Panasonic MINAS A5

Supported Series: Panasonic MINAS A5 series Servo Drive.

HMI Setting:

Parameters	Recommended	Options	Notes
PLC type	Panasonic MINAS A5		
PLC I/F	RS232	RS232/RS485 2W	
Baud rate	9600	2400~115200	
Data bits	8		
Parity	None		
Stop bits	1		
Axis no.	0 (master station only)	0 ~ 127 (slave)	

* When connecting with more than two devices, it is recommended to set timeout to more than 4 seconds. Set a longer timeout when connecting with more devices to maintain good communication.

Device Address:

Bit/Word	Device type	Format	Range	Memo
B	Command 20	D	0 ~ 7	States (Note 3)
B	Command 27	DD	0 ~ 31	Input Signal (Note 3)
B	Command 28	DD	0 ~ 31	Output Signal (Note 3)
W	Command 01	D	0	CPU Version (Numeric format:16-bit Hex)
W	Command 05	DD	0 ~ 11	Driver Version (ASCII / 12 words)
W	Command 06	DD	0 ~ 11	Motor Version (ASCII / 12 words)
W	Command 21	D	0 ~ 1	command pulse counter (Numeric format: 32-bit Signed)
W	Command 22	D	0 ~ 1	feedback pulse counter (Numeric format: 32-bit Signed)
W	Command 24	D	0	present speed (Numeric format: 16-bit Unsigned)
W	Command 25	D	0	present torque (Numeric format: 16-bit Unsigned)
W	Command 26	D	0 ~ 1	present deviation counter (Numeric format: 32-bit Signed)

Bit/Word	Device type	Format	Range	Memo
W	Command2D_S	D	0 ~ 1	Command 2D Signle turn data (Numeric format: 32-bit Signed)
W	Command2D_M	D	0 ~ 1	Command 2D Multi-turn data (Numeric format: 32-bit Signed)
W	Parameter	HHH	0 ~ 639	Individual Parameter (range: 0x000 ~ 0x639) (Note 2)
W	Command 72	D	0	write parameter to EEPROM (Note 1)
W	Command 90	D	0	present Alarm Data (Numeric format: 16-bit Unsigned)
W	Command 92	DD	1 ~ 14	Batch Alarm (Note 4) (Numeric format: 16-bit Unsigned)
W	Command 93	D	0	clear Alarm History (include EEPROM) (Note 1)
W	Command 94	D	0	Alarm Clear (Note 1)
W	Command 9B	D	0	Absolute Clear (Note 1)

Note:

1. Command 72, Command 93, Command 94, and Command 9B are write only. (These commands are able to use Set Bit Object and execute the write command after triggering Set Bit Object.). Commands other than these four are read only.
2. Parameter read/write: Use device type to define address control from 000~639.
   For example: "address_000" is mapping to "Parameter_000".
   (Please refer to Panasonic MINAS A5 Series User Manual.)
3. Device address type can define MINAS A5 Driver's command list.
   Command 20, Command 27, and Command 28 are Bit type, use "Operating range" to map communication order status.
   For example: "Command 20_3" means "Read state_CCW".
   (Please refer to Panasonic MINAS A5 Series User Manual.)
4. Command 92 are word type, use "Operating range" to map the record of 14 alarms.

Wiring Diagram:

Diagram 1

RS-232 (MINAS A5 Driver X2 Port RS232 Signal)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

The following is the view from the soldering point of a connector.

8	6	4	2
7	5	3	1

HMI		PLC
Link		RS232 8P Connector
Rx	←→	3 TXD
Tx	←→	4 RXD
GND	←→	1 GND

Diagram 2

RS-485 2W (MINAS A5 Driver X2 Port RS485 Signal)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

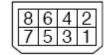**The following is the view from the soldering point of a connector.**

8	6	4	2
7	5	3	1

HMI		PLC
Link		RS485 2W 8P Connector
Data-	←→	5,7 485-
Data+	←→	6,8 485+
GND	←→	1 GND