

### **PLC Connection Guide**

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# AIBUS

UDIAN Automation AI-501, AI-518, AI-519, AI-701, AI-702M, AI-704M, AI-706M, AI-719 http://www.yudian.us

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	AIBUS		
Com port	RS485 2W	RS232	
Baud rate	9600	9600, 19200	
Parity bit	None		
Data Bits	8		
Stop Bits	2		
HMI Station No.	0		
PLC Station No.	1	0-100	

Online Simulator	YES	
Extend address mode	NO	

## **PLC Setting:**

Communication mode	



#### **Device address:**

## AI-518

Bit/Word	Devic	е Туре	Format	Range	Memo
W	0	00H	dd		SV/STEP
W	1	01H	dd	-1999~+9999	HIAL
W	2	02H	dd	-1999~+9999	LoAL
W	3	03H	dd	0~9999	dHAL
W	4	04H	dd	0~9999	dLAL
W	5	05H	dd	0~2000	dF
W	6	06H	dd	0~4	CtrL
W	7	07H	dd	0~9999	M5
W	8	08H	dd	1~9999	Р
W	9	09H	dd	0~2000	t
W	10	0AH	dd	0~125	CtI
W	11	0BH	dd	0~37	Sn (read only)
W	12	0CH	dd	0~3	dIP (read only)
W	13	0DH	dd	-1999~+9999	dIL
W	14	0EH	dd	-1999~+9999	dIH
W	15	0FH	dd	0~9999	ALP
W	16	10H	dd	-1999~+4000	Sc
				0.1E	
W	17	11H	dd	0~48	Op1
W	18	12H	dd	-110~+110%	oPL
W	19	13H	dd	0~110%	oPH
W	20	14H	dd	0~127	CF (read only)
W			dd		Baud rate ( bAud )
	21	15H		0~19.2K	/808Pstatus word:
					run:0 suspend:4 stop:12
					(read only)
W	22	16H	dd	0~100	ADDR
W	23	17H	dd	0~20	dL
W	24	18H	dd	0~127	Run
W	25	19H	dd	0~9999	Loc



AI-701

Bit/Word	Device	е Туре	Format	Range	Memo
W	1	01H	dd	-9990~+30000	HIAL
W	2	02H	dd	-9990~+30000	LoAL
W	3	03H	dd	-9990~+30000	HdAL
W	4	04H	dd	-9990~+30000	LdAL
W	5	05H	dd	0~2000	AHYS
W	11	0BH	dd	0~37	InP (read only)
W	12	0CH	dd	0~3	dPt
W	13	0DH	dd	-9999~+30000	SCL
W	14	0EH	dd	-9999~+30000	SCH
W	15	0FH	dd	0~4444	AOP
W	16	10H	dd	-1999~+4000	Scb
				0.1E	
W	17	11H	dd	0~48	Opt
W			dd		Baud rate ( bAud )
	21	15H		0~19.2K	/808P status word
					run:0 suspend:4 stop:12
					(read only)
W	22	16H	dd	0~80	ADDR
W	23	17H	dd	0~40	FILt
W	25	19H	dd	0~255	Loc

## Wiring diagram:

RS-485:

MT8000 PLC[485]

9P D-SUB

COM1	COM3	
1 RX-	6 Data-	4 COMM A
2 RX+	9 Data+	3 COMM B
5 GND	5 GND	

AI-518/518P

RS485 port



#### **Driver Version:**

Version	Date	Description of Changes
V1.20	Dec/30/2008	

# Allen-Bradley CompactLogix/FlexLogix

Allen-Bradley ControlLogix, CompactLogix, FlexLogix CH0 DF1 <a href="http://www.ab.com">http://www.ab.com</a>

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley		
	CompactLogix/FlexLogix		
Com port	RS232		
Baud rate	19200	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

## **PLC Setting:**

Communication mode	DF1 Full Duplex protocol 19200, None, 8, 1 (default)
	Error Check: BCC, Station Address: 1

f Controller Properties - HMI500	🔏 Controller Properties - HMI500
Date/Time   Advanced   SFC Execution   File   Nonvolatile Memory   Memory   General Serial Port   System Protocol   User Protocol   Mejor Faults   Minor Faults	Date/Time Advanced SFC Execution File Nonvolatile Memory Memory General Serial Port System Protocol User Protocol Major Faults Minor Faults
Mode:       Show Offline Values         Baud Rate:       19200         Data Bits:       8         Parity:       None         Stop Bits:       1         Control Line:       No Handshake	Mode:     System     Show Offline Values       Baud Rate:     19200        Data Bits:     8        Parity:     None        Stop Bits:     1        Control Line:     No Handshake
RTS Send Delay: 0 (x20 ms) RTS Off Delay: 0 (x20 ms) @ @定 取消 雲用(点) 說明	RTS Send Delay: 0 (x20 ms) RTS Off Delay: 0 (x20 ms) 確定 取消 麥用(為) 說明

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
	B_BOOL	fffddd(dd)	File no. ff: 3, 10~255	Bit data file
В			Element no. ddd: 0~255	
			Bit no. (dd): 0~15	
			File no. ff: 7, 10~255	Integer data file bit level (N7,
В	N_BOOL	fffddd(dd)	Element no. ddd: 0~255	10~255)
			Bit no. (dd): 0~15	
W	Bx_INT	fffddd	File no. fff: 3, 10~255	Bit data file word level
vv			Element no. ddd: 0~255	
DW	Tx.PRE	fffddd	File no. fff: 4, 10~255	Timer Preset Value (T4, T10~255)
Dw			Element no. ddd: 0~255	
DW	Tx.ACC	fffddd	File no. fff: 4, 10~255	Timer Accumulator Value (T4,
Dw			Element no. ddd: 0~255	T10~255)
DW	Cx.PRE	fffddd	File no. fff: 5, 10~255	Counter Preset Value (C5, C10~255)
Dw			Element no. ddd: 0~255	
DW	0.000	fffddd	File no. fff: 5, 10~255	Counter Accumulator Value (C5,
Dw	CX.ACC		Element no. ddd: 0~255	C10~255)
F	F8_REAL	ddd	ddd:0~255	Floating point data file (F8)
Б	E. DEAL	fffddd	File no. fff:0~255	Floating point data file (F008,
F	FX_KEAL	IIIddd	Element no. ddd:0~255	F010~F255)
DW	N. INT	ECIII	File no. fff:0~255	Integer data file (N7, 10~255)
Dw	INX_IIN I	FIIddd	Element no. ddd:0~255	

## Wiring diagram:

RS-232: ControlLogix, CompactLogix CPU CH0



PLC Connection Guide

	Ĩ				
2	RX	6 RX	8 RX	 3	TD
5	GND	5 GND	5 GND	5	GND

ControlLogix, CompactLogix CPU CH0 setting:

General Serial Port Protocol: Station Address: NAK Receive Limit: ENQ Transmit Limit: ACK Timeout: Embedded Responses:	DF1 Point to Point       1       3       30       50     (x20 ms)       Enabled	Item       Honvointe Honory + Honor         User Protocol       Major Faults         Image: Second state of the second state
		<b>研会 (</b> 李田/4) ( 詳細

Create the Tag:

The name format must use 4 chars like B003, T004, C005, N007, F008.

Two or three chars are not available. For example B03 or B3.

WEINTEK	PLC Connection Guide
RSLogix 5000 - TEST [1769-L20] - [Program Tags - MainProgram] File Edit View Search Logic Communications Tools Window Help	_D×
	<u> 28</u> QQ
Offline     RUN       No Forces     OK       BAT     I/O       Image: Second seco	イレン put/Output Compare
Create a tag	Sogt: Tag Name  Sogt: Tag Name  South Style  South Style

	(Provide and Andreas and Andre	
<u>N</u> ame:	B003	OK
Description:	A	Cancel
	¥	Help
Tag Type:	<ul> <li></li></ul>	2
Data <u>T</u> ype:	[INT[255]	onfigure
<u>S</u> cope:	TEST (controller)	
Style:	Decimal	



			OK
BD_TIMER			Cancel
ILTER_HIGH_I ILTER_LOW_H	PASS		Help
ILTER_NOTCH LIP_FLOP_D	I		
LIP_FLOP_JK	TEDATOD		
UNCTION_GEI	NERAIOR		
UNCTION_GEI IL_LIMIT NT	NERAIOR	<u>.</u>	
AUNCTION_GEI HL_LIMIT NT Array Dimensio:		<b></b>	

Version	Date	Description of Changes
V1.20	Dec/30/2008	



# **Allen-Bradley DF1**

Allen-Bradley MicroLogix 1000, 1100, 1200, 1400, 1500, SLC 5/03, 5/04, 5/05

http://www.ab.com

*Note*: Allen-Bradley DF1 driver is used CRC checksum.

