

Type List

CPU Modules (All-in-One Type)

Power Voltage	Input Type	Output Type	I/O Points	Type No.
100-240V AC 50/60 Hz	24V DC Sink/Source	Relay Output 240V AC/30V DC, 2A	10-I/O Type (6 in / 4 out)	FC5A-C10R2
			16-I/O Type (9 in / 7 out)	FC5A-C16R2
24-I/O Type (14 in / 10 out)			FC5A-C24R2	
24V DC			10-I/O Type (6 in / 4 out)	FC5A-C10R2C
			16-I/O Type (9 in / 7 out)	FC5A-C16R2C
			24-I/O Type (14 in / 10 out)	FC5A-C24R2C

CPU Modules (Slim Type)

Power Voltage	Input Type	Output Type	High-speed Transistor Output	I/O Points	Type No.
24V DC	24V DC Sink/Source	Relay Output 240V AC/30V DC, 2A	Sink Output 0.3A	16 (8 in / 8 out) *	FC5A-D16RK1
			Source Output 0.3A		FC5A-D16RS1
		Transistor Sink Output 0.3A		32 (16 in / 16 out)	FC5A-D32K3
		Transistor Source Output 0.3A			FC5A-D32S3

Note *: Two points are transistor outputs, and six points are relay outputs.

Input Modules

Input Type	Input Points	Terminal	Type No.
24V DC Sink/Source	8 points	Removable Terminal Block	FC4A-N08B1
	16 points		FC4A-N16B1
	16 points	MIL Connector	FC4A-N16B3
	32 points		FC4A-N32B3
120V AC	8 points	Removable Terminal Block	FC4A-N08A11

Output Modules

Output Type	Output Points	Terminal	Type No.
Relay Output 240V AC/30V DC, 2A	8 points	Removable Terminal Block	FC4A-R081
	16 points		FC4A-R161
Transistor Sink Output 0.3A	8 points		FC4A-T08K1
Transistor Source Output 0.3A			FC4A-T08S1
Transistor Sink Output 0.1A	16 points	MIL Connector	FC4A-T16K3
Transistor Source Output 0.1A			FC4A-T16S3
Transistor Sink Output 0.1A	32 points		FC4A-T32K3
Transistor Source Output 0.1A			FC4A-T32S3

Mixed I/O Modules

Input Type	Output Type	I/O Points	Terminal	Type No.
24V DC Sink/Source	Relay Output 240V AC/30V DC, 2A	8 (4 in / 4 out)	Removable Terminal Block	FC4A-M08BR1
		24 (16 in / 8 out)	Non-removable Terminal Block	FC4A-M24BR2

APPENDIX

Analog I/O Modules

Name	I/O Signal	I/O Points	Category	Terminal	Type No.
Analog I/O Module	Voltage (0 to 10V DC) Current (4 to 20mA)	2 inputs	END Refresh Type	Removable Terminal Block	FC4A-L03A1
	Voltage (0 to 10V DC) Current (4 to 20mA)	1 output			FC4A-L03AP1
	Thermocouple (K, J, T) Resistance thermometer (Pt100)	2 inputs			FC4A-J2A1
	Voltage (0 to 10V DC) Current (4 to 20mA)	1 output			FC4A-J4CN1
Analog Input Module	Voltage (0 to 10V DC) Current (4 to 20mA)	2 inputs	Ladder Refresh Type		FC4A-J8C1
	Voltage (0 to 10V DC) Current (4 to 20mA) Thermocouple (K, J, T) Resistance thermometer (Pt100, Pt1000, Ni100, Ni1000)	4 inputs			FC4A-J8AT1
	Voltage (0 to 10V DC) Current (4 to 20mA)	8 inputs			FC4A-K1A1
	Thermistor (PTC, NTC)	8 inputs			FC4A-K2C1
Analog Output Module	Voltage (0 to 10V DC) Current (4 to 20mA)	1 output	END Refresh		
	Voltage (-10 to +10V DC) Current (4 to 20mA)	2 outputs	Ladder Refresh		

