Input: 32 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive common; output 24 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common; 34-point terminal block
	DC/transistor	A1SX48Y58	Input: 8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive common; output 8 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, with fuse and surge suppressor; 20-point terminal block
		A1SJ-56DT	Input: 32 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive common; output 24 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, with surge suppressor; 34-point terminal block

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Product List

QnAS

I/O module

Product		Type	Outline
Connector		A6CON1	40-pin connector, soldering type
		A6CON2	40-pin connector, crimp-contact type
		A6CON3	40-pin connector, IDC for flat cables
		A6CON4	40-pin connector, soldering type (bidirectional cable connectable)
		A6CON1E	37-pin D-sub connector, soldering type
		A6CON2E	37-pin D-sub connector, crimp-contact type
		A6CON3E	37-pin D-sub connector, IDC for flat cables
Connector/terminal block conversion module		A6TBX36-E	For negative common input modules (standard type)
		A6TBX54-E	For negative common input modules (2-wire type)
		A6TBX70	For positive common input modules (3-wire type)
		A6TBX70-E	For negative common input modules (3-wire type)
		A6TBY36-E	For source type output modules (standard type)
		A6TBY54-E	For source type output modules (2-wire type)
		A6TBXY36	For positive common input modules and sink type output modules (standard type)
		A6TBXY54	For positive common input modules and sink type output modules (2-wire type)
Connector/ terminal block conversion module	Cable	AC05TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 0.5 m
		AC10TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 1 m
		AC20TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 2 m
		AC30TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 3 m
		AC50TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 5 m
		AC80TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 8 m *Common power supply 0.5 A or lower
		AC100TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 10 m *Common power supply 0.5 A or lower
		AC05TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 0.5 m
		AC10TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 1 m
		AC20TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 2 m
		AC30TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 3 m
		AC50TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 5 m
Relay terminal module		A6TE2-16SRN	16 points, 24 V DC/240 V AC, ZA/point, 8 A/common, response time: 12 ms, 8 points/common, 40-pin connector
Relay terminal module	Cable	AC06TE	For A6TE2-16SRN, 0.6 m
		AC10TE	For A6TE2-16SRN, 1 m
		AC30TE	For A6TE2-16SRN, 3 m
		AC50TE	For A6TE2-16SRN, 5 m
		AC100TE	For A6TE2-16SRN, 10 m
Interrupt input		A1SI61	Interrupt input: 16 points, 12/24 V DC, 4/8 mA, response time: 0.2 ms, 16 points/common, 20-point terminal block
Dummy module		A1SG62	16/32/48/64-point dummy module
Conversion adapter	AnS conversion adapter	A1S-TA32	32-point IDC terminal block adapter, 0.5 mm^2 (AWG20)
		A1S-TA32-3	32-point IDC terminal block adapter, 0.3 mm^2 (AWG22)
		A1S-TA32-7	32-point IDC terminal block adapter, 0.75 mm^2 (AWG18)
		A1S-TB32	32-point terminal block adapter, 0.14 to 0.75 mm^2 (AWG26 to 18), for conversion to European type terminal block
Pulse catch		A1SP60	Input: 16 points, 24 V DC, 7 mA, response time: 1.0 ms, 16 points/common, positive/negative common, 20-point terminal block, pulse catch function (minimum input pulse width: 0.5 ms)
Analog timer		A1ST60	No. of timer points: 8 points; timer setting ranges: 0.1 to 1.0 s, 1 to 10 s, 10 to 60 s, 60 to 600 s
Protective cover		A1STEC-S	A1S terminal block cover short

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Analog I/O module

Product		Type	Outline
Analog input	Voltage/ current input	A1S64AD	4 channels; input: -10 to 10 V DC, -20 to 20 mA; output (resolution): -4000 to 4000, -8000 to 8000, -12000 to 12000; conversion speed: 20 ms/channel; 20-point terminal block
		A1S68AD	8 channels; input: -10 to 10 V DC, 0 to 20 mA; output (resolution): 0 to 4000, -2000 to 2000; conversion speed: 0.5 ms/channel; 20-point terminal block
Analog output	Voltage/ current output	A1S62DA	2 channels; input (resolution): -4000 to 4000, 0 to 4000 / -8000 to 8000, 0 to 8000 / -12000 to 12000, 0 to 12000; output: -10 to 10 V DC, 0 to 20 mA; conversion speed: 25 ms/2 channels; 20-point terminal block
		A1S68DAV	8 channels, input (resolution): -2000 to 2000, output: -10 to 10 V DC, conversion speed: 4 ms/8 channels, 20-point terminal block
		A1S68DAI	8 channels, input (resolution): 0 to 4000, output: 4 to 20 mA DC, conversion speed: 4 ms/8 channels, 20-point terminal block
Analog I/O		A1S63ADA	Analog input: 2 channels; input: -10 to 10 V DC, -20 to 20 mA; analog output: 1 channel; output: -10 to 10 V DC, 0 to 20 mA; resolution: 1/4000, 1/8000, 1/12000; conversion speed: 3 ms/channel (at 1/12000); 20-point terminal block
		A1S66ADA	Analog input: 4 channels; analog output: 2 channels; analog I/O: -10 to 10 V DC, 0 to 20 mA; resolution: 1/4000; conversion speed: 400 μs/4 channels (analog input), 240 μs/2 channels (analog output); 20-point terminal block
Temperature input	Platinum RTD	A1S62RD3N	2 channels, 3-wire type platinum RTD (Pt100 [JIS C1604-1997, IEC 751-am2, JIS C1604-1989, DIN 43760-1980], JPt100 [JIS C1604-1981]), conversion speed: 40 ms/channel, 20-point terminal block
		A1S62RD4N	2 channels, 4-wire type platinum RTD (Pt100 [JIS C1604-1997, IEC 751-am2, JIS C1604-1989, DIN 43760-1980], JPt100 [JIS C1604-1981]), conversion speed: 40 ms/channel, 20-point terminal block
	Thermocouple	A1S68TD	8 channels, thermocouple (K, E, J, T, B, R, S), conversion speed: 400 ms/8 channels, 20-point terminal block
Temperature control		A1S64TCTRT	Standard control: 4 channels, heating-cooling control: 2 channels; thermocouple (K, J, T, B, S, E, R, N, U, L, PLII, W5Re/W26Re), platinum RTD (Pt100, JPt100); sampling cycle: 0.5 s/4 channels (standard control), 0.5 s/2 channels, (heating-cooling control); 20-point terminal block
		A1S64TCTRTBW	Standard control: 4 channels, heating-cooling control: 2 channels; thermocouple (K, J, T, B, S, E, R, N, U, L, PLII, W5Re/W26Re), platinum RTD (Pt100, JPt100); sampling cycle: 0.5 s/4 channels (standard control), 0.5 s/2 channels, (heating-cooling control); with heater disconneciton detection; 20-point terminal block

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Pulse I/O and positioning module

Product			Type	Outline
High speed counter			A1SD61	1 channel; 50/10 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; comparison output: transistor (open collector), 12/24 V DC, 0.1 A/point, 0.8 A/common; 20-point terminal block
			A1SD62	2 channels; 100/10 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; coincidence output: transistor (sink), 12/24 V DC, 0.5 A/point, 2 A/common; 20-point terminal block
			A1SD62E	2 channels; 100/10 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; coinidence output: transistor (source), 12/24 V DC, 0.1 A/point, 0.4 A/common; 20-point terminal block
			A1SD62D	2 channels; 200/10 kpps; count input signal: RS-422-A (differential line driver); external input: 5/12/24 V DC, coincidence output: transistor (sink), 12/24 V DC, 0.5 A/point, 2 A/common; 20-point terminal block
			A1SD62D-S1	2 channels; 200/10 kpps; count input signal: RS-422-A (differential line driver); external input: RS-422-A (differential line driver); coincidence output: transistor (sink), 12/24 V DC, 0.5 A/point, 2 A/common; 20-point terminal block
Positioning			A1SD70	1 axis, control unit: pulse, no. of positioning data: 1 piece/axis, 15-pin connector/9-pin connector, analog voltage output (-10 to 10 V DC)
Positioning	Open collector output/ Differential output		A1SD75P1-S3	1 axis; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; max. output pulse: 400 kpps (differential driver), 200 kpps (open collector); 36-pin connector
			A1SD75P2-S3	2 axes; 2-axis linear interpolation/ 2-axis circular interpolation; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; max. output pulse: 400 kpps (differential driver), 200 kpps (open collector); 36-pin connector
			A1SD75P3-S3	3 axes; 2-axis linear interpolation/ 2-axis circular interpolation; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; max. output pulse: 400 kpps (differential driver), 200 kpps (open collector); 36-pin connector
	SSCNET connection		A1SD75M1	1 axis; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; 36-pin connector; SSCNET connection
			A1SD75M2	2 axes; 2-axis linear interpolation/ 2-axis circular interpolation; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; 36-pin connector; SSCNET connection
			A1SD75M3	3 axes; 2-axis linear interpolation/ 2-axis circular interpolation; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis 36-pin connector; SSCNET connection
	Cable		AD75C20SC	Cable for connecting AD75P□/A1SD75P□ positioning module and MR-C□A, 2 m
			AD75C20SH	Cable for connecting AD75P□/A1SD75P□ positioning module and MR-H□A, 2 m
			AD75C20SJ	Cable for connecting AD75P□/A1SD75P□ positioning module and MR-J□A, 2 m
			AD75C20SJ2	Cable for connecting AD75P□/A1SD75P□ positioning module and MR-J2□A, 2 m
			AD75C20SNH	Cable for connecting AJ65BT-D75P2-S3 positioning module and MR-H□A, 2 m
			AD75C20SNJ2	Cable for connecting AJ65BT-D75P2-S3 positioning module and MR-J2/J2S, 2 m
			A1SD75-C01HA	Conversion cable for connecting A1SD75P□/M□ and peripheral devices
	Bracket		AD75CK	Cable clamp bracket for AD75, GOT
	Teaching unit		AD75TU	Handy type; positioning data writing, reading, testing, monitoring, etc; positioning data back-up (cassette I/F function)
			AD71TU	Handy type; positioning data writing, reading, testing, monitoring, etc.
Position detection			A1S62LS	No. of position detection axes: 1, resolution: 4096 × 32 rotations to 409.6 × 320 rotations, no. of output channels: 16

Information module

		Type	Outline
Ethernet		A1SJ71QE71N3-T	10BASE-T
		A1SJ71QE71N-B2	10BASE2
		A1SJ71QE71N-B5	10BASE5
Serial communication		A1SJ71QC24N1	RS-232: 1 channel, RS-422/485: 1 channel, transmission speed: 2 channels can be used simultaneously at 115.2 kbps
		A1SJ71QC24N1-R2	RS-232: 2 channels, transmission speed: 2 channels can be used simultaneously at 115.2 kbps
Intelligent communication		A1SD51S	BASIC program execution module, RS-232: 2 channels, RS-422/485: 1 channel
		SW□IVD-AD51HP	Software package for QD51H, AD51H-S3, A1SD51S
Memory card interface		A1SD59J-S2	Memory card interface (A1SD59J-MIF external attachment)
		A1SD59J-MIF	A1SD59J-S2 dedicated memory card module
Memory card interface	Cable	AC20MIF-L	Cable for connecting A1SD59J-S2 and A1SD59J-MIF, 2 m

QnAS

Control network module

Product		Type	Outline
CC-Link		A1SJ61QBT11	Master/local station, for QnASCPU
AS-i		A1SJ71AS92	AS-i system master module
MELSEC NET/10	SI/QSI optical cable	A1SJ71QLP21	SI/QSI/H-PCF/broadband H-PCF optical cable, double loop, PLC-to-PLC network (control/normal station)/remote I/O network (remote master station)
		A1SJ71QLP21S	SI/QSI/H-PCF/broadband H-PCF optical cable, double loop, PLC-to-PLC network (control/normal station)/remote I/O network (remote master station), with external supply power function
	Coaxial cable	A1SJ71QLR21	3C-2V/5C-2V coaxial cable, double loop, PLC-to-PLC network (control/normal station)/remote I/O network (remote master station)
	SI/QSI optical cable	A1SJ72QLP25	SI/QSI/H-PCF/broadband H-PCF optical cable, double loop, remote I/O network (remote I/O station)
	Coaxial cable	A1SJ72QLR25	3C-2V/5C-2V coaxial cable, double loop, remote I/O network (remote I/O station)
		A1SJ71QBR11	3C-2V/5C-2V coaxial cable, single bus, PLC-to-PLC network (control/normal station)/remote I/O network (remote master station)
		A1SJ72QBR15	3C-2V/5C-2V coaxial cable, single bus, remote I/O network (remote I/O station)
MELSECNET(II)		A1SJ71AP21	SI-200/250 optical cable, double loop, MELSECNET(II) master/local station
		A1SJ71AR21	3C-2V/5C-2V coaxial cable, double, loop MELSECNET(II) master/local station
MELSEC NET(II)	Optical bypass switch	A6BSW-P-S3	Main station side (IN/OUT): SI optical cable, opposite station side (IN/OUT): SI optical cable, for optical data link faulty station bypass, station to station extension
		A6BSW-P-S4	Main station side (IN/OUT): SI optical cable, opposite station side IN: GI optical cable, opposite station side OUT: SI optical cable, for optical data link faulty station bypass, station to station extension, cable conversion
		A6BSW-P-S5	Main station side (IN/OUT): SI optical cable, opposite station side (IN/OUT): GI optical cable, for optical data link faulty station bypass, station to station extension, cable conversion
		A6BSW-P-S6	Main station side (IN/OUT): GI optical cable, opposite station side (IN/OUT): GI optical cable, for optical data link faulty station bypass, station to station extension
		A6BSW-P-S7	Main station side (IN/OUT): GI optical cable, opposite station side (IN/OUT): SI optical cable, for optical data link faulty station bypass, station to station extension, cable conversion
	Coxial tap	A6BSW-R	Coaxial data link faulty station bypass, slave station extendable, master station redundancy operation switching
MELSECNET/B		A1SJ71AT21B	Twisted pair cable, single bus, MELSECNET/B (master/local station)
		A1SJ72T25B*1	Twisted pair cable, single bus, MELSECNET/B (remote I/O station)
MELSECNET/MINI-S3		A1SJ71PT32-S3	Optical/twisted pair cable master module
MELSECNET/MINI-S3	Transmission converter	AJ35PTC-CNV	Twisted pair cable/plastic fiber cable converter (bidirectional conversion), for MELSECNET/MINI, A2C
MELSEC-I/O Link		A1SJ51T64	Twisted pair/cab-tire cable, single bus, MELSEC-I/O Link (master module)
B/NET		A1SJ71B62-S3	Transmission signal device B/NET interface module for power distribution controller
JEMANET(OPCN-1)		A1SJ71J92-S3	JEMANET(OPCN-1) interface module, master station
		A1SJ72J95	JEMANET(OPCN-1) interface module, slave station

Peripheral devices

Programming module	Cable	AC300R4	Cable for connecting CPU and A7HGP/A6GPP, 30 m
Intelligent GPP	Cable	AC30N2A	Cable for connecting peripheral devices and A/QnA Series CPU
Programming module		Q6PU	Program input device connected to CPU, for QnACPU
Programming module	Cable	AC20R4-EX	GPP cable for panel front relay, 2 m
		AC30R4	Cable for connecting CPU and A7PU/A7HGP/A6GPP, 3 m *A7HGP-SET/A6GPP-SET provided
Modem interface module		Q6TEL	Interface module to connect peripheral devices to the telephone line

ID System

ID interface	A1SD35ID1	Reader/writer 1-channel connection, for AnSCPU/QnASCPU
	A1SD35ID2	Reader/writer 2-channel connection, for AnSCPU/QnASCPU

*1 The production will be discontinued at the end of September, 2008.

AnS

CPU, base, power supply

Product		Type	Outline
CPU		A1SCPUC24-R2	No. of I/O points: 256 points, no. of I/O device points: 256 points, program capacity: 8 k steps, basic instruction processing speed (LD instruction):1.0 μs, built-in RAM memory capacity: 32 KB, with computer link function
		A1SHCPU	No. of I/O points: 256 points, no. of I/O device points: 256 points, program capacity: 8 k steps, basic instruction processing speed (LD instruction): 0.33 μs, built-in RAM memory capacity: 64 KB
		A1SJHCPU	No. of I/O points: 256 points, no. of I/O device points: 256 points, program capacity: 8 k steps, basic instruction processing speed (LD instruction): 0.33 μs, built-in RAM memory capacity: 64 KB, 5 slots, 100 to 240 V AC input/5 V DC 3 A output power supply
		A2SHCPU	No. of I/O points: 512 points, no. of I/O device points: 512 points, program capacity: 14 k steps, basic instruction processing speed (LD instruction): 0.25 μs, built-in RAM memory capacity: 64 KB
		A2USCPU	No. of I/O points: 512 points, no. of I/O device points: 8192 points, program capacity: 14 k steps, basic instruction processing speed (LD instruction): 0.2 μs, built-in RAM memory capacity: 64 KB
		A2USHCPU-S1	No. of I/O points: 1024 points, no. of I/O device points: 8192 points, program capacity: 30 k steps, basic instruction processing speed (LD instruction): 0.09 μs, built-in RAM memory capacity: 256 KB
Base	Main base	A1S38B	8 slots, power supply module mountable, for QnAS/AnS Series modules
		A1S35B	5 slots, power supply module mountable, for QnAS/AnS Series modules
		A1S33B	3 slots, power supply module mountable, for QnAS/AnS Series modules
		A1S32B	2 slots, power supply module mountable, for QnAS/AnS Series modules
	Extension base	A1S58B	8 slots, power supply module unmountable, for QnAS/AnS series modules
		A1S55B	5 slots, power supply module unmountable, for QnAS/AnS series modules
		A1S52B	2 slots, power supply module unmountable, for QnAS/AnS series modules
		A1S68B	8 slots, power supply module mountable, for QnAS/AnS Series modules
		A1S65B	5 slots, power supply module mountable, for QnAS/AnS Series modules
	Extension cable	A1SC01B	For extension base horizontal connection, 0.055 m * One cable per extension base required
		A1SC03B	For extension base connection, 0.3 m * One cable per extension base required
		A1SC07B	For extension base connection, 0.7 m * One cable per extension base required
		A1SC12B	For extension base connection, 1.2 m * One cable per extension base required
		A1SC30B	For extension base connection, 3 m * One cable per extension base required
		A1SC60B	For extension base connection, 6 m * One cable per extension base required
		A1SC05NB	For A5☐B/A6☐B extension base connection, 0.45 m * One cable per extension base required
		A1SC07NB	For A5☐B/A6☐B extension base connection, 0.7 m * One cable per extension base required
		A1SC30NB	For A5☐B/A6☐B extension base connection, 3 m * One cable per extension base required
		A1SC50NB	For A5☐B/A6☐B extension base connection, 5 m * One cable per extension base required
	Blank cover	A1SG60	Blank cover for I/O slot
Power supply		A1S61PN	Input voltage range: 100 to 240 V AC, output voltage: 5 V DC, output current: 5 A
		A1S62PN	Input voltage range: 100 to 240 V AC, output voltage: 5/24 V DC, output current: 3/0.6 A
		A1S63P	Input voltage range: 24 V DC, output voltage: 5 V DC, output current: 5 A
Battery		A6BAT	For IC-RAM memory/A7HGP CMOS back-up
Memory cassette		A1SNMCA-2KE	Program capacity: 2 k steps, EEPROM cassette (exclusively for A1S, A1SH, A1SJ, and A1SJH)
		A1SNMCA-8KE	Program capacity: 8 k steps, EEPROM cassette (exclusively for A1S, A1SH, A1SJ, and A1SJH)
		A1SNMCA-8KP	Program capacity: 8 k steps, EPROM cassette (exclusively for A1S, A1SH, A1SJ, and A1SJH)
		A2SNMCA-30KE	Program capacity: 30 k steps, EEPROM cassette (for A2S, A2SH, A2US(S1), and A2USH-S1)

AnS

I/O module

Product			Type	Outline
Input	DC (Positive common)		A1SX40	16 points, 12/24 V DC, 3/7 mA, response time:10 ms, 16 points/common, positive common, 20-point terminal block
			A1SX40-S1	16 points, 24 V DC, 7 mA, response time: 0.2 ms, 16 points/common, positive common, 20-point terminal block, high-speed input
			A1SX40-S2	16 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive common, 20-point terminal block, for high leakage current sensor
			A1SX41	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 32 points/common, positive common, 40-pin connector
			A1SX41-S1	32 points, 24 V DC, 7 mA, response time: 0.3 ms, 32 points/common, positive common, 40-pin connector, high-speed input
			A1SX41-S2	32 points, 24 V DC, 7 mA, response time: 10 ms, 32 points/common, positive common, 40-pin connector, for high leakage current sensor
			A1SX42	64 points, 12/24 V DC, 2/5 mA, response time: 10 ms, 32 points/common, positive common, 40-pin connector
			A1SX42-S1	64 points, 24 V DC, 5 mA, response time: 0.3 ms, 32 points/common, positive common, 40-pin connector, high-speed input
			A1SX42-S2	64 points, 24 V DC, 5 mA response time: 10 ms, 32 points/common, positive common, 40-pin connector, for high leakage current sensor
	Dynamic input		A1S42X	16/32/48/64 points, 12/24 V DC, 4/9 mA, response time: 0.4 ms, 24-pin connector, high-speed dynamic input
	AC100		A1SX10	16 points, 100 to 120 V AC, 6 mA, response time: 35 ms, 16 points/common, 20-point terminal block
			A1SX10EU	16 points, 100 to 120 V AC, 7 mA, response time: 35 ms, 16 points/common, 20-point terminal block, CE compliant
	AC200		A1SX20	16 points, 200 to 240 V AC, 9 mA, response time: 55 ms, 16 points/common, 20-point terminal block
			A1SX20EU	16 points, 200 to 240 V AC, 11 mA, response time: 55 ms, 16 points/common, 20-point terminal block, CE compliant
	DC (Positive/negative common)		A1SX71	32 points, 5/12/24 V DC, 1.2/3.3/7 mA, response time: 3 ms, 32 points/common, positive/negative common, 40-pin connector
			A1SX80	16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common, 20-point terminal block
			A1SX80-S1	16 points, 24 V DC, 7 mA, response time: 0.5 ms, 16 points/common, positive/negative common, 20-point terminal block, high-speed input
			A1SX80-S2	16 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive/negative common, 20-point terminal block, for high leakage current sensor
			A1SX81	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 32 points/common, positive/negative common, 37-pin D-sub connector
			A1SX81-S2	32 points, 24 V DC, 7 mA, response time: 10 ms, 32 points/common, positive/negative common, 37-pin D-sub connector, for high leakage current sensor
			A1SX82-S1	64 points, 24 V DC, 5 mA, response time: 0.3 ms, 32 points/common, positive/negative common, 40-pin connector, high-speed input
	AC/DC		A1SX30	16 points, 12 V DC/24 V DC/12 V AC/24 V AC, 4.2 mA (12 V DC, 12 V AC)/8.6 mA (24 V DC, 24 V AC), response time: 2.5 ms, 16 points/common, 20-point terminal block

Product List

AnS

I/O module

Product		Type	Outline
Output	Relay	A1SY10	16 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 8 points/common, 20-point terminal block
		A1SY10EU	16 points, 24 V DC/120 V AC, 2 A/point, 8 A/common, response time: 12 ms, 8 points/common, 20-point terminal block, CE compliant
		A1SY14EU	12 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 4 points/common, 20-point terminal block, CE compliant
		A1SY18A	8 points, 24 V DC/240 V AC, 2 A/point, 8 A/module, response time: 12 ms, all points independent, 20-point terminal block
		A1SY18AEU	8 points, 24 V DC/240 V AC, 2 A/point, response time: 12 ms, all points independent, 20-point terminal block, CE compliant
	Triac	A1SY22	16 points, 100/240 V AC, leakage at OFF: 1.5 mA (120 V AC), 3 mA (240 V AC), response time: 0.5 Hz + 1 ms, 8 points/common, 20-point terminal block, with fuse and surge suppressor
		A1SY28A	8 points, 100 to 240 V AC, leakage at OFF: 1.5 mA (120 V AC), 3 mA (240 V AC), response time: 0.5 Hz + 1 ms, all points independent, 20-point terminal block, with surge suppressor
	Dynamic output	A1S42Y	16/32/48/64 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 24-pin connector, with fuse, dynamic output
	Transistor (Sink)	A1SY40	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type, 20-point terminal block, with fuse and surge suppressor
		A1SY41	32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, sink type, 40-pin connector, with fuse and surge suppressor
		A1SY40P	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 1 ms, 8 points/common, sink type, 20-point terminal block, with thermal/short-circuit protection and surge suppressor
		A1SY41P	32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 1 ms, 32 points/common, sink type, 40-pin connector, with thermal/short-circuit protection and surge suppressor
		A1SY42P	64 points, 2/24 V DC, leakage at OFF: 0.1 mA, response time: 1ms, 32 points/common, sink type, 40-pin connector, with thermal/short-circuit protection and surge suppressor
		A1SY50	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type, 20-point terminal block, with fuse and surge suppressor
		A1SY60	16 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type, 20-point terminal block, with fuse and surge suppressor
	Transistor (Source)	A1SY60E	16 points, 5/12/24 V DC, leakage at OFF: 0.1 mA, response time: 10 ms, 8 points/common, source type, 20-point terminal block, with fuse and surge suppressor
	Transistor	A1SY68A	8 points, 5/12/24/48 V DC, leakage at OFF: 0.1 mA, response time: 10 ms, all points independent, 20-point terminal block, with surge suppressor
	TTL CMOS	A1SY71	32 points, 5/12 V DC, response time: 1 ms, 32 points/common, sink type, 40-pin connector, with fuse
	Transistor (Source)	A1SY80	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, source type, 20-point terminal block, with fuse and surge suppressor
		A1SY81	32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, source type, 37-pin D-sub connector, with fuse and surge suppressor
		A1SY82	64 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, source type, 40-pin connector, with fuse and surge suppressor
I/O	DC/transistor	A1SH42	Input: 32 points, 12/24 V DC, 2/5 mA, response time: 10 ms, 32 points/common; output 32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, with fuse and surge suppressor; 40-pin connector
		A1SH42-S1	Input: 32 points, 24 V DC, 5 mA, response time: 0.3 ms, 32 points/common; output 32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, with fuse and surge suppressor; 40-pin connector
	DC/relay	A1SX48Y18	Input: 8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive common; output 8 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 8 points/common; 20-point terminal block
		A1SJ-56DR	Input: 32 points, 24 V DC, 7 mA, response time: 10ms, 16 points/common, positive common; output 24 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common; 34-point terminal block
	DC/transistor	A1SX48Y58	Input: 8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive common; output 8 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, with fuse and surge suppressor; 20-point terminal block
		A1SJ-56DT	Input: 32 points, 24 V DC, 7 mA, response time: 10ms, 16 points/common, positive common; output 24 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, with surge suppressor; 34-point terminal block

AnS

I/O module

Product		Type	Outline
Connector		A6CON1	40-pin connector, soldering type
		A6CON2	40-pin connector, crimp-contact type
		A6CON3	40-pin connector, IDC for flat cables
		A6CON4	40-pin connector, soldering type (bidirectional cable connectable)
		A6CON1E	37-pin D-sub connector, soldering type
		A6CON2E	37-pin D-sub connector, crimp-contact type
		A6CON3E	37-pin D-sub connector, IDC for flat cables
Connector/terminal block conversion module		A6TBX36-E	For negative common input modules (standard type)
		A6TBX54-E	For negative common input modules (2-wire type)
		A6TBX70	For positive common input modules (3-wire type)
		A6TBX70-E	For negative common input modules (3-wire type)
		A6TBY36-E	For source type output modules (standard type)
		A6TBY54-E	For source type output modules (2-wire type)
		A6TBXY36	For positive common input modules and sink type output modules (standard type)
		A6TBXY54	For positive common input modules and sink type output modules (2-wire type)
Connector/ terminal block conversion module	Cable	AC05TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 0.5 m
		AC10TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 1 m
		AC20TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 2 m
		AC30TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 3 m
		AC50TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 5 m
		AC80TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 8 m *Common power supply 0.5 A or lower
		AC100TB	For A6TBXY36, A6TBXY54, A6TBX70 (for positive common / sink type); 10 m *Common power supply 0.5 A or lower
		AC05TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 0.5 m
		AC10TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 1 m
		AC20TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 2 m
		AC30TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 3 m
		AC50TB-E	For A6TBX36-E, A6TBY36-E, A6TBX54-E, A6TBY54-E, A6TBX70-E (for negative common / source type); 5 m
Relay terminal module		A6TE2-16SRN	16 points, 24 V DC/240 VAC, ZA/point, 8 A/common, response time: 12 ms, 8 points/common, 40-pin connector
Relay terminal module	Cable	AC06TE	For A6TE2-16SRN, 0.6 m
		AC10TE	For A6TE2-16SRN, 1 m
		AC30TE	For A6TE2-16SRN, 3 m
		AC50TE	For A6TE2-16SRN, 5 m
		AC100TE	For A6TE2-16SRN, 10 m
Interrupt input		A1SI61	Interrupt input: 16 points, 12/24 V DC, 4/8 mA, response time: 0.2 ms, 16 points/common, 20-point terminal block
Dummy module		A1SG62	16/32/48/64-point dummy module
Conversion adapter	AnS conversion adapter	A1S-TA32	32-point IDC terminal block adapter, 0.5 mm² (AWG20)
		A1S-TA32-3	32-point IDC terminal block adapter, 0.3 mm² (AWG22)
		A1S-TA32-7	32-point IDC terminal block adapter, 0.75 mm² (AWG18)
		A1S-TB32	32-point terminal block adapter, 0.14 to 0.75 mm² (AWG26 to 18), for conversion to European type terminal block
Pulse catch		A1SP60	Input: 16 points, 24 V DC, 7 mA, response time: 1.0 ms, 16 points/common, positive/negative common, 20-point terminal block, pulse catch function (minimum input pulse width: 0.5 ms)
Analog timer		A1ST60	No. of timer points: 8 points; timer setting ranges: 0.1 to 1.0 s, 1 to 10 s, 10 to 60 s, 60 to 600 s
Protective cover		A1STEC-S	A1S terminal block cover short

Product List

AnS

Analog I/O module

Product		Type	Outline
Analog input	Voltage/ current input	A1S64AD	4 channels; input: -10 to 10 V DC, -20 to 20 mA; output (resolution): -4000 to 4000, -8000 to 8000, -12000 to 12000; conversion speed: 20 ms/channel; 20-point terminal block
		A1S68AD	8 channels; input: -10 to 10 V DC, 0 to 20 mA; output (resolution): 0 to 4000, -2000 to 2000; conversion speed: 0.5 ms/channel; 20-point terminal block
Analog output	Voltage/ current output	A1S62DA	2 channels; input (resolution): -4000 to 4000, 0 to 4000 / -8000 to 8000, 0 to 8000 / -12000 to 12000, 0 to 12000; output: -10 to 10 V DC, 0 to 20 mA; conversion speed: 25 ms/2 channels; 20-point terminal block
		A1S68DAV	8 channels, input (resolution): -2000 to 2000, output: -10 to 10 V DC, conversion speed: 4 ms/8 channels, 20-point terminal block
		A1S68DAI	8 channels, input (resolution): 0 to 4000, output: 4 to 20 mA DC, conversion speed: 4 ms/8 channels, 20-point terminal block
Analog I/O		A1S63ADA	Analog input: 2 channels; input: -10 to 10 V DC, -20 to 20 mA; analog output: 1 channel; output: -10 to 10 V DC, 0 to 20 mA; resolution: 1/4000, 1/8000, 1/12000; conversion speed: 3 ms/channel (at 1/12000); 20-point terminal block
		A1S66ADA	Analog input: 4 channels; analog output: 2 channels; analog I/O: -10 to 10 V DC, 0 to 20 mA; resolution: 1/4000; conversion speed: 400 μs/4 channels (analog input), 240 μs/2 channels (analog output); 20-point terminal block
Temperature input	Platinum RTD	A1S62RD3N	2 channels, 3-wire type platinum RTD (Pt100 [JIS C1604-1997, IEC 751-am2, JIS C1604-1989, DIN 43760-1980], JPt100 [JIS C1604-1981]), conversion speed: 40 ms/channel, 20-point terminal block
		A1S62RD4N	2 channels, 4-wire type platinum RTD (Pt100 [JIS C1604-1997, IEC 751-am2, JIS C1604-1989, DIN 43760-1980], JPt100 [JIS C1604-1981]), conversion speed: 40 ms/channel, 20-point terminal block
	Thermocouple	A1S68TD	8 channels, thermocouple (K, E, J, T, B, R, S), conversion speed: 400 ms/8 channels, 20-point terminal block
Temperature control		A1S64TCTRT	Standard control: 4 channels, heating-cooling control: 2 channels; thermocouple (K, J, T, B, S, E, R, N, U, L, PLII, W5Re/W26Re), platinum RTD (Pt100, JPt100); sampling cycle: 0.5 s/4 channels (standard control), 0.5 s/2 channels, (heating-cooling control); 20-point terminal block
		A1S64TCTRTBW	Standard control: 4 channels, heating-cooling control: 2 channels; thermocouple (K, J, T, B, S, E, R, N, U, L, PLII, W5Re/W26Re), platinum RTD (Pt100, JPt100); sampling cycle: 0.5 s/4 channels (standard control), 0.5 s/2 channels, (heating-cooling control); with heater disconneciton detection; 20-point terminal block

AnS

Pulse I/O and positioning module

Product		Type	Outline
High speed counter		A1SD61	1 channel; 50/10 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; comparison output: transistor (open collector), 12/24 V DC, 0.1 A/point, 0.8 A/common; 20-point terminal block
		A1SD62	2 channels; 100/10 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; coincidence output: transistor (sink), 12/24 V DC, 0.5 A/point, 2 A/common; 20-point terminal block
		A1SD62E	2 channels; 100/10 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; conincidence output: transistor (source), 12/24 V DC, 0.1 A/point, 0.4 A/common; 20-point terminal block
		A1SD62D	2 channels; 200/10 kpps; count input signal: RS-422-A (differential line driver); external input: 5/12/24 V DC, coincidence output: transistor (sink), 12/24 V DC, 0.5 A/point, 2 A/common; 20-point terminal block
		A1SD62D-S1	2 channels; 200/10 kpps; count input signal: RS-422-A (differential line driver); external input: RS-422-A (differential line driver); coincidence output: transistor (sink), 12/24 V DC, 0.5 A/point, 2 A/common; 20-point terminal block
Positioning		A1SD70	1 axis, control unit: pulse, no. of positioning data: 1 piece/axis, 15-pin connector/9-pin connector, analog voltage output (-10 to 10 V DC)
Positioning	Open collector output/ Differential output	A1SD75P1-S3	1 axis; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; max. output pulse: 400 kpps (differential driver), 200 kpps (open collector); 36-pin connector
		A1SD75P2-S3	2 axes; 2-axis linear interpolation/ 2-axis circular interpolation; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; max. output pulse: 400 kpps (differential driver), 200 kpps (open collector); 36-pin connector
		A1SD75P3-S3	3 axes; 2-axis linear interpolation/ 2-axis circular interpolation; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; max. output pulse: 400 kpps (differential driver), 200 kpps (open collector); 36-pin connector
	SSCNET connection	A1SD75M1	1 axis; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; 36-pin connector; SSCNET connection
		A1SD75M2	2 axes; 2-axis linear interpolation/ 2-axis circular interpolation; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis; 36-pin connector; SSCNET connection
		A1SD75M3	3 axes; 2-axis linear interpolation/ 2-axis circular interpolation; control unit: pulse, mm, inch, degree; no. of positioning data: 600 pieces/axis 36-pin connector; SSCNET connection
	Cable	AD75C20SC	Cable for connecting AD75P□/A1SD75P□ positioning module and MR-C□A, 2 m
		AD75C20SH	Cable for connecting AD75P□/A1SD75P□ positioning module and MR-H□A, 2 m
		AD75C20SJ	Cable for connecting AD75P□/A1SD75P□ positioning module and MR-J□A, 2 m
		AD75C20SJ2	Cable for connecting AD75P□/A1SD75P□ positioning module and MR-J2□A, 2 m
		AD75C20SNH	Cable for connecting AJ65BT-D75P2-S3 positioning module and MR-H□A, 2 m
		AD75C20SNJ2	Cable for connecting AJ65BT-D75P2-S3 positioning module and MR-J2/J2S, 2 m
		A1SD75-C01HA	Conversion cable for connecting A1SD75P□/M□ and peripheral devices
	Bracket	AD75CK	Cable clamp bracket for AD75, GOT
	Teaching unit	AD75TU	Handy type; positioning data writing, reading, testing, monitoring, etc; positioning data back-up (cassette I/F function)
		AD71TU	Handy type; positioning data writing, reading, testing, monitoring, etc.
Position detection		A1S62LS	No. of position detection axes: 1, resolution: 4096 × 32 rotations to 409.6 × 320 rotations, no. of output channels: 16

Information module

Product		Type	Outline
Ethernet		A1SJ71E71N3-T	10BASE-T
		A1SJ71E71N-B2	10BASE2
		A1SJ71E71N-B5	10BASE5
Intelligent communication		A1SD51S	BASIC program execution module, RS-232: 2 channels, RS-422/485: 1 channel
Computer link		A1SJ71UC24-R2	RS-232: 1 channel, transmission speed: 0.3 to 19.2 kbps, computer link function
		A1SJ71UC24-R4	RS-422/485: 1 channel, transmission speed: 0.3 to 19.2 kbps, computer link function, multidrop link function
		A1SJ71UC24-PRF	RS-232: 1 channel, transmission speed: 0.3 to 19.2 kbps, computer link function, printer function
Intelligent communication		SW□IVD-AD51HP	Software package for QD51H, AD51H-S3, A1SD51S
Memory card interface		A1SD59J-S2	Memory card interface (A1SD59J-MIF external attachment)
		A1SD59J-MIF	A1SD59J-S2 dedicated memory card module
Memory card interface	Cable	AC20MIF-L	Cable for connecting A1SD59J-S2 and A1SD59J-MIF, 2 m
PLC fault detection		A1SS91	PLC fault detection module, RUN output: 1 point, Error output: 1 point, General-purpose output: 3 points

AnS

Control network module

Product		Type	Outline
CC-Link		A1SJ61BT11	Master/local station, for AnSCPU
AS-i		A1SJ71AS92	AS-i system master module
MELSEC NET/10	SI/QSI optical cable	A1SJ72QLP25	SI/QSI/H-PCF/broadband H-PCF optical cable, double loop, remote I/O network (remote I/O station)
	Coaxial cable	A1SJ72QLR25	3C-2V/5C-2V coaxial cable, double loop, remote I/O network (remote I/O station)
		A1SJ72QBR15	3C-2V/5C-2V coaxial cable, single bus, remote I/O network (remote I/O station)
	SI/QSI optical cable	A1SJ71LP21	SI/QSI/H-PCF/broadband H-PCF optical cable, double loop, PLC-to-PLC network (control/normal station)/remote I/O network (remote master station)
	Coaxial cable	A1SJ71LR21	3C-2V/5C-2V coaxial cable, double loop, PLC-to-PLC network (control/normal station)/remote I/O network (remote master station)
		A1SJ71BR11	3C-2V/5C-2V coaxial cable, single bus, PLC-to-PLC network (control/normal station)/remote I/O network (remote master station)
MELSECNET(II)		A1SJ71AP21	SI-200/250 optical cable, double loop, MELSECNET(II) master/local station
		A1SJ71AR21	3C-2V/5C-2V coaxial cable, double, loop MELSECNET(II) master/local station
MELSEC NET(II)	Optical bypass switch	A6BSW-P-S3	Main station side (IN/OUT): SI optical cable, opposite station side (IN/OUT): SI optical cable, for optical data link faulty station bypass, station to station extension
		A6BSW-P-S4	Main station side (IN/OUT): SI optical cable, opposite station side IN: GI optical cable, opposite station side OUT: SI optical cable, for optical data link faulty station bypass, station to station extension, cable conversion
		A6BSW-P-S5	Main station side (IN/OUT): SI optical cable, opposite station side (IN/OUT): GI optical cable, for optical data link faulty station bypass, station to station extension, cable conversion
		A6BSW-P-S6	Main station side (IN/OUT): GI optical cable, opposite station side (IN/OUT): GI optical cable, for optical data link faulty station bypass, station to station extension
		A6BSW-P-S7	Main station side (IN/OUT): GI optical cable, opposite station side (IN/OUT): SI optical cable, for optical data link faulty station bypass, station to station extension, cable conversion
	Coxial tap	A6BSW-R	Coaxial data link faulty station bypass, slave station extendable, master station redundancy operation switching
MELSECNET/B		A1SJ71AT21B	Twisted pair cable, single bus, MELSECNET/B (master/local station)
		A1SJ72T25B	Twisted pair cable, single bus, MELSECNET/B (remote I/O station)
MELSECNET/MINI-S3		A1SJ71PT32-S3*[1]	Optical/twisted pair cable master module
MELSECNET/MINI-S3 Transmission converter		AJ35PTC-CNV*[1]	Twisted pair cable/plastic fiber cable converter (bidirectional conversion), for MELSECNET/MINI, A2C
MELSEC-I/O Link		A1SJ51T64	Twisted pair/cab-tire cable, single bus, MELSEC-I/O Link (master module)
B/NET		A1SJ71B62-S3	Transmission signal device B/NET interface module for power distribution controller

Peripheral devices

ROM writer module		A6WU	P-ROM writer device mounted on machine CPU
ROM writer module	Cable	AC03WU	Cable for connecting A6WU and A6PHP/A6HGP, 0.3 m
	EPROM write adapter	A6WA-28P	Write adapter for EPROM 28-pin
Programming module	Cable	AC300R4	Cable for connecting CPU and A7HGP/A6GPP, 30 m
Intelligent GPP	Cable	AC30N2A	Cable for connecting peripheral devices and A/QnA Series CPU
Programming module		A7PU	Program input device connected to CPU, for ACPU *AnA and AnU have a device range equivalent to A3H only.
		A7PUS	Program input device connected to CPU, for ACPU *AnSCPU can be mounted with screws only.
		A8PUE	Program input device connected to CPU, for ACPU, English display
		A8PUJ	Program input device connected to CPU, for ACPU, exclusively for handheld connection
		A8UPU	Program input device connected to CPU, for ACPU
Programming module	Cable	AC20R4-A8PU	Cable for connecting CPU and A8UPU/A8PUJ *A8PUJ provided
		AC20R4-EX	GPP cable for panel front relay, 2 m
		AC30R4	Cable for connecting CPU and A7PU/A7HGP/A6GPP, 3 m *A7HGP-SET/A6GPP-SET provided
		AC30R4-PUS	Cable for connecting CPU and A8UPU/A7PUS
	Soft case	A8PU-BG	Soft case for A8PU, A8UPU
Modem interface module		A6TEL	Interface module to connect peripheral devices to the telephone line
		Q6TEL	Interface module to connect peripheral devices to the telephone line
External display		A6DU-B	LCD: 16 characters x 2 rows, for data access (CPU operation status, device monitoring/changes)

*1   Orders will be accepted until the end of August, 2008. The production will be discontinued at the end of September, 2008. Please refer to the Technical Bulletin No. T99-0070 for details.

A0J2H

Orders will be accepted until the end of August, 2008. The production will be discontinued at the end of September, 2008.
Please refer to the Technical Bulletin No. T99-0069 for details.

CPU, base, power supply

CPU		A0J2HCPU	No. of I/O points: 480 points, no. of I/O device points: 480 points, program capacity: 8 k steps, basic instruction processing speed (LD instruction):1.25 μs, RAM memory capacity: 32 KB, built-in power supply
		A0J2HCPUP21	No. of I/O points: 480 points, no. of I/O device points: 480 points, program capacity: 8 k steps, basic instruction processing speed (LD instruction):1.25 μs, RAM memory capacity: 32 KB, built-in power supply, with optical data link function
		A0J2HCPUR21	No. of I/O points: 480 points, no. of I/O device points: 480 points, program capacity: 8 k steps, basic instruction processing speed (LD instruction):1.25 μs, RAM memory capacity: 32 KB, built-in power supply, with coaxial data link function
		A0J2HCPU-DC24V	No. of I/O points: 480 points, no. of I/O device points: 480 points, program capacity: 8k steps, basic instruction processing speed (LD instruction):1.25 μs, RAM memory capacity: 32 KB, built-in power supply (for 24 V DC)
Base	Connection cables	A0J2-C01	Cable for module-to-module mounting, 80 mm, supplied for I/O modules
		A0J2-C03	Cable for side-to-side installation, 300 mm
		A0J2-C03F	Cable for A0J2, 56-point I/O module (double mounting)
		A0J2-C06	Cable for top-to-bottom installation, 550 mm
		A0J2-C10	Extension cable, 1,000 mm
		A0J2-C20	Extension cable, 2,000 mm
		A0J2-C04B	Connection cable for A65B, A68B, A55B, A58B; 400 mm
		A0J2-C10B	Connection cable for A65B, A68B, A55B, A58B; 1,000 mm
Power supply		A0J2PW	Input voltage range: 100 to 240 V AC / 200 to 240 V AC, output voltage: 5/2 V DC, output current: 2.3/1.5 A
Memory IC	RAM/ROM	4KROM	ROM capacity: 8 KB (max. 3 k steps)
		8KROM	ROM capacity: 16 KB (max. 6 k steps)
		16KROM	ROM capacity: 32 KB (max. 8 k steps)

I/O module

Input	AC	A0J2-E32A	32 points, 100 to 120 V AC,10 mA, response time: 35 ms, 16 points/common, 36-point terminal block
	DC (Positive common)	A0J2-E32D	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common, 36-point terminal block
Output	Relay	A0J2-E24R	24 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common, 36-point terminal block
	Triac	A0J2-E24S	24 points; 100/240 V AC; leakage at OFF: 1.5 mA (120 V AC), 3.0 mA (240 V AC); response time: 0.5 Hz + 1 ms; 36-point terminal block; with fuse and surge suppressor
	Transistor (Sink)	A0J2-E24T	24 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, 36-point terminal block, with surge suppressor
I/O	DC/relay	A0J2-E28DR	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 12 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common, 3 points/common, independent contact, 36-point terminal block
		A0J2-E56DR	Input: 32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 24 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common 36-point terminal block
	DC/transistor	A0J2-E28DT	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 12 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, 4 points/common, with surge suppressor, 36-point terminal block
		A0J2-E56DT	Input: 32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common, Output: 24 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms 8 points/common, with surge suppressor, 36-point terminal block
	AC/relay	A0J2-E28AR	Input: 16 points, 100 to 120 V AC, 10 mA, response time: 35 ms, 16 points/common Output: 12 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common, 3 points/common, independent contact, 36-point terminal block
		A0J2-E56AR	Input: 32 points, 100 to 120 V AC, 10 mA, response time: 35 ms, 16 points/common, Output: 24 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common 36-point terminal block
	AC/Triac	A0J2-E28AS	Input: 16 points, 100 to 240 V AC, 10 mA, response time: 35 ms, 16 points/common Output: 12 points, 100 to 120 V AC, leakage at OFF: 3 mA, response time: 0.5 Hz+1ms, 8 points/common, 4 points/common, with fuse and surge suppressor, 36-point terminal block
		A0J2-E56AS	Input: 32 points, 100 to 120 V AC, 10 mA, response time: 35 ms Output: 24 points, 100 to 240 V AC, leakage at OFF: 3 mA, response time: 0.5 Hz+1 ms, 8 points/common, with fuse and surge suppressor, 36-point terminal block
	DC/ Triac	A0J2-E28DS	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 12 points, 100 to 240 V AC, leakage at OFF: 3 mA, response time: 0.5 Hz+1 ms, 8 points/common, 4 points/common, with fuse and surge suppressor, 36-point terminal block
		A0J2-E56DS	Input: 32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common Output: 24 points, 100 to 240 V AC, leakage at OFF: 3 mA, response time: 0.5 Hz+1 ms, with fuse and surge suppressor, 36-point terminal block
Simulation switch		A0J2-SW16	16-point simulation switch for A0J2
		A0J2-SW32	32-point simulation switch for A0J2
2-level stacking bracket		A0J2-2F	For 56-point module double mounting

A0J2H

Orders will be accepted until the end of August, 2008. The production will be discontinued at the end of September, 2008.
Please refer to the Technical Bulletin No. T99-0069 for details.

Analog I/O module

Product		Type	Outline
Analog input	Voltage/current input	A0J2-68AD	8 channels; input: -10 to 10 V DC, 4 to 20 mA; output (resolution): -2000 to 2000; conversion speed: 2.5 ms/channel; 36-point terminal block
Analog output	Voltage/current output	A0J2-62DA	2 channels; input (resolution): -1000 to 1000, -2000 to 2000; output: -10 to 10 V DC, 4 to 20 mA, conversion speed: 16 ms/2 channels, 36-point terminal block

Pulse I/O and positioning module

High speed counter	A0J2-D61S1	2 channels; 10/7 kpps; count input signal: 5/12/24 V DC, 2 to 5 mA; external input: 5/12/24 V DC; external output: transistor (open collector), 12/24 V DC, 0.5 A; 36-point terminal block
Positioning	A0J2D71	2 axes; 2-axis linear interpolation; control unit: mm, inch, degree, pulse; no. of positioning data: 400 pieces/axis, 20-pin connector; pulse train input

Information module

PLC fault detection	A0J2-S91	PLC fault detection module, RUN output: 1 point, Error output: 1 point, general-purpose output: 3 points
Comupter link/ multidrop link	A0J2-C214-S1	RS-232C: 1 channel, RS-422: 1 channel, transmission speed: 0.3 to 19.2 kbps, multidrop function (master/local station)
A0J2 multidrop link	A0J2C25	RS-422: 1 channel, transmission speed: 19.2 to 38.4 kbps Links to AJ71C22-S1 and A0J2-C214-S1, connects A0J2 I/O modules

Control network module

MELSECNET	A0J2P25	SI-200/250 optical cable, double loop, remote station
	A0J2R25	3C-2V/5C-2V coaxial cable, double loop, remote station

A2C

Orders will be accepted until the end of August, 2008. The production will be discontinued at the end of September, 2008.
Please refer to the Technical Bulletin No. T99-0070 for details.

I/O module

Product		Type	Outline
Input	AC	AX11C	32 points, 100 to 120 V AC, 6 mA, response time: 30 ms, 16 points/common, 50-point terminal block
		AX21C	32 points, 200 to 240 V AC, 5 mA, response time: 55 ms, 16 points/common, 50-point terminal block
	DC (Positive common)	AX41C	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common, 50-point terminal block
	DC (Positive/negative common)	AX81C	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common, 50-point terminal block
	AC/DC	AX31C	32 points, 12 V DC/24 V DC/12 V AC/24 V AC, 4 mA (12 V DC/12 V AC), 8.5 mA (24 V DC/24 V AC) response time: 30 ms (12/24 V DC)/35 ms (12/24 V AC), 16 points/common, 50-point terminal block
Output	Relay	AY13C	32 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, leakage at OFF: 0 mA, response time: 12 ms, 8 points/common, 50-point terminal block
		AY15CEU	24 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, leakage at OFF: 0 mA, response time: 12 ms, 8 points/common, 4 points/common, 50-point terminal block, CE compliant
	Triac	AY23C	32 points, 100/240 V AC, leakage at OFF: 1.5 mA (120 V AC), 3 mA (240 V AC), response time: 0.5 Hz + 1 ms, 8 points/common, 50-point terminal block, with surge suppressor
	Transistor (Sink)	AY51C	32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, sink type, 50-point terminal block, with surge suppressor
	Transistor (Source)	AY61CE	32 points, 5/12/24 V DC, leakage at OFF: 0.1 mA, response time: 10 ms, 8 points/common, source type, 50-point terminal block, with surge suppressor
		AY81C	32 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, source type, 50-point terminal block, with surge suppressor
I/O	DC/transistor	AX40Y50C	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 16 points/common, sink type, with surge suppressor, 50-point terminal block
		AX80Y80C	Input: 16 points, 12/24 V DC 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common Output: 16 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 16 points/common, source type, with surge suppressor, 50-point terminal block
	AC/relay	AX10Y10C	Input: 16 points, 100 to 120 V AC, 6 mA, response time: 30 ms, 16 points/common Output 16 points 24 V DC/240 V AC, 2 A/point, 4 A/common, response time: 12 ms, 8 points/common, 50-point terminal block
	AC/triac	AX10Y22C	Input: 16 points, 100 to 120 V AC, 6 mA, response time: 30 ms, 16 points/common Output: 16 points, 100 to 240 V AC, leakage at OFF: 1.5 mA (120 V AC), 3.0 mA (240 V AC), response time: 0.5 Hz+1 ms, 8 points/common, with surge suppressor, 50-point terminal block
	DC/relay	AX40Y10C	Input: 16 points, 12/24 V AC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 16 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, response time: 12 ms, 8 points/common, 50-point terminal block
		AX80Y10C	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common Output: 16 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, response time: 12 ms, 8 points/common, 50-point terminal block
		AX80Y14CEU	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common Output: 12 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common, 4 points/common, 50-point terminal block
Cable		A2C-C005	Connection cable for A2C I/O modules, 50 mm *10 pcs/pkg
		A2C-C007	Connection cable for A2C I/O modules, 70 mm *10 pcs/pkg

Analog I/O module

Analog input	Voltage/ current input	A68ADC	8 channels; input: -10 to 10 V DC, 4 to 20 mA DC; output (resolution): -1000 to 1000, -2000 to 2000; conversion speed: 2.5 ms/channel; 47-point terminal block
Analog output	Voltage output	A64DAVC	4 channels; input (resolution): 0 to 4000, 0 to 8000, 0 to 12000; output: 0 to 20 mA DC; conversion speed: 25 ms/4 channels; 47-point terminal block
	Current output	A64DAIC	4 channels; input (resolution): -4000 to 4000, -8000 to 8000, -12000 to 12000; output: -10 to 10 V DC; conversion speed: 25 ms/4 channels; 47-point terminal block
Temperature input	Platinum RTD	A64RD3C	4 channels, 3-wire type platinum RTD (Pt100 [JIS C1604-1989, DIN43760-1980], JPt100 [JIS C1604-1981]) conversion speed: 40 ms/channel, 47-point terminal block
		A64RD4C	4 channels, 4-wire type platinum RTD (Pt100 [JIS C1604-1989, DIN43760-1980], JPt100 [JIS C1604-1981]) conversion speed: 40 ms/channel, 47-point terminal block

Pulse I/O and positioning module

High speed counter	AD61C	2 channels; 50 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; coincidence output: transistor (open collector) output, 12/24 V DC, 0.3 A; 47-point terminal block
	AD62C	1 channel; 50/10 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; comparison output: transistor (open collector) output, 12/24 V DC, 0.1 A/point, 0.8 A/common; 47-point terminal block

MELSECNET/MINI Remote I/O

Orders will be accepted until the end of August, 2008. The production will be discontinued at the end of September, 2008.
Please refer to the Technical Bulletin No. T99-0070 for details.

I/O module

Product		Type	Outline
Input	AC	AX11C	32 points, 100 to 120 V AC, 6 mA, response time: 30 ms, 16 points/common, 50-point terminal block
		AX21C	32 points, 200 to 240 V AC, 5 mA, response time: 55 ms, 16 points/common, 50-point terminal block
		AJ35TB1-16A	16 points, 100 to 120 V AC, 6 mA, response time: 30 ms, 16 points/common, 34-point terminal block
	DC (Positive common)	AX41C	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common, 50-point terminal block
		AJ35PTF-32D	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common, 36-point terminal block
		AJ35TB3-8D	8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/2 commons, positive common, 26-point terminal block
	DC (Positive/negative common)	AX81C	32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common, 50-point terminal block
		AJ35TB2-16D	16 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive/negative common, 34-point terminal block
		AJ35TB1-16D	16 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive/negative common, 26-point terminal block
		AJ35TC1-32D	32 points, 24 V DC, 5 mA, response time: 10 ms, 32 points/common, positive/negative common, 40-pin connector
	AC/DC	AX31C	32 points, 12 V DC/24 V DC/12 V AC/24 V AC, 4 mA (12 V DC/12 V AC), 8.5 mA (24 V DC/24 V AC), response time: 30 ms (12/24 V DC)/35 ms (12/24 V AC), 16 points/common, 50-point terminal block
Output	Relay	AY13C	32 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, leakage at OFF: 0 mA, response time: 12 ms, 8 points/common, 50-point terminal block
		AY15CEU	24 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, leakage at OFF: 0 mA, response time: 12 ms, 8 points/common, 4 points/common, 50-point terminal block, CE compliant
		AJ35TB1A-8R	8 points, 24 V DC, 2 A/point, response time: 12 ms, independent common, 26-point terminal block
		AJ35TB1-16R	16 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common, 34-point terminal block
		AJ35TB2-8R	8 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common, 26-point terminal block
	Triac	AY23C	32 points, 100/240 V AC, leakage at OFF: 1.5 mA (120 V AC), 3 mA (240 V AC), response time: 0.5 Hz + 1 ms, 8 points/common, 50-point terminal block, with surge suppressor
		AJ35PTF-24S	24 points; 100 to 240 V AC; leakage at OFF: 1.5 mA (120 V AC), 3 mA (240 V AC); response time: 0.5 Hz + 1 ms; 8 points/common; 36-point terminal block; with fuse and surge suppressor
	Transistor (Source)	AY61CE	32 points, 5/12/24 V DC, leakage at OFF: 0.1 mA, response time: 10 ms, 8 points/common, source type, 50-point terminal block, with surge suppressor
		AY81C	32 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, source type, 50-point terminal block, with surge suppressor
	Transistor (Sink)	AY51C	32 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, sink type, 50-point terminal block, with surge suppressor
		AJ35TB1-16T	16 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 16 points/common, sink type, 26-point terminal block, with surge suppressor
		AJ35TB1A-8T	8 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, independent common, sink type, 26-point terminal block, with surge suppressor
		AJ35TB2-16T	16 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 16 points/common, (2-wire type) sink type, 34-point terminal block, with surge suppressor
		AJ35TB2-8T	8 points, 5/12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type, 26-point terminal block, with surge suppressor
		AJ35TC1-32T	32 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 32 points/common, sink type, 40-pin connector, with surge suppressor
I/O	DC/transistor	AX40Y50C	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 16 points/common, sink type, with surge suppressor, 50-point terminal block
		AX80Y80C	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common, Output: 16 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 16 points/common, source type, with surge suppressor, 50-point terminal block
		AJ35TB1-16DT	Input: 8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive/negative common Output: 8 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type with surge suppressor, 34-point terminal block
		AJ35TC1-32DT	Input: 16 points, 24 V DC, 5 mA, response time: 10 ms, 16 points/common, positive/negative common Output: 16 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 16 points/common, with surge suppressor, 40-pin connector
		AJ35PTF-56DT	Input: 32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 24 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type with surge suppressor, 36-point terminal block
	DC/relay	AJ35TB1-16DR	Input: 8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive/negative common Output: 8 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common 34-point terminal block
		AJ35PTF-56DR	Input: 32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 24 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common 36-point terminal block
		AX40Y10C	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common Output: 16 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, response time: 12 ms, 8 points/common 50-point terminal block
		AX80Y10C	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive/negative common Output: 16 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, response time: 12 ms, 8 points/common 50-point terminal block
		AX80Y14CEU	Input: 16 points, 12/24 V DC, 3/7 mA, Response time: 10 ms, 16 points/common, positive/negative common Output: 12 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common, 4 points/common 50-point terminal block
	AC/relay	AJ35TB1-16AR	Input: 8 points, 100 to 120 V AC, 6 mA, response time: 30 ms, 8 points/common Output: 8 points, 24 V DC/240 V AC, 2 A/point 5 A/common, pesponse time: 12 ms, 8 points/common 34-point terminal block
		AJ35PTF-56AR	Input: 32 points, 100 to 120 V AC, 10 mA, response time: 25 ms, 16 points/common Output: 24 points, 24 V DC/240 V AC, 2 A/point, 5 A/common, response time: 12 ms, 8 points/common 36-point terminal block
		AX10Y10C	Input: 16 points, 100 to 120 V AC, 6 mA, response time: 30 ms, 16 points/common Output: 16 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, response time: 12 ms, 8 points/common 50-point terminal block

MELSECNET/MINI Remote

Orders will be accepted until the end of August, 2008. The production will be discontinued at the end of September, 2008.
Please refer to the Technical Bulletin No. T99-0070 for details.

I/O module

Product		Type	Outline
I/O	DC/triac	AJ35PTF-28DS	Input: 16 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 12 points, 100 to 240 V AC, leakage at OFF: 3 mA, response time: 0.5 Hz + 1 ms, 8 points/common, 4 points/common, with fuse and surge suppressor, 36-point terminal block
		AJ35PTF-56DS	Input: 32 points, 12/24 V DC, 3/7 mA, response time: 10 ms, 16 points/common, positive common Output: 24 points, 100 to 240 V AC, leakage at OFF: 3 mA, response time: 0.5 Hz + 1 ms, 8 points/common, with fuse and surge suppressor, 36-point terminal block
	AC/triac	AJ35PTF-56AS	Input: 32 points, 100 to 120 V AC, response time: 35 ms,16 points/common Output: 24 points, 100 to 240 V AC, leakage at OFF: 3 mA, response time: 0.5 Hz + 1 ms, 8 points/common, with fuse and surge suppressor, 36-point terminal block
		AX10Y22C	Input: 16 points, 100 to 120 V AC, 6 mA, response time: 30 ms,16 points/common Output: 16 points, 100 to 240 V AC, leakage at OFF: 1.5 mA (120 V AC), 3 mA (240 V AC), response time: 0.5 Hz + 1 ms, 8 points/common, with surge suppressor, 50-point terminal block

Analog I/O module

Analog input	Voltage/ current input	A68ADC	8 channels; input: -10 to 10 V DC, 4 to 20 mA DC; output (resolution): -1000 to 1000, -2000 to 2000; conversion speed: 2.5 ms/channel; 47-point terminal block
Analog output	Voltage output	A64DAVC	4 channels; input (resolution): 0 to 4000, 0 to 8000, 0 to 12000; output: 0 to 20 mA DC; conversion speed: 25 ms/4 channels; 47-point terminal block
	Current output	A64DAIC	4 channels; input (resolution): -4000 to 4000, -8000 to 8000, -12000 to 12000; output: -10 to 10 V DC; conversion speed: 25 ms/4 channels; 47-point terminal block
Temperature input	Platinum RTD	A64RD3C	4 channels, 3-wire type platinum RTD (Pt100 [JIS C1604-1989, DIN43760-1980], JPt100 [JIS C1604-1981]) conversion speed: 40 ms/channel, 47-point terminal block
		A64RD4C	4 channels, 4-wire type platinum RTD (Pt100 [JIS C1604-1989, DIN43760-1980], JPt100 [JIS C1604-1981]) conversion speed: 40 ms/channel, 47-point terminal block

Pulse I/O and positioning module

High speed counter	AD61C	2 channels; 50 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; coincidence output: transistor (open collector) output, 12/24 V DC, 0.3 A; 47-point terminal block
	AD62C	1 channel; 50/10 kpps; count input signal: 5/12/24 V DC; external input: 5/12/24 V DC; comparison output: transistor (open collector) output, 12/24 V DC, 0.1 A/point, 0.8 A/common; 47-point terminal block

Information module

Serial communication		AJ35PTF-R2	RS-232: 1 channel, transmission speed: 300 to 19200 bps
Operation box		AJ35PT-OPB-M1-S3	Mounted type
		AJ35T-OPB-P1-S3	Portable type
Operation box	Cable	AC30MINI	For connection between joint box and AJ35T-OPB-P1-S3
	Joint box	AJ35T-JB-S3	Relay type

MELSEC-I/O Link Remote I/O

Production by order will begin in October, 2007. Please refer to the Technical Bulletin No. T99-0051 for details.

I/O module

Input	DC (Positive/negative common)		AJ55TB3-4D	4 points, 24 V DC, 7 mA, response time: 10 ms, 4 points/common, positive/negative common, 16-point terminal block
			AJ55TB3-8D	8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive/negative common, 24-point terminal block
			AJ55TB3-16D	16 points, 24 V DC, 7 mA, response time: 10 ms, 16 points/common, positive/negative common, 40-point terminal block
Output	Relay		AJ55TB2-4R	4 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 4 points/common, 16-point terminal block
			AJ55TB2-8R	8 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 8 points/common, 24-point terminal block
			AJ55TB2-16R	16 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 4 points/common, 40-point terminal block
	Transistor (Sink)		AJ55TB2-4T	4 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 4 points/common, sink type, 16-point terminal block, with surge suppressor
			AJ55TB2-8T	8 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common, sink type, 24-point terminal block, with surge suppressor
			AJ55TB2-16T	16 points, 12/24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 16 points/common, sink type, 40-point terminal block, with surge suppressor
I/O	DC/relay		AJ55TB32-4DR	Input: 2 points, 24 V DC, 7 mA, response time: 10 ms, 2 points/common, positive/negative common Output: 2 points, 24 V DC/240 V AC, 2 A/point, 4 A/common, response time: 12 ms, 2 points/common 16-point terminal block
			AJ55TB32-8DR	Input: 4 points, 24 V DC, 7 mA, response time: 10 ms, 4 points/common, positive/negative common Output: 4 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 4 points/common 24-point terminal block
			AJ55TB32-16DR	Input: 8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive/negative common Output: 8 points, 24 V DC/240 V AC, 2 A/point, 8 A/common, response time: 12 ms, 8 points/common 40-point terminal block
	DC/transistor		AJ55TB32-4DT	Input: 2 points, 24 V DC, 7 mA, response time: 10 ms, 2 points/common, positive common Output: 2 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 2 points/common sink type, with surge suppressor, 16-point terminal block
			AJ55TB32-8DT	Input: 4 points, 24 V DC, 7 mA, response time: 10 ms, 4 points/common, positive common Output: 4 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 4 points/common sink type, with surge suppressor, 24-point terminal block
			AJ55TB32-16DT	Input: 8 points, 24 V DC, 7 mA, response time: 10 ms, 8 points/common, positive common Output: 8 points, 24 V DC, leakage at OFF: 0.1 mA, response time: 2 ms, 8 points/common sink type, with surge suppressor, 40-point terminal block

Peripheral devices

Product		Type	Outline
Printer		A7NPR-S1	A6CGT connection, drawing creation, MELSAP drawings, hard copy of program ladder diagram/list
Printer	Cable	AC30R2	RS-232C connection cable between A6GPP and printer, 3 m
	Printer ribbon	A7NPR-S1-R	Printer ribbon for A7NPR-S1
		A7PR-R	Printer ribbon for A7PR
		K6PR-K-S1-R	Printer ribbon for K6PR-K-S1
		K6PR-R	Printer ribbon for K6PR
		K7PR-R	Printer ribbon for K7PR
	Printer paper	K6PR-Y	Printer paper for K6PR
		K7PR-Y	Printer paper for K7PR
		K7PR-Y-S1	Printer paper
Floppy disk		SW□-FDC	For cleaning
		SW□-GPPU	640 KB (2DD) CP/M formatted
		SW□-USER	1.4 MB (2HD) MS-DOS formatted

MELSOFT

MELSOFT GX Series

GX Developer	SW□D5C-GPPW-E	MELSEC PLC programming software
	SW□D5C-GPPW-EV	MELSEC PLC programming software (Upgrade)
GX Simulator	SW□D5C-LLT-E	MELSEC PLC simulation software
	SW□D5C-LLT-EV	MELSEC PLC simulation software (Upgrade)
GX Explorer	SW□D5C-EXP-E	Maintenance tool
GX Converter	SW□D5C-CNVW-E	Excel®/text data converter
GX Configurator-AP	SW□D5C-AD75P-E	MELSEC-A dedicated: positioning module setting/monitoring tool for AD75P/M
GX Configurator-CC	SW□D5C-J61P-E	MELSEC-A dedicated: CC-Link module setting/monitoring tool
GX RemoteService-I	SW□D5C-RAS-E	Remote access tool
GX Works	SW□D5C-GPPLLT-E	A set of three products: GX Developer, GX Simulator, GX Explorer

MELSOFT MX Series

MX Component	SW□D5C-ACT-E	ActiveX library for communication
MX Sheet	SW□D5C-SHEET-E	Excel® communication support tool
MX Works	SW□D5C-SHEETSET-E	A set of two products: MX Component, MX Sheet

Software

For IBM Compatible Personal computer	SW□IVD-GPPQ-E	QnA Series dedicated GPP function, SFC (MELSAP3) function, telephone line compatible GPP function
	SW□IVD-CNVQ-E	QnA Series dedicated data conversion software package
	SW□IVD-LNKQ-E	QnA Series dedicated ladder sequence creation package
	SW□IVD-MSDQ-E	QnA Series dedicated macro/library collective package, for standard circuit
	SW□IVD-MSPQ-E	QnA Series dedicated macro/library collective package, for special function modules
	SW□IVD-MINIP-E	Software package for MELSECNET/MINI-S3
	SW□IVD-ROMA-E	Software package for ROM function
	SW□IVD-AD71P	Software package for positioning
	SW□IVD-AD75P-E	Positioning programming, for AD75
	SW□IVD-CADIF-E	User CAD interface function software package
	SW□IVD-GPPA-E	A Series dedicated GPP function, SFC (MELSAP2) function, telephone line compatible GPP function * English manual provided

PC I/F Board

CPU		A80BDE-A2USH-S1	PCI bus, English OS compatible, no. of I/O points: 512, no. of I/O device points: 8,912, program capacity: 30 k steps, basic command processing speed (LD command): 0.09 ms, built-in RAM memory capacity: 448 KB
MELSEC NET/H (10)	SI/QSI optical cable	Q80BD-J71LP21-25	PCI bus, Japanese/English OS compatible, SI/QSI optical cable, double loop, PLC-to-PLC network (control/normal station)
		Q80BD-J71LP21S-25	PCI bus, Japanese/English OS compatible, SI/QSI optical cable, double loop, PLC-to-PLC network (control/normal station), with external power supply function
	GI optical cable	Q80BD-J71LP21G	PCI bus, Japanese/English OS compatible, GI optical cable, double loop, PLC-to-PLC network (control/normal station)
	Coaxial cable	Q80BD-J71BR11	PCI bus, Japanese/English OS compatible, 3C-2V/5C-2V coaxial cable, single bus, PLC-to-PLC network (control/normal station)
CC-Link		Q80BD-J61BT11N	PCI bus, Japanese/English OS compatible, for master/local station, CC-Link Ver.2 compatible
MELSEC NET/10	SI/QSI optical cable	A70BDE-J71QLP23	ISA bus, English OS compatible, SI/QSI optical cable, double loop, PLC-to-PLC network (normal station)
	Coaxial cable	A70BDE-J71QBR13	ISA bus, English OS compatible, 3C-2V/5C-2V coaxial cable, single bus, PLC-to-PLC network (normal station)
		A70BDE-J71QLR23	ISA bus, English OS compatible, 3C-2V/5C-2V coaxial cable, double loop, PLC-to-PLC network (normal station)

A-A1S Module Conversion Adapter
Please refer to the MELSEC-A/QnA (Large Type) Upgrade Catalog L(NA)08077 for details.

Conversion adapters

| For I/O modules	A1ADP-XY	Enables to mount AnS/QnAS (Small Type) Series I/O module on an empty slot of A/QnA (Large type) Series base
For special function modules	A1ADP-SP	Enables to mount AnS/QnAS (Small Type) Series special function module on an empty slot of A/QnA (Large type) Series base

MELSECNET (II), MELSECNET/10 Gateway Set
Please refer to the MELSEC-A/QnA (Large Type) Upgrade Catalog L(NA)08077 for details.

Gateway set[*1]

For MELSECNET (II)- MELSECNET/10 gateway	Q6KT-NETGW-SS	A set of A1S35B, A1S61PN, Q2ASCPU, A1SJ71AP21, A1SJ71QLP21
	Q6KT-NETGW-GS	A set of A1S35B, A1S61PN, Q2ASCPU, A1SJ71AP21-S3, A1SJ71QLP21
	Q6KT-NETGW-RS	A set of A1S35B, A1S61PN, Q2ASCPU, A1SJ71AR21, A1SJ71QLP21
	Q6KT-NETGW-RB	A set of A1S35B, A1S61PN, Q2ASCPU, A1SJ71AR21, A1SJ71QBR11
For MELSECNET/B- MELSECNET/10 gateway	Q6KT-NETGW-TS	A set of A1S35B, A1S61PN, Q2ASCPU, A1SJ71AT21B, A1SJ71QLP21
	Q6KT-NETGW-TB	A set of A1S35B, A1S61PN, Q2ASCPU, A1SJ71AT21B, A1SJ71QBR11

*1 Model name reading method Q6KT-NETGW-□□
(1)(2)
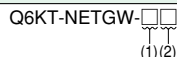
(1) Network type: MELSECNET (II)
S: SI optical cable (Double loop)
G: GI-50/125 optical cable (Double loop)
R: Coaxial cable (Double loop)
T: Twisted pair cable (Bus)

(2) Network type: MELSECNET/10
S: SI optical cable (Double loop)
B: Coaxial cable (Bus)

Mitsubishi Programmable Controllers

Precautions for Choosing the Products

This catalog explains the typical features and functions of the AnS/QnAS Series PLCs and does not provide restrictions and other information on usage and module combinations. When using the products, always read the user's manuals of the products.

Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; machine damage or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

⚠ For safe use

- To use the products given in this catalog properly, always read the "manuals" before starting to use them.
- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi.
- This product has been manufactured under strict quality control. However, when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

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