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	AB DF1		
Com port	RS232		
Baud rate	19200	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

#### **PLC Setting:**

Communication mode	DF1 Full Duplex protocol 19200, None, 8, 1 (default)
	Error Check: CRC

Bit/Word	Device Type	Format	Range	Memo
В	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
В	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
В	S_Bit	ddd(dd)	ddd:0~254 (dd): 0~15	Status (S) bit level
В	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
В	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
В	Bfn	fffddd(dd)	File no. fff: 3, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Bit data file (B3, 10~254)
В	NfnBit	fffddd(dd)	File no. fff: 7, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~254)
W	S	ddd	ddd:0~254	Status (S)
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	TfnSV	fffddd	File no. fff: 4, 10~254 Element no. ddd:0~254	Timer Preset Value
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)
W	TfnPV	fffddd	File no. fff: 4, 10~254 Element no. ddd:0~254	Timer Accumulator Value
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)
W	CfnSV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Preset Value

	WEINTEK PLC Connection Guide								
Bit/Word	Device Type	Format	Range	Memo					
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)					
W	CfnPV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Accumulator Value					
W	N7	ddd	ddd:0~254	Integer data file (N7)					
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)					
W	F8	ddd	ddd:0~254	Floating point data file (F8)					
W	Nfn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Integer data file (N7, 10~254)					

COM1

3 TX

RX

GND

2

5

RS-232: MicroLogix 1000, 1100, 1200, 1400, 1500

MT8000 RS232 9P D-SUB

COM2

4 TX

RX

GND

6

5

MicroLogix RS232 mini-DIN 8pin

RXD

TXD

GND

4

7

8



RS-232: SLC5/03, 04, 05 CH0

MT8000 RS232 9P D-SUB Female AB CPU CH0 RS-232 9P D-SUB Male

C	OM1	С	OM2	C	OM3		
3	ΤХ	4	ΤХ	7	ΤХ	 2	RD
2	RX	6	RX	8	RX	 3	TD
5	GND	5	GND	5	GND	 5	GND

COM3

7 TX

RX

GND

8

5

Version	Date	Description of Changes
V2.10	Apr/17/2009	

# Allen-Bradley DF1 (BCC)

Allen-Bradley MicroLogix 1000, 1100, 1200, 1500, SLC 5/03, 5/04, 5/05 <u>http://www.ab.com</u>

*Note*: Allen-Bradley DF1 BCC is the same as Allen-Bradley DF1. the only different is this driver use BCC checksum.

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	AB DF1		
Com port	RS232		
Baud rate	19200	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

#### **PLC Setting:**

Communication mode	DF1 Full Duplex protocol 19200, None, 8, 1 (default)
	Error Check: CRC

Bit/Word	Device Type	Format	Range	Memo
В	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
В	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
В	S_Bit	ddd(dd)	ddd:0~254 (dd): 0~15	Status (S) bit level
В	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
В	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
В	Bfn	fffddd(dd)	File no. fff: 3, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Bit data file (B3, 10~254)
В	NfnBit	fffddd(dd)	File no. fff: 7, 10~254 Element no. ddd: 0~254 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~254)
W	S	ddd	ddd:0~254	Status (S)
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	TfnSV	fffddd	File no. fff: 4, 10~254 Element no. ddd:0~254	Timer Preset Value
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)

	WEINTEK PLC Connection Guide							
Bit/Word	Device Type	Format	Range	Memo				
W	TfnPV	fffddd	File no. fff: 4, 10~254 Element no. ddd:0~254	Timer Accumulator Value				
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)				
W	CfnSV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Preset Value				
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)				
W	CfnPV	fffddd	File no. fff: 5, 10~254 Element no. ddd:0~254	Counter Accumulator Value				
W	N7	ddd	ddd:0~254	Integer data file (N7)				
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)				
W	F8	ddd	ddd:0~254	Floating point data file (F8)				
W	Nfn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Integer data file (N7, 10~254)				

#### RS-232: MicroLogix 1000, 1100, 1200, 1500

	MT8000 RS 9P D-SU	MicroLog mini-D	gix RS232 IN 8pin	
COM1	COM2	COM3		
3 TX	4 TX	7 TX	 4	RXD
2 RX	6 RX	8 RX	 7	TXD
5 GND	5 GND	5 GND	 8	GND

#### RS-232: SLC5/03, 04, 05 CH0

MT8000 RS232 9P D-SUB Female

AB CPU CH0 RS-232 9P D-SUB Male

C	OM1	С	OM2	C	OM3		
3	ΤХ	4	ΤХ	7	ΤХ	 2	RD
2	RX	6	RX	8	RX	 3	TD
5	GND	5	GND	5	GND	 5	GND

Version	Date	Description of Changes
V2.10	Apr/17/2009	



# **Allen-Bradley DH485**

Allen-Bradley MicroLogix 1000, 1100, 1200, 1500, SLC 5/03, 5/04, 5/05 http://www.ab.com

#### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley DH485		
Com port	RS485 2W	RS232	
Baud rate	19200	9600, 19200	
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
HMI Station NO.	0	2	
PLC Station NO.	1	1-31	

Online Simulator	YES	
Extend address mode	NO	

#### **PLC Setting:**

Communication mode	DH485 protocol 19200 (default)
	Set the Max. Node Address as exactly how many PLCs you
	have.

🖉 99 mg/s 500 - 9.0503 855	
Deelersbeinin	SAM 28 5.50 0 + + +
OFFLINE   No Forces	Channel Contragation
Driver AB_PIC1 Node	General Oven. 1 - System Chaes 0 - System Chaes 0 - User
K SLC NOL RISS     Market     Market     Market     Market     Market     Controller Properties     Controller Properties     Market     M	Driver (DH485) Bread (13200)
Mutgore Nordsr  Nutgore Nordsr  Sys5 6  Sys5 1  CLD 2  Date Files  Count Reference  Co. OutRuft	Protocol Control Token Huist Factor (1 Marc Node Addess: (1



Bit/Word	Device Type	Format	Range	Memo
В	II	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
В	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
В	В3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
В	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
	Bfn	fffddd(dd)	File no. fff: 3, 10~254	Bit data file (B3, 10~254)
В			Element no. ddd: 0~254	
			Bit no. (dd): 0~15	
	NfnBit	fffddd(dd)	File no. fff: 7, 10~254	Integer data file bit level (N7,
В			Element no. ddd: 0~254	10~254)
			Bit no. (dd): 0~15	
В	S_Bit	ddd(dd)	ddd:0~254 (dd): 0~15	Status file
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)
W	TfnSV	fffddd	File no. fff:0~254	Timer Preset Value
vv			Element no. ddd:0~254	
W	TfnPV	fffddd	File no. fff:0~254	Timer Accumulator Value
**			Element no. ddd:0~254	
W	CfnSV	fffddd	File no. fff:0~254	Counter Preset Value
**	CIIISV	Indda	Element no. ddd:0~254	
W	CfnPV	fffddd	File no. fff:0~254	Counter Accumulator Value
		Indud	Element no. ddd:0~254	
W	N7	ddd	ddd:0~254	Integer data file (N7)
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)
W	F8	ddd	ddd:0~254	Floating point data file (F8)
<b>W</b> /	Nfn	fffddd	File no. fff:0~254	Integer data file (N7, 10~254)
vv	11111	indud	Element no. ddd:0~254	
W	S	ddd	ddd:0~254	Status file



#### RS-485: SLC500 Fixed type, SLC5/01,02,03 CH1. MT8000 can't connect to 1747-AIC PERIPHERAL PORT

MT8000 9P D-	) RS485 SUB	AB SLC: RJ8 clip	500 DH485 style ports	
COM1	COM3			1 0
1 RX-	6 Data-	 2	SDB	KJ8 connector
2 RX+	9 Data+	1	SDA	
5 GND	5 GND	7	GND	

RS-232: MicroLogix 1000, 1100, 1200, 1500 must set DH485 protocol.

	MT8000 RS232 9P D-SUB						MicroLo mini-D	gix RS232 DIN 8pin
С	OM1	С	OM2	C	OM3			
3	ΤХ	4	ΤХ	7	ТХ	- 	4	RXD
2	RX	6	RX	8	RX		7	TXD
5	GND	5	GND	5	GND		8	GND

RS-232: SLC5/03,04,05 CH0 must set DH485 protocol.

MT8000 RS232
9P D-SUB Female

AB CPU CH0 RS-232 9P D-SUB Male

C	COM1	C	OM2	C	OM3			
3	ΤХ	4	ΤХ	7	ΤХ	-	2	RD
2	RX	6	RX	8	RX		3	TD
5	GND	5	GND	5	GND		5	GND

Caution: AB DH485 supports MT8000 X and iH series only.