Web Server Unit

Name	Terminal	Type No.
Web Server Unit	Screw Terminal	FC4A-SX5ES1E

AS-Interface Master Module

Name	Terminal	Type No.
AS-Interface Master Module	Removable Terminal Block	FC4A-AS62M

Optional Modules, Adapters, and Cartridges

Name	Description	Type No.
Expansion Interface Module	For integrated mounting	FC5A-EXM2
Expansion Interface Master Module	For separate mounting	FC5A-EXM1M
Expansion Interface Slave Module		FC5A-EXM1S
HMI Module	For displaying and changing required operands	FC4A-PH1
HMI Base Module	For mounting HMI module with slim type CPU module	FC4A-HPH1
RS232C Communication Adapter *	Mini DIN connector type for all-in-one 16- and 24-I/O CPU modules	FC4A-PC1
RS485 Communication Adapter *	Mini DIN connector type for all-in-one 16- and 24-I/O CPU modules	FC4A-PC2
	Terminal block type for all-in-one 16- and 24-I/O CPU modules	FC4A-PC3
RS232C Communication Module	Mini DIN connector type for slim type CPU module	FC4A-HPC1
RS485 Communication Module	Mini DIN connector type for slim type CPU module	FC4A-HPC2
	Terminal block type for slim type CPU module	FC4A-HPC3
Memory Cartridge	32KB EEPROM for storing a user program	FC4A-PM32
	64KB EEPROM for storing a user program	FC4A-PM64
Clock Cartridge	Real time calendar/clock function	FC4A-PT1

Note *: RS232C or RS485 communication adapters can also be installed on the HMI base module mounted next to the slim type CPU module.

Accessories

Name	Function	Type No.
RS232C/RS485 Converter	Used for interface between a computer and the MicroSmart CPU modules in the computer link 1:N communication system or through modems	FC2A-MD1
RS232C Cable (4-wire) (1.5m/4.92 ft. long)	Used to connect the RS232C/RS485 converter to a computer, with D-sub 9-pin female connector to connect to computer	HD9Z-C52
DIN Rails (1m/3.28 ft. long)	35-mm-wide aluminum DIN rail to mount MicroSmart modules (package quantity 10)	BAA1000NP10
DIN Rails (1m/3.28 ft. long)	35-mm-wide steel DIN rail to mount MicroSmart modules (package quantity 10)	BAP1000NP10
Mounting Clips	Used on DIN rail to fasten MicroSmart modules (package quantity 10)	BNL6P
Direct Mounting Strips	Used for direct mounting of slim type CPU or I/O modules on a panel (package quantity 5)	FC4A-PSP1P
10-position Terminal Blocks	For I/O modules (package quantity 2)	FC4A-PMT10P
11-position Terminal Blocks	For I/O modules (package quantity 2)	FC4A-PMT11P
13-position Terminal Blocks	For slim type CPU modules FC4A-D20RK1 and FC4A-D20RS1 (package quantity 2)	FC4A-PMT13P
16-position Terminal Blocks	For slim type CPU module FC5A-D16RK1 (package quantity 2)	FC4A-PMTK16P
16-position Terminal Blocks	For slim type CPU module FC5A-D16RS1 (package quantity 2)	FC4A-PMTS16P
20-position Connector Socket	MIL connector for I/O modules (package quantity 2)	FC4A-PMC20P
26-position Connector Socket	MIL connector for slim type CPU modules (package quantity 2)	FC4A-PMC26P
Phoenix Ferrule	Ferrule for connecting 1 or 2 wires to screw terminal	See page 3-19
Phoenix Crimping Tool	Used for crimping ferrules	See page 3-19
Phoenix Screwdriver	Used for tightening screw terminals	See page 3-19
WindLDR	Programming and monitoring software for Windows PC (CD)	FC9Y-LP2CDW
MicroSmart User's Manual	This printed manual	FC9Y-B927
Web Server Unit User's Manual	Printed manual for the web server unit	FC9Y-B919

BX Series I/O Terminals and Applicable Cables

MicroSmart		Cable Type No.	I/O Terminal Type No.	Connector
Module	Type No.			
CPU Module	FC5A-D32K3 FC5A-D32S3	FC9Z-H①②26	BX1D-③26A BX1F-③26A	26-pole MIL connector
Input Module	FC4A-N16B3 FC4A-N32B3	FC9Z-H①②20	BX1D-③20A BX1F-③20A BX7D-BT16A1T (16-pt relay output)	20-pole MIL connector
Output Module	FC4A-T16K3 FC4A-T16S3 FC4A-T32K3 FC4A-T32S3			

Specify required designation codes in place of ①, ②, and ③.

① Cable Length Code	② Cable Shield Code	③ Terminal Screw Style Code
050: 0.5m 100: 1m 200: 2m 300: 3m	A: Shielded cable B: Non-shielded cable	T: Touch-down terminal S: Screw terminal

APPENDIX

Cables

Name	Function	Type No.
Modem Cable 1C (3m/9.84 ft. long)	Used to connect a modem to the MicroSmart RS232C port, with D-sub 25-pin male connector to connect to modem	FC2A-KM1C
Computer Link Cable 4C (3m/9.84 ft. long)	Used to connect a computer to the MicroSmart RS232C port (1:1 computer link), with D-sub 9-pin female connector to connect to computer	FC2A-KC4C
User Communication Cable 1C (2.4m/7.87 ft. long)	Used to connect RS232C equipment to the MicroSmart RS232C port, without a connector to connect to RS232C equipment	FC2A-KP1C
O/I Communication Cable 1C (5m/16.4 ft. long)	RS232C cable used to connect IDEC HG1B/2A/2C operator interface to MicroSmart RS232C port 1 or 2	FC4A-KC1C
O/I Communication Cable 2C (5m/16.4 ft. long)	RS232C cable used to connect IDEC HG2F operator interface to MicroSmart RS232C port 1 or 2	FC4A-KC2C
Analog Voltage Input Cable (1m/3.28 ft. long)	Used to connect an analog voltage source to the analog voltage input connector on the slim type CPU module (package quantity 2)	FC4A-PMAC2P
Web Server Cable (100 mm/3.94 in.)	Used to connect the web server unit to MicroSmart RS232C port 1 or 2	FC4A-KC3C
Expansion Interface Cable (1m/3.28 ft. long)	Used to connect separate mounting type expansion interface master and slave modules	FC5A-KX1C
Shielded CPU Flat Cable (0.5m/1.64 ft. long)	26-wire shielded straight cable for connecting the MicroSmart slim type CPU module to an I/O terminal	FC9Z-H050A26
Shielded CPU Flat Cable (1m/3.28 ft. long)		FC9Z-H100A26
Shielded CPU Flat Cable (2m/6.56 ft. long)		FC9Z-H200A26
Shielded CPU Flat Cable (3m/9.84 ft. long)		FC9Z-H300A26
Non-shielded CPU Flat Cable (0.5m/1.64 ft. long)	26-wire non-shielded straight cable for connecting the MicroSmart slim type CPU module to an I/O terminal	FC9Z-H050B26
Non-shielded CPU Flat Cable (1m/3.28 ft. long)		FC9Z-H100B26
Non-shielded CPU Flat Cable (2m/6.56 ft. long)		FC9Z-H200B26
Non-shielded CPU Flat Cable (3m/9.84 ft. long)		FC9Z-H300B26
Shielded I/O Flat Cable (0.5m/1.64 ft. long)	20-wire shielded straight cable for connecting the MicroSmart I/O module to an I/O terminal	FC9Z-H050A20
Shielded I/O Flat Cable (1m/3.28 ft. long)		FC9Z-H100A20
Shielded I/O Flat Cable (2m/6.56 ft. long)		FC9Z-H200A20
Shielded I/O Flat Cable (3m/9.84 ft. long)		FC9Z-H300A20
Non-shielded I/O Flat Cable (0.5m/1.64 ft. long)	20-wire non-shielded straight cable for connecting the MicroSmart I/O module to an I/O terminal	FC9Z-H050B20
Non-shielded I/O Flat Cable (1m/3.28 ft. long)		FC9Z-H100B20
Non-shielded I/O Flat Cable (2m/6.56 ft. long)		FC9Z-H200B20
Non-shielded I/O Flat Cable (3m/9.84 ft. long)		FC9Z-H300B20