Version	Date	Description of Changes
V1.20	Apr/17/2009	



# Allen-Bradley EtherNet/IP (CompactLogix)

Allen-Bradley ControlLogix, CompactLogix, FelxLogix Ethernet <u>http://www.ab.com</u>

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley EtherNet		
	(CompactLogix)		
Com port	Ethernet		
Port no.	44818		
PLC Station No.	1		

## **PLC Setting:**

Communication mode		
	Communication mode	

Bit/Word	Device Type	Format	Range	Memo
	Bx_BOOL	ffddd(dd)	File no. ff: 3, 10~99	Bit data file
В			Element no. ddd: 0~999	
			Bit no. (dd): 0~15	
			File no. ff: 7, 10~99	Integer data file bit level (N7, 10~99)
В	Nx_BOOL	ffddd(dd)	Element no. ddd: 0~999	
			Bit no. (dd): 0~15	
W	Bx_INT	fffddd	File no. fff: 3, 10~255	Bit data file word level
vv			Element no. ddd: 0~255	
W	N <sub>2</sub> INT	fffddd	File no. fff:0~255	Integer data file (N7, 10~99)
vv		maaa	Element no. ddd:0~255	
F	F8_REAL	ddd	ddd:0~255	Floating point data file (F8)
F	Fx_REAL	fffddd	File no. fff:0~255	Floating point data file (F8)

	TEK			PLC Connection Guide
			ddd:0~255	
DW	Tx.PRE	fffddd	File no. fff: 4, 10~255	Timer Preset Value (T4, T10~255)
Dw			Element no. ddd: 0~255	
DW	Tx.ACC	fffddd	File no. fff: 4, 10~255	Timer Accumulator Value (T4,
Dw			Element no. ddd: 0~255	T10~255)
DW	Cx.PRE	fffddd	File no. fff: 5, 10~255	Counter Preset Value (C5, C10~255)
Dw			Element no. ddd: 0~255	
DW		fffddd	File no. fff: 5, 10~255	Counter Accumulator Value (C5,
DW	CA.ACC		Element no. ddd: 0~255	C10~255)

Ethernet:

MT80	00 Ethernet	Wire color	Ethernet Hub or Switch	
RJ45			RJ45	
1	TX+	White/Orange	1 RX+	1 8
2	TX-	Orange	2 RX-	
3	RX+	White/Green	3 TX+	RJ45
4	BD4+	Blue	4 BD4+	connector
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	

#### Ethernet: Direct connect (crossover cable)

MT8000 Ethernet		Wire color	CPU Ethernet po		hernet port
RJ45				RJ45	
1	TX+	White/Orange	]	3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown	]	8	BD3-

RSLogix 5000 setting

Create the Tag:

The name format must use 4 chars like B003, T004, C005, N007, F008.

Two or three chars are not available. For example B03 or B3.



RSLogix 5000 - TEST File Edit Yiew Search	[1769-L20] - [Progra h <u>L</u> ogic <u>C</u> ommun	am Tags - MainPrograi nications <u>T</u> ools <u>W</u> ir	n] 1dow Help		X
		2		<u>&amp; &amp; &amp; I  </u>	1 2 0 0
Offline     Image: Constraint of the second se	UN K AT O		<none>          + vorites √ Bit √ □</none>	-   -1/1+   -( -)-   -(U)-   -(L)- imer/Counter 🔏 Input/Ou	▼ 器 tput & Compare
Controller TEST     Controller TEST     Controller     Controller     Power-Up     Tesks     Motion Groups     Trends     Tends	New Tag Monitor Tags Edit Tags Verify Export Tags	ope: MainProgram ag Name	⊻ Sh <u>o</u> w: S ⊽ Value	how All 💽 S	iogt: Tag Name 💌 lyle Type 🔺
E I/O Configurat	Print				*
Create a tag		Monitor Tags	K Edit Tags /	<b>▲</b>	

lame:	B003	OK
escription:		Cancel
		Help
ag Type:	C Base C Alias C Produced 2 const C Consumed	umers
lata <u>T</u> ype:	INT[255]	Configure
cope:	TEST (controller)	-
tyle:	Decimal	•
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Select Data Data Typ INT(25) FBD TI FBD TI FIL TER FIL TER	Type es: MER UNICATE HIGH PASS DOW PASS NOTCH JOP J. OP J. OP J. OP J. OP J.	OK Cancel Help
Select Data Data Tyr FBD TI FBD TI FBD TI FIL TER FIL	Type es: MER UNCATE HIGH PASS LOW PASS NOTCH JOP D JOP J NOTCH JOP J JOP J JOP J JOP J JOP J JOP J JOP J JON GENERATOR HIT J Jimensions Dim 1 Drm	OK Cancel Help

Version	Date	Description of Changes
V1.10	Dec/30/2008	



# Allen-Bradley EtherNet/IP (CompactLogix) –

# **Free Tag Names**

#### Allen-Bradley CompactLogix, FelxLogix Ethernet

http://www.ab.com

#### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley EtherNet/IP-Tag		
	(CompactLogix)		
Com port	Ethernet		
Port no.	44818		
PLC Station No.	1		

## **PLC Setting:**

Communication mode

1. Set PLC IP address.

Controller Organizer 🚽 🗸 🗸	Module Properties: Controller: 1 (1769-L23E-OB1 Ethernet Port 18 11)
Controller AB Controller Tags Controller Tags Controller Fault Handler Power-Up Handler Tasks Controller Fault Handler Controlle	General*       Connection       RSNetWork       Module Info       Port Configuration       Port Diagnostics         Type:       1769-L23E-QB1 Ethernet Port 10/100 Mbps Ethernet Port on CompactLogis/5323E-QB1         Vendor:       Allen-Bradley         Parent:       Controller         Name:       OccaEN8         Description:       IP Address:       192 . 168 . 1 . 130         Sigt:       1       Major Revision:       18
HO Configuration     GompactLogix5323E-QB1 System     To 1769-L23E-QB1 AB     To 22E-QB1 AB     To 22E-QB1 AB     To 22E-QB1 AB	Status:         Offline         OK         Cancel         Apply         Help           O Is a synchronized time slave         fault if no other time master exists in the
	O Duplicate CST master detected local chassis.     O CST Mastership disabled     No CST master     Advanced
	確定 取消 変用(Δ) 説明



#### 2. Create Tags.

👪 RSLogix 5000 - 🗚 [1769-L23E-QB1 18.11]* -	[Controller Tags - AB(controller)]				
🃝 File Edit View Search Logic Communications	Tools Window Help				
	👱 🕰 🕰 Ç		R. Q. Select .	a Language	<b>y</b>
Rem Run     Image: Controller OK       No Forces     Image: Controller OK       No Edits     Image: Controller OK       Image: Controller OK     Image: Controller OK	Path: AB_ETH-1\192.168.1.1	30\Backplane\0* -()(L)- Safety & Alarms &	▼ 品 ト Bit { Timer/Co		
Controller Organizer 🗸 🕂 🗙	Scope: 🛐 AB 🛛 🖌 Si	how: All Tags			~
Controller AB	Name	Value 🗲	Force Mask 🗧 🗲	Style	Data Type
Controller Fault Handler	+ ABC	56		Decimal	DINT
🔲 Power-Up Handler	+ Array2D	{}	{}	Decimal	DINT[25,5]
😑 😁 Tasks	+ ArrayBool	{}	()	Decimal	BOOL[256]
🖻 🧔 MainTask	+ ArrayDINT	{}	{}	Decimal	DINT[130]
Hankadulad Program	+ ArrayReal	{}	{}	Float	REAL[125]
Motion Groups	b1	0		Decimal	BOOL
Information of the second seco	+ INT	{}	()	Decimal	INT[360]
- 🔁 Add-On Instructions	+ Local:1:C	()	)		AB:Embedded IQ
😑 😁 Data Types	+ Local:1:1	()	()		AB:Embedded IQ
🕀 🔛 User-Defined	+ Local 2°C	()	()	1	AB:Embedded 0
H 🔐 Strings	+ 1 ocal 21	1	()		AB:Embedded 0
Rad-On-Denned	+ Local 20	1)	1	-	AB:Embedded 0
H Module-Defined	VarBool		,	Decimal	BOOI
- Trends	+ VarDint	21862		Decimal	DINT
😑 😁 I/O Configuration	t Varlet	21002		Decimal	INIT
🖻 🚝 CompactLogix5323E-QB1 System	VaPaal	0.0		Clash	DEAL
1769-L23E-QB1 AB	Valineal	0.0		Disalect	CINT
🖃 🛷 1769-L23E-QB1 Ethernet Port LocalEN	+ VarSint	-128		Decimal	SINT

#### 3. Export Tags data to CSV file.



4. In EB8000, create Allen-Bradley EtherNet/IP-Tag (CompactLogix) driver.

Input PLC IP address. In System Parameter Settings dialog click [Import Tag...] button.

70.1.00000	eter Settings	-			×	Look in:	🗁 EB8000	S 🖉 😕 🖽 -
Font		Extended	Memory	Printer/Back	kup Server		driver	24
Device evice list :	Model		General Sy	rstem Setting	Security	My Recent Documents	Font HMI_memory	
0.	Name	Location	Device type	Interface		Desktop	media_driver project SD_card	
ocal HMI	Local HMI	Local	MT6070iH/MT8070.	Disable			iausb1	
						My Computer	File name: Files of type:	AB-T ags RSLogik 5000 Import/Export File (*.CSV)
						EasyBuil	der8000	

5. In object dialog, select PLC, click Tag and select a controller tag.

eneral Security S	hape Label		
Description :			
Read address			
PLC name :	Allen-Bradley EtherNet/I	P-Tag (CompactLog	gix/ 💙 🛛 Setting
Tag :	0		~ ?
	Name	Data Type	Description
Dinking	☐ Controller Tags	BOOL[256] BOOL BOOL	
Mode :			

PLC Data Type Name	Bit/Word	EB8000 Data format	Memo
BOOL	Boolean	Bit object	
INT	Integer	16-bit signed, ASCII	-32768~32767
DINT	Double Integer	32-bit signed	-2 <sup>31</sup> ~(2 <sup>31</sup> -1)
REAL	Single Precision Float	32-bit Float	IEEE 754



#### Ethernet:

MT8000 Ethernet RJ45		Wire color		Ethernet Hub or Switch RJ45		
1	TX+	White/Orange		1	RX+	
2	TX-	Orange		2	RX-	
3	RX+	White/Green		3	TX+	
4	BD4+	Blue		4	BD4+	
5	BD4-	White/Blue		5	BD4-	
6	RX-	Green		6	TX-	
7	BD3+	White/Brown		7	BD3+	
8	BD3-	Brown		8	BD3-	



# Ethernet: Direct connect (crossover cable)

MT80 RJ45	00 Ethernet	Wire color	,	CPU E RJ45	thernet port
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown	]	8	BD3-

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# Allen-Bradley EtherNet/IP (ControlLogix) – Free

# **Tag Names**

Allen-Bradley ControlLogix, CompactLogix, FelxLogix Ethernet <a href="http://www.ab.com">http://www.ab.com</a>

#### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley EtherNet/IP-Tag		
	(ControlLogix)		
Com port	Ethernet		
Port no.	44818		
PLC Station No.	The same as CPU Slot No.		

## PLC Setting:

Communication mode

1. Set PLC IP address.

Controller Organizer 🚽 🗸 🗸	Module Properties: Controller:1 (1769-L23E-OB1 Ethernet Port 18.11)
Controller AB Controller Tags Controller Fault Handler Conver-Up Handler Controller Sault Handl	General*         Connection         RSNetWorx         Module Info         Port Configuration         Port Diagnostics           Type:         1769-L23E-QB1         Ethernet Port 10/100 Mbps Ethernet Port on CompactLogix5323E-QB1           Vendor:         Allen-Bradley           Parent:         Controller
Motion Groups	Name:     LocalENB       Description:     Image: Constraint of the second seco
Add-On Instructions  Call Data Types  C	Slgt: 0Host Name: Slgt: 1 Major Revision: 16
fin 1769-L23E-OB1 AB	O     Is a synchronized time slave     fault if no other time master exists in the local chassis.       O     Duplicate CST master detected     local chassis.       O     CST Mastership disabled     a       O     No CST master     Adyanced
	確定 取消 要用 ( ) 説明 。



#### 2. Create Tags.

🕌 RSLogix 5000 - AB [1769-L23E-QB1 18.11]* -	[Controller Tags - AB(controller)]				
🍺 File Edit View Search Logic Communications 1	fools Window Help				
	🖌 🙀 🛱 🖓		R. Q. Select i	a Language	<b>v 9</b>
Rem Run     Image: Controller OK       No Forces     Image: Controller OK       No Edits     Image: Controller OK       Image: Controller OK     Image: Controller OK	Path:         AB_ETH-1\192.168.1.13           Image: Head of the state of the	0\Backplane\0* -(_)(U)(L)- afety & Alarms &	→ 品 ト Elf 《 Timer/C		
Controller Organizer 🚽 🗸 🗙	Scope: 🗊 AB 🛛 😽 Sh	ow: All Tags			~
Controller AB	Name	Value +	Force Mask 🗧 🗧	Style	Data Type
Controller Fault Handler	I → ABC	56		Decimal	DINT
🔲 Power-Up Handler	🛨 Array2D	{}	{}	Decimal	DINT[25,5]
😑 😁 Tasks	+ ArrayBool	{}	()	Decimal	BOOL[256]
🖻 🧔 MainTask	+ ArrayDINT	{}	{}	Decimal	DINT[130]
🛨 🕰 Mainfrogram	+ ArrayReal	{}	{}	Float	REAL[125]
Motion Groups	ь1 b1	0		Decimal	BOOL
Information of the second seco	+ INT	()	()	Decimal	INT[360]
- 🔁 Add-On Instructions	+ Local:1:C	()	()	1	AB:Embedded IQ
😑 😁 Data Types	+ Local1:1	()	()		AB:Embedded IQ
🕀 🔛 User-Defined	+ Local 2:C	()	()		AB:Embedded 0
E in Strings	+ 1 ocal 21	1	()		AB:Embedded 0
Rad-On-Derinea	± Local 20	1)	1		AB:Embedded 0
H Module-Defined	VarBool	0	(,	Decimal	BUDI
- Trends	+ VarDint	21862		Decimal	DINT
😑 😁 I/O Configuration	+ Variet	0		Decimal	INT
🖃 🚝 CompactLogix5323E-QB1 System	1/arPaal	0.0		Float	DEAL
1769-L23E-QB1 AB	waineai	0.0		Desired	OLAL
🖃 🛷 1769-L23E-QB1 Ethernet Port LocalEN	± varsint	-128		Decimal	51N1

#### 3. Export Tags data to CSV file.



4. In EB8000, create Allen-Bradley EtherNet/IP-Tag (ControlLogix) driver.

Input PLC IP address. In System Parameter Settings dialog click [Import Tag...] button.

ет Рагат	eter Settings					Look in	EB8000	S 🕈 😕 🖽 -
Font		Extended	Memory	Printer/Bacl	kup Server		driver	
Device evice list :	Model		General Sy	stem Setting	Security	My Recent Documents	Gfont HMI_memory	
√o.	Name	Location	Device type	Interface		Desktop	media_driver project	
ocal HMI	Local HMI	Local	MT6070iH/MT8070.	. Disable			iausb1	
						My Computer	File pame: Files of type:	AB-Tags RSLogix 5000 Import/Esport File (*.CSV)
						The state of	and the second	
						LasyFill	der8000	

5. In object dialog, select PLC, click Tag and select a controller tag.

eneral	Security	Shape Label				
	Description	:[				j.
Read	address					
	PLC name	Allen-Bradley	EtherNet/IP	-Tag (CompactLo	gix/i 💙 🦲 Set	ting
	Tag	: 0			~ ?	
		Name		Data Type	Description	
		😑 Control	ler Tags			
		🕀 Ans	yBool	BOOL[256] BOOL		
		Varl	Bool	BOOL		
		Statistics of the second secon				
Bunki	ng					
	Mada					
	MOUE	38) L				

PLC Data Type Name	Bit/Word	EB8000 Data format	Memo
BOOL	Boolean	Bit object	
INT	Integer	16-bit signed, ASCII	-32768~32767
DINT	Double Integer	32-bit signed	-2 <sup>31</sup> ~(2 <sup>31</sup> -1)
REAL	Single Precision Float	32-bit Float	IEEE 754



#### Ethernet:

MT8000 Ethernet RJ45		Wire color		Ethernet Hub or Switch RJ45		
1	TX+	White/Orange		1	RX+	
2	TX-	Orange		2	RX-	
3	RX+	White/Green		3	TX+	
4	BD4+	Blue		4	BD4+	
5	BD4-	White/Blue		5	BD4-	
6	RX-	Green		6	TX-	
7	BD3+	White/Brown		7	BD3+	
8	BD3-	Brown		8	BD3-	



# Ethernet: Direct connect (crossover cable)

MT80 RJ45	00 Ethernet	Wire color	,	CPU E RJ45	thernet port
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown	]	8	BD3-

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# Allen-Bradley EtherNet/IP (DF1)

Allen-Bradley MicroLogix 1100, 1400, SLC5/05 Ethernet port. MicroLogix1000, 1200, 1500, SLC 5/03, 5/04 with 1761-NET-ENI

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Allen-Bradley EtherNet/IP		
Com port	Ethernet		
TCP Port no.	44818		
HMI Station No.	0		
PLC Station No.	1		

## **PLC Setting:**

Communication mode

Port Setting: 10/100 Mbps Full Duplex/Half Duplex

Bit/Word	Device	Format	Range	Memo	
	Туре	Format	Kange		
В	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)	
В	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)	
В	В3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)	
			File no. fff: 3, 10~254	Bit data file (B3, 10~254)	
В	Bfn	fffddd(dd)	Element no. ddd: 0~254		
			Bit no. (dd): 0~15		
			File no. fff: 7, 10~254	Integer data file bit level (N7,	
В	NfnBit	fffddd(dd)	Element no. ddd: 0~254	10~254)	
			Bit no. (dd): 0~15		
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)	
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)	
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)	
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)	
W	N7	ddd	ddd:0~254	Integer data file (N7)	
W	Nfa	fffddd	File no. fff:0~254	Integer data file (N7, 10~254)	
W	ININ	IIIddd	Element no. ddd:0~254		

	ĸ			PLC Connection Guide
32bit Float	F8	ddd	ddd:0~254	Floating point data file (F8)
22hit Floot Efe		File no. fff:0~254	Floating point data file (F8, 10~254)	
32011 F10at F11		IIIddd	Element no. ddd:0~254	
		000144	File no. fff:0~254	Driver version 2.00 or above support
Dw	LIN	Ltn fffddd	Element no. ddd:0~254	

Ethernet: Direct connect (crossover cable)



MT8000 Ethernet Wire cold		Wire color			PLC
	RJ45				RJ45
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown	<u> </u>	8	BD3-



Ethernet:



MT8000 Ethernet		Wire color		Ethernet Hub or Switch	
]	RJ45				RJ45
1	TX+	White/Orange	]	1	RX+
2	TX-	Orange		2	RX-
3	RX+	White/Green		3	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		6	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown		8	BD3-

# 1 8 RJ45

Version	Date	Description of Changes
V1.9	Apr/17/2009	
V2.00	Dec/21/2009	Add Lfn register

# **Allen Bradley PLC5**

#### http://www.ab.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	AB PLC5		
Com port	RS232		
Baud rate	19200	9600, 19200	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

#### **PLC Setting:**

Communication mode DF1 Full Duplex protocol 19200, None, 8, 1 (default)

Bit/Word	Device Type	Format	Range	Memo
В	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
В	00	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
В	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
В	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
W	T4SV	ddd	ddd:0~254	Timer Preset Value (T4)
W	T4PV	ddd	ddd:0~254	Timer Accumulator Value (T4)
W	C5SV	ddd	ddd:0~254	Counter Preset Value (C5)
W	C5PV	ddd	ddd:0~254	Counter Accumulator Value (C5)
W	N7	ddd	ddd:0~254	Integer data file (N7)
W	N10~15	ddd	ddd:0~254	Integer data file (N10~15)
W	F8	ddd	ddd:0~254	Floating point data file (F8)
W	Nfn	fffddd	File no. fff:7,9~254	Integer data file (V2.5.0 or newer)
vv			Element no. ddd:0~254	
W	Ffn	fffddd	File no. fff:8,9~254	Floating point data file (V2.5.0 or

	EK				PLC Connection Guide
Bit/Word	Device Type	Format	Range	Memo	
			Element no. ddd:0~254	newer)	

Allen-Bradley PLC-5 Family PLCs using the DF1 Full Duplex protocol.

For the PLC-5/10, PLC-5/15 and PLC-5/25 the MT8000 should be connected to:

• the DF1 port on the 1785-KE module;

for the PLC-5/11, PLC-5/20, PLC-5/30 and PLC-5/40 the MT8000 should be connected to:

• the Channel 0 Port on the PLC.

#### Wiring diagram:

#### RS-232: PLC5 CPU CH0

EasyView MT8000

9P D-SUB

COM1 [RS232] COM2 [RS232] COM3 [RS232]

AB CPU CH0 RS-232

C	JMT [KS232]	CC	JM2 [RS232]	CC	JM3 [RS232]	23	P D-SUB
3	TX	4	TX	7	TX	3	RXD
2	RX	6	RX	8	RX	2	TXD
5	GND	5	GND	5	GND	7	GND

#### Note:

#### The default error check of AB PLC5 is BCC, whereas our driver is CRC.

🚦 RSLogix 5 Pro		
<u>File E</u> dit <u>V</u> iew <u>S</u> earch <u>C</u> omms <u>T</u> ools	udow <u>H</u> elp	
] D 📽 🖬 🚳   X 🖻 🖻   🕫 🌼		
OFFLINE     Image: No Forces       No Edits     Image: Forces Disabled       Driver: AB_DF1-1     N	Image: 1d     Image: 3 per 3/2 <> <>      Image: 3 per 3/2 <>        Image: 1d     Image: 1d     Image: 1d     Image: 1d	Compare
	LAD 2 - SYSTEM	
Project      Project      Project      Ontroller	B31:0 	N42:0
Controller Properties  Processor Status  Configuration  N Configuration  N Configuration  N Configuration		MSG Read/Write Message Control N13:0 Setup Screen
<ul> <li></li></ul>	002 N13:0 12 N13:0	N13:0 
LAD 2-SYSTEM		Asad Write Message (EN) Control N13:15 Setup Screen (ER)
LAD 7 - UAIDE	004 12 SYSTEM	N13:15 (U) 15
For Help, press Fl		Class 1 0000 0000 APP READ



Access "Channel Configuration" from RSLogix5, under Channel 0 tab, please select CRC for Error Detect.

Edit Channel Properties	
Channel 0 Channel 1A Chan	nel 1B
Communication Mode System (Point-To-Point) System (Slave) System (Master) User (ASCII)	Remote Mode Change Attention Char/Wx1b Enable System: S User: U
	Diagnostic File: 103
Serial Port Options	
Baud Rate: 9600	Parity: None 💌
Bits Per Char: 8	Error Detect: CRC
Stop Bits: 1	
Control Line: No Handsh	naking 🗾
-	
確定 取消	Ⅰ — — — — — — — — — — — — — — — — — — —

Version	Date	Description of Changes
V1.20	Apr/17/2009	


## **Altus ALNET-I**

Altus SeriesMode : PO3042, PO3142, PO3242, PO3342, PL103 ,PL104, PL105, QK800, QK801, QK2000.

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Altus ALNET-I		
Com port	RS232		
Station no.	0		
Baud rate	9600		
Parity bit	even		
Data Bits	8		
Stop bit	1		

### **Device address:**

Bit/Word	Device Type	Format	Range	Device Range
В	M_Bit	dddd(h)	0~ 1023f	Memories
В	А	ddd(h)	$0 \sim 511 f$	Auxiliary Relays
В	Е	ddd(h)	$0 \sim 511 f$	Input Relays
В	D_Bit	dddd(dd)	0~102331	Decimals
В	F_Bit	dddd(dd)	0~102331	Reals
В	I_Bit	dddd(dd)	0~102331	Integers
В	S	ddd(h)	$0 \sim 511 f$	Output Relays
W	М	dddd	0~1023	Memories
DW	D	dddd	0~1023	Decimals
DW	F	dddd	0~1023	Reals
DW	Ι	dddd	0~1023	Integers
W	ТМ	hhhh	$0 \sim FFFF *$	Memory Tables
DW	TD	hhhh	$0 \sim FFFF *$	Decimal Tables
DW	TF	hhhh	0 ~ FFFF *	Real Tables
DW	TI	hhhh	0 ~ FFFF *	Integer Tables

Note: TM, TD, TF and TI in PLC software's format is TXA[B], M, D, F, I types are X.

B address range is  $0 \sim FF$  and A address range is  $0 \sim FF$ ; the device type is AABB, the range is depend on the PLC settings.



For example Model PO3242 "A" range is "0" and "B" range is  $0 \sim 7$ .

### Wiring diagram:

#### PLC PO3042, PO3142, PO3242, PO3342

MT8000 RS232 9P D-SUB

CO	OM1	COM2	COM3	RJ45 Port	
3	ТХ	4 TX	7 TX	3 RX	
2	RX	6 RX	8 RX	2 TX	
5	GND	5 GND	5 GND	5 GND	1 8

#### PLC PL103, PL104, PL105

MT8000 RS232 9P D-SUB

#### PLC COM1 RS232

CC	DM1	CC	DM2	CC	DM3	9P D	-SUB
3	ТХ	4	ТХ	7	TX	1	RX
2	RX	6	RX	8	RX	7	TX
5	GND	5	GND	5	GND	5	GND

#### PLC QK800,QK801,QK2000.

MT8000 RS232 9P D-SUB

PLC COM1 RS232

CC	DM1	CC	DM2	CC	DM3	9P D	-SUB
3	ТХ	4	ТХ	7	ТХ	3	RX
2	RX	6	RX	8	RX	2	TX
5	GND	5	GND	5	GND	 7	GND

Version	Date	Description of Changes
V0.01	Jul/24/2009	



### Baumuller

http://www.baumuller.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Baumuller		
Com port	RS485 4W COM1		
Baud rate	19200	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0	Defaults	

### **Baumuller Servo Setting:**

Communication mode	RK 512 Protocol, 19200, 8, 1, EVEN
--------------------	------------------------------------

Bit/Word	Device Type	Format	Range	Device Range
В	DB0_bit	ddd(h)	ddd:0~255 (h): 0~f	DB0_bit~DB29_bit
W	DB0	ddd	ddd:0~255	DB0~DB29



#### RS-485 4W:

#### **MT8000 HMI COM1**

RS485 4W 9P D-SUB

Baumuller servo RS-422 9P D-SUB Female

Female

1 RX-	1 TXD-
2 RX+	9 TXD+
3 TX-	5 RXD-
4 TX+	6 RXD+
5 GND	8 GND

Version	Date	Description of Changes
V1.10	Apr/17/2009	



## **Cimon CM1-CP4A/ECO1A**

#### Cimon CM1 series, CP4A module

http://www.kdtsys.com

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Cimon CM1-CP4A/ECO1A		
Com port	RS232		
PLC station No.	1		
Baud rate	38400		
Data bit	8		
Parity bit	None		
Stop bit	1		

### **PLC Setting:**

Bit/Word	Device type	Format	Range	Memo
В	Х	dd(h)	$0 \sim 23F$	0-1F read only
В	Y	dd(h)	$0 \sim 23 F$	
В	М	ddd(h)	0~511F	
В	K	ddd(h)	$0 \sim 127 F$	
В	Т	dddd	0~1023	
В	С	dddd	0~1023	
В	L	ddd(h)	$0 \sim 127 F$	
В	F	ddd(h)	$0 \sim 127 \mathrm{F}$	Read only
W	D	dddd	0~4999	
W	S	dd	0~99	Max. range: 99
W	TS	dddd	0~1023	
W	TC	dddd	0~1023	
W	CC	dddd	0~1023	
W	CS	dddd	0~1023	



#### EasyView MT8000 HMI

9P	D-SUB			CM1-CP4A 6P PL 11 Famala	
CC	OM1 [RS232]	COM2 [RS232]	COM3 [RS232]	of KJ-11 Pennale	
3	ТХ	4 TX	7 TX	3 RXD	654321
2	RX	6 RX	8 RX	2 TXD	6P RJ-11 Female
5	GND	5 GND	5 GND	5 GND	



Version	Date	Description of Changes
V1.00	Nov/30/2009	



## **Cimon CM1-SC02A**

#### Cimon CM series, SC02A module

http://www.kdtsys.com

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Cimon CM1-SC02A		
Com port	RS232	RS485, RS232	
PLC station No.	1		
Baud rate	38400		
Data bit	8		
Parity bit	None		
Stop bit	1		

### **PLC Setting:**

Bit/Word	Device type	Format	Range	Memo
В	Х	dd(h)	$0 \sim 23F$	0-1F read only
В	Y	dd(h)	$0 \sim 23 F$	0-F read only
В	М	ddd(h)	0~511F	
В	K	ddd(h)	$0 \sim 127 F$	
В	Т	dddd	0~1023	
В	С	dddd	0~1023	
В	L	ddd(h)	$0 \sim 127 F$	
В	F	ddd(h)	$0 \sim 127 F$	Read only
W	D	dddd	0~4999	
W	S	dd	0 ~ 99	Max. range: 99
W	TS	dddd	0~1023	
W	ТС	dddd	0~1023	
W	CC	dddd	0~1023	
W	CS	dddd	0~1023	



	MT8000 RS232 9P D-SUB Female						Cimon CN RS- 9P D-SU	A1-SC02A 232 JB Male
C	OM1	С	OM2	C	OM3			
3	ΤХ	4	ΤХ	7	ΤХ		2	RD
2	RX	6	RX	8	RX		3	TD
5	GND	5	GND	5	GND		5	GND

Version	Date	Description of Changes
V1.00	Nov/30/2009	

## **Copley Controls**

Digital Servo Driver & Controllers, Xenus, Xenus Micro, Accelnet, Accelnet Micro, Stepnet series <a href="http://www.copleycontrols.com/motion/">http://www.copleycontrols.com/motion/</a>

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Copley Controls		
Com port	RS232		
Baud rate	9600	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	0	0-127	

### **PLC Setting:**

ASCII format

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
W	Flash INT 16	hhh	0~FFF	For Register is INT16 or U16
W	RAM INT 16	hhh	0~FFF	For Register is INT16 or U16
W	Flash INT 32	hhh	0~FFF	For Register is INT32 or U32
W	RAM INT 32	hhh	0~FFF	For Register is INT32 or U32

### Wiring diagram:

Xenus, Xenus Micro, Accelnet

MT8000 RS232 9P D-SUB

CO	DM1	CO	DM2	CO	OM3		
3	ΤХ	4	TX	7	ТХ	 2	RXD
2	RX	6	RX	8	RX	 - 5	TXD
5	GND	5	GND	5	GND	3,4	GND

Xenus Micro Panel RS-232 RJ11 J7 cable connector







Stepnet

M' 9P	MT8000 RS232 9P D-SUB				Stepnet RS232 RJ J8 cable co	11 onnector			
CC	DM1	CC	DM2	C	OM3				
3	ΤХ	4	TX	7	ΤХ		2	RXD	
2	RX	6	RX	8	RX		 5	TXD	
5	GND	5	GND	5	GND		3, 4	GND	

Accelnet Micro

М' 9Р	T8000 F 9 D-SUB	RS232		Accelnet N RS-232 J5 cable co	Aicro Panel	J4		L
CO	OM1	COM2	COM3					J2
3	ΤХ	4 TX	7 TX	 14	RXD	JS		J1
2	RX	6 RX	8 RX	 29	TXD	2.523	00	5.000
5	GND	5 GND	5 GND	 15	GND		Ĩ	

Version	Date	Description of Changes
V1.20	Dec/30/2008	



## CROUZET M3 (FBD)

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	CROUZET M3 (FBD)		
Com port	RS232		
Baud rate	115200		
Data bit	7		
Parity bit	EVEN		
Stop bit	1		
Station no.	1		

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	SLI_Bit	dd(f)	1(0)~24(f)	Serial link input
В	SLO_Bit	dd(f)	25(0)~48(f)	Serial link output (read only)
W	IA	dd	1~99	Analogy input (default: 1 ~ 4)
W	SL_IN	dd	1~24	Serial link input
W	SL_OUT	dd	25~48	Serial link output (read only)

### Wiring diagram:

MT8000 RS232 9P D-SUB Male	CROUZET M3 RS-232 9P D-SUB Female (Extension cable)		
3 TX	-	3	RD
2 RX		2	TD
5 GND		5	GND
7 RTS		4	DTR



(3m serial link cable)

Note: Please use 3m serial link cable (Accessories from Millenium 3) and extension cable (as above) to communicate with MT8000/6000 series.

MT6050/8050i RS232 9P D-SUB Male COM1	CROUZET CD12 RS-232 9P D-SUB Female (Extension cable)		
6 TX	3	RD	
9 RX	2	TD	
5 GND	5	GND	
4 TX+	4	DTR	





HMI

User's cable

88970102

Millenium 3



## CROUZET M3 (LAD)

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	CROUZET M3 (LAD)		
Com port	RS232		
Baud rate	115200		
Data bit	7		
Parity bit	EVEN		
Stop bit	1		
Station no.	1		

Bit/Word	Device Type	Format	Range	Memo
В	Ι	dd	1~99	Input (default: $1 \sim 4$ )
В	0	dd	1~99	Output (default: $1 \sim 4$ )
В	М	dd	1~28	Relay
В	SLI_Bit	dd(f)	1(0)~24(f)	Serial link input
В	SLO_Bit	dd(f)	25(0)~48(f)	Serial link output (read only)
W	IA	dd	1~99	Analogy input (default: 1 ~ 4)
W	Т	dd	1~12	Timer
W	С	dd	1~16	Counter
W	SL_IN	dd	1~24	Serial link input
W	SL_OUT	dd	25~48	Serial link output (read only)



MT8000 RS232 9P D-SUB Male	]	CRO F 9P D-S (Exter	UZET M3 RS-232 SUB Female nsion cable)
3 TX		3	RD
2 RX		2	TD
5 GND		5	GND
7 RTS		4	DTR



#### (3m serial link cable)

Note: Please use 3m serial link cable (Accessories from Millenium 3) and extension cable (as above) to communicate with MT8000/6000 series.





## **Danfoss ECL Apex20**

http://www.danfoss.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Danfoss ECL Apex20		
Com port	RS232		
Baud rate	9600		
Parity bit	None		
Data Bits	8		
Stop Bits	1		
PLC Station No.	1		

### **Device address:**

Device Type	Format	Range	Memo
Flag	DDDD	0-8191	
Input	DDD	0-511	
Output	DDD	0-511	
Register	DDDD	0-4095	
Counter	DDDD	0-1599	
Timer	DDDD	0-1599	
Reg_Float	DDDD	0-4095	Support 32-bit float format

EB8000 device addresses range may different with PLC extended mode, please refer EB8000's addresses range as above.

ddd:Decimal



RS232: MT8000 9P D-SUI	<b>RS232</b> 3 Male		ECL Apex20 Controller
COM1	COM2	COM3	9P D-SUB Female
3 TX	4 TX	7 TX	2 RXD
2 RX	6 RX	8 RX	3 TXD
5 GND	5 GND	5 GND	5 GND
			7 RTS
			8 CTS

#### RS485:

#### 9P D-SUB Female

MT8000 RS-48 9P D-SUB Fem	-485 ECL Apex2 Controller			
COM1	COM3		Port# 1	
1 RX-	6 Data-	]	11	
2 RX+	9 Data+	]	12	

#### MT8000 RS-485

MT8000 RS 9P D-SUB F	-485 Female	ECL Apex20 Controller
COM1	COM3	Port# 0
1 RX-	6 Data-	 29
2 RX+	9 Data+	28

Version	Date	Description of Changes
V1.10	Dec/30/2008	

## **Danfoss FC Series**

FC051, FC100, FC200, FC300, VLT Micro Driver. http://www.danfoss.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Danfoss FC Series		
Com port	RS485		
Baud rate	9600		
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
PLC Station No.	1		

### **Device address:**

Bit/Word	Device Type		Format	Range	Memo
Word	Parameter	09	DDD	0-1000	Set Parameter
Dword	Reference	10	DDD	0-0	Control Bus Reference
Dword	Para_Index	11	DDD(DD)	0-999999	Set Parameter(Index)

Para Index 310.1=31001, Para Index 310.0=31000

### Wiring diagram:

RS485: MT8000 RS-485

**FC RS485** 9P D-SUB Female COM1 COM3 RX-Data-69 1 6 2 RX+ 9 Data+ 68

\*RW100 Set PCD1 Control Word. of station 1

\*RW101 read PCD1 Status Word of station 1

\*RW102 Set PCD2 Control Word. of station 2

\*RW103 read PCD2 Status Word of station 2

\*RW104 Set PCD3 Control Word. of station 3

\*RW105 read PCD3 Status Word of station 3



#### \*RW106 Set PCD4 Control Word. of station 4 \*RW107 read PCD4 Status Word of station 4

Version	Date	Description of Changes
V1.00	Mar/05/2010	



## **Danfoss VLT2800 Series**

#### VLT2800 series

http://www.danfoss.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Danfoss VLT2800 Series		
Com port	RS485 2W	RS485 2W	
Baud rate	9600	9600	
Parity bit	Even	Even	
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	1	0-126	According to PLC

### **PLC Setting:**

Communication mode	9600, Even,8,1 (default)

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
W	Reference	dd	0	Control Bus Reference
DW	Parameter	ddd	ddd:0~1000	Set Parameter

It is relate to station number, if station number is 1,control word is RW100,RW101,if station number is 2,the control word is RW102,RW103...following this rule.

### Wiring diagram:

RS-485:

MT8000 RS485 9P D-SUB

COM1	COM3	]		
1 RX-	6 Data-		69	D-
2 RX+	9 Data+		68	D+
5 GND	5 GND			

VLT2800 RS485



Version	Date	Description of Changes
V1.10	Otc/06/2008	



## **DELTA DVP**

#### DELTA DVP series

http://www.deltadriver.com

### **HMI Setting:**

Parameters Recommend		Option	Notes
PLC type	DELTA DVP		
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7, 8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	0-255	

## **PLC Setting:**

Communication mode	

Bit/Word	Device Type	Format	Range	Memo
В	Х	000	0 ~ 23417 (Octal)	Input
В	Y	000	0 ~ 23417 (Octal)	Output
В	М	dddd	0 ~ 9999	Auxiliary Relay
В	S	dddd	0 ~ 9999	Step Relay
В	Т	dddd	0 ~ 9999	Timer
В	С	dddd	0 ~ 9999	Counter
В	TV	dddd	0 ~ 9999	Timer
W	CV	ddd	0~127	Counter
W	CV2	ddd	232 ~ 255	Double word counter
W	D	dddd	0 ~ 9999	Data Register





#### 1. RS232: CPU port

#### MT8000 RS232

	JI D-50D				8	n mi	ni DIN	
С	OM1	С	OM2	С	OM3	0	p m	
3	ΤХ	4	ΤХ	7	ΤХ		4	RXD
2	RX	6	RX	8	RX		5	TXD
5	GND	5	GND	5	GND		8/8	GND



8Pin Mini-Din Female

#### 2. RS485: CPU port

#### MT8000 RS232

DELTA DVP

DELTA DVP CPU

port

RS-485 port

С	OM1	C	COM3	
1	RX-	6	Data-	_
2	RX+	9	Data+	+

Version	Date	Description of Changes
V1.00	Dec/30/2008	

## **EMERSON PLC EC20**

Support Emerson PLC EC20 Series. (Modbus RTU Protocol)

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	EMERSON PLC EC20		
Com port	RS232	RS232, RS422,	
		RS485	
Baud rate	9600	9600,	
		19200,115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0	0-255	

### **PLC Setting:**

Communication mode	Modbus RTU	protocol
--------------------	------------	----------

Bit/Word	Device Type	Format	Range	Memo
В	Y	000	0-377 ( octal ) 256point	0000-0255
В	Х	000	0-377 ( octal ) 256point	1200-01455 0000-0255
В	М	dddd	0-1999	2000-3999
В	SM	ddd	0-255	4400-4655
В	S	ddd	0-991	6000-6991
В	Т	ddd	0-255	8000-8255
В	С	ddd	0-255	9200-9455
W	D	dddd	0-7999	0000-7999
W	SD	ddd	0-255	8000-8255
W	Z	dd	0-15	8500-8515

WE!N	PLC Connection G	uide			
W	Т	ddd	0-255	9000-9255	
W	С	ddd	0-199	9500-9699	
DW	C_Double	ddd	200-255	9700-9811	
DW	D_Double	dddd	0-7998	0000-7999	

#### MT8000 RS232

#### Emerson EC20 COM1

9P D-SUB Male

COM1	COM2	COM3	
3 TX	4 TX	7 TX	RXD
2 RX	6 RX	8 RX	TXD
5 GND	5 GND	5 GND	GND

Version	Date	Description of Changes
V1.10	Dec/30/2008	



## **F930GOT Server**

#### F930GOT general-purpose communication Type 1

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	F930GOT Server		
Com port	RS232		
Baud rate	38400	9600, 115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	1		

### **PLC Setting:**

Communication mode
--------------------

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	RW_Bit	ddddf	dddd:0~65535 f:0~f	
W	RW	ddddd	dddd:0~65535	

In PLC name pull down menu don't select F930GOT Server.

Please select Local HMI, Device type=RW.

### Wiring diagram:

MT8000 RS232 9P D-SUB Female Micro Computer board (RS232)

СС	DM1	СС	DM2	C	DM3			
3	ТΧ	4	ТΧ	7	ТΧ			RD
2	RX	6	RX	8	RX			TD
5	GND	5	GND	5	GND	-		GND



### **Protocol:**

Read Command:

PC → HMI

02	'0'	Read address	Size	CR	

02	30	30	30	30	30	30	32	0D

Read RW0 1word(2bytes) STX=0x02, '0'=Read command, CR=0x0D

Read address (hexadecimal)

0~FFFF = RW0~65535

Size (hexadecimal)

2~FE = 2~254 bytes = 1~127 word.

Size must be even.

HMI→PC (response)

02	Data1	Data2		CR
	1	1	1	

```
02 30 30 31 30 0D
RW0 = 0x0010 = 16
```

Write Command:

PC ➔ HMI

02 '1' Read address Size Data1 D	ata2 CR
----------------------------------	---------

|--|

Write RW0=0x1234

Read address (hexadecimal)

0~FFFF = RW0~65535

Size (hexadecimal)

2~FE = 2~254 bytes = 1~127 word.

Size must be even.

HMI→PC (response) 06 ACK = 0x06



## **FATEK FB Series**

#### FATEK FBs series, FB MC series.

FB MA series need FB-DTBR converter.

http://www.fatek.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	FATEK FB Series		
Com port	RS232	RS232/RS485/Ethernet	Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	Even		Must match the PLC's port setting.
Data Bits	7		
Stop Bits	1		
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	1	0-255	Must match the PLC's port setting.

### **PLC Setting:**

Communication	
mode	
Select	

Bit/Word	Device Type	Format	Range	Memo
В	Х	dddd	dddd : 0~9999	Input
В	Y	dddd	dddd : 0~9999	Output
В	М	dddd	dddd : 0~9999	Internal Relay
В	S	dddd	dddd : 0~9999	Step Relay
В	Т	dddd	dddd : 0~9999	Timer
В	С	dddd	dddd : 0~9999	Counter
В	PLC_MODE	d	d:0	PLC mode
W	R	dddd	dddd : 0~9999	Data Register
W	D	dddd	dddd : 0~9999	Data Register
W	RT	dddd	dddd : 0~9999	Timer Register
W	RC	dddd	dddd : 0~9999	Counter Register
W	DRT	dddd	dddd : 0~9999	Double word Timer Register
W	DRC	ddd	ddd : 200~255	Double word Counter Register
W	WX	dddd	dddd : 0~9999	Input word

l		EK			PLC Connection Guide
	W	WY	dddd	dddd : 0~9999	Output word
	W	WM	dddd	dddd : 0~9999	Internal Relay word

#### 1. RS232: FBs Port0

#### MT8000 RS232

MT8000 R	8232		FBs	03 10
COM1	COM2	COM3	4P Mini-Din Male	
3 TX	4 TX	7 TX	4 RX	PORIO
2 RX	6 RX	8 RX	3 TX	4P
5 GND	5 GND	5 GND	2 GND	Mini-Din

#### 2. RS232: FBs communication module

#### MT8000 RS232

COM1		COM2		COM2 COM3		module
	,,,,,,		/1/12			9P D-SUB Male
3	ΤХ	4	ΤХ	7	TX	3 RX
2	RX	6	RX	8	RX	2 TX
5	GND	5	GND	5	GND	5 GND

#### 3. RS485: FBs communication module

#### MT8000 RS-485] 2w

COM1	COM3	module
00111	come	3P Terminal Block
1 RX-	6 Data-	D-
2 RX+	9 Data+	D+

#### 4. RS232: CPU port

#### MT8000 RS232

FB CPU port
15P D-SUB Male

FBs communication

FBs communication

C	OM1	C	DM2	CO	DM3		
3	ΤХ	4	ΤХ	7	ΤХ	1 RX	
2	RX	6	RX	8	RX	2 TX	
5	GND	5	GND	5	GND	6 GND	
						3 RTS	
						4 CTS	





#### 5. RS485: CPU port

#### MT8000 RS-485 2w

#### FB CPU port

COM1	COM3	15P D-SUB Male
1 RX-	6 Data-	7 D-
2 RX+	9 Data+	5 D+

Version	Date	Description of Changes
V1.40	Jul/09/2010	Add PLC mode device type

## **Fuji NB Series**

http://www.fujielectric.co.jp/fcs/eng/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Fuji NB Series		
Com port	RS485 4W		
Baud rate	19200		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
PLC Station No.	0		

### **PLC Setting:**

Communication mode NITP protocol / PLC Password (default is 0)
--

Bit/Word	Device Type	Format	Range	Memo
В	Y	hhh	0~7ff	Output Relay
В	Х	hhh	0~3ff	Input Relay
В	М	hhh	0~fff	Internal Relay
В	L	hhh	0~fff	Latch Relay
В	С	hh	0-ff	Counter
В	M_Spe	hhhh	8000-81ff	Special Relay
В	Т	hhh	0-1ff	Timer
W	CV	hhh	0-3ff	Counter value
W	TV	hhh	0-3ff	Timer value
W	D	hhhh	0-1fff	Data Register
W	D_Spe	hhhh	8000-80ff	Special Register



MT8000 HMI	FUJI NB Series	
COM1 [RS485]4w	RJ45 8p connector	
9P D-SUB		A
1 RX-	4 TX-	
2 RX+	3 TX+	
3 TX-	6 RX-	8-pin RJ45 Connector
4 TX+	5 RX+	(8P8C)
5 GND		

Version	Date	Description of Changes
V1.10	May/05/2009	



## **GE Fanuc CMM**

#### http://www.ge.com

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	GE Fanuc CMM		
Com port	RS232	RS232/RS485	
Baud rate	19200	9600,19200,38400,57600,115200	Must same as the PLC setting
Parity bit	Odd	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must set as 8 to this protocol
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	0	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	Does not apply to this protocol

### **PLC Setting:**

Refer to related PLC manual

Bit/Word	Device Type	Format	Range	Memo
В	Ι	ddd	1-10000	Input relay
В	Q	ddd	1-10000	Output relay
В	М	ddd	1-10000	Auxiliary relay
В	G	ddd	1-7680	
В	Т	ddd	1-256	
W	AI	ddd	1-10000	Analog input register
W	AQ	ddd	1-10000	Analog output register
W	R	ddd	1-32640	Data register
В	SA	ddd	1-128	
В	SB	ddd	1-128	
В	SC	ddd	1-128	
В	S	ddd	1-128	



#### CPU port(90-30/VersaMax)

#### MT8000 COM1[485]

9P D-SUB

#### 90-30/VersaMax

#### RS485 port

#### 15P SUB-D Female

VersaMax series

1 RX-	12 SDA
2 RX+	13 SDB
5 GND	7 GND
3 TX-	
<u> </u>	 10 RDA
$4  I \Lambda^+$	
	9 KI
	6 RTSA
	15 CTSA
	8 RTSB
	14 CTSB

#### CPU port(90-30 series CPU351/352/363/364)

MT8000 PLC[232]	90-30/90-70 series
9P D-SUB Female	RS232 port
	6P RJ-11 Female
3 TX	 5 RX
2 RX	2 TX
5 GND	 3 GND

65432

MT8000 RS232

9P D-SUB			RS232 port
COM1	COM2	COM3	9P SUB-D Female
3 TX	4 TX	7 TX	3 RX
2 RX	6 RX	8 RX	2 TX
5 GND	5 GND	5 GND	5 GND

<sup>6</sup>P RJ-11 Female



# CPU port(VersaMax series CPU001/002/005/E05)

MT8000 RS232			VersaMax series		
9P D-SUB			RS232 port		
COM1	COM2	COM3	9P SUB-D Female		
3 TX	4 TX	7 TX	3 RX		
2 RX	6 RX	8 RX	2 TX		
5 GND	5 GND	5 GND	5 GND		

Version	Date	Description of Changes
V1.00	20090709	

## GE Fanuc RX3i

http://www.ge.com

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Fanuc RX3i		
Com port	RS232	RS232,RS485	
PLC station No.	1	1~99	
Baud rate	19200	1200~115200	
Data bit	8		
Parity bit	Odd	None,Even,Odd	
Stop bit	1	1 or 2	

### **PLC Setting:**

Refer to related PLC manual

Bit/Word	Device type	Format	Range	Memo
В	Ι	ddddd	1 ~ 32768	
В	Q	ddddd	1~32768	
В	М	ddddd	1 ~ 32768	
В	G	dddd	1~7680	
В	Т	dddd	$1 \sim 1024$	
В	SA	ddd	1~128	
В	SB	ddd	1~128	
В	SC	ddd	1~128	
В	S	ddd	1~128	
W	AI	dd	1 ~ 64	
W	AQ	dd	1 ~ 64	
W	R	dddd	1~2048	



RS-232

#### MT8000 PLC[232]

9P D-SUB			_	COM 1	
COM1	COM2	COM3		9P D-SUB Female	
3 TX	4 TX	7 TX		3 RXD	
2 RX	6 RX	8 RX		2 TXD	
5 GND	5 GND	5 GND		5 GND	

**RS-485** 

#### MT8000 COM1[485]4W

9P D-SUB

#### GE FANUS RX3i

GE FANUS RX3i

COM2

15P SUB-D Female

1 RX-	12 SDA
2 RX+	13 SDB
5 GND	7 GND
3 TX-	10 RDA
4 TX+	11 RDB
	9 RT
	6 RTSA
	15 CTSA
	8 CTSB
	14 RTSB

Version	Date	Description of changes
V1.00	Oct/1/2010	
# **GE Fanuc Series 90-30 (Ethernet)**

GE 90-30 series, CPU model 374plus

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	GE fanuc series 90-30		
	(Ethernet)		
Com port	Ethernet		
PLC station No.	1	1~99	
Port No.	18245		

Bit/Word	Device type	Format	Range	Memo
В	I_bit	dddd	1~2048	
В	Q_bit	dddd	$1 \sim 2048$	
В	M_bit	dddd	1 ~ 4096	
В	G_bit	dddd	1~1280	
В	T_bit	ddd	1~256	
В	SA_bit	dd	1~32	Read Only
В	SB_bit	dd	$1 \sim 32$	Read Only
В	SC_bit	dd	1~32	Read Only
В	S_bit	dd	$1 \sim 32$	Read Only
XX7	T	dddd	dddd 1~2033	Address increases 8 words, ex:
vv	1	uuuu		I1, I9, I17, I25
W	0	dddd	1 2022	the rule is same as above, ex:Q1,
vv	Q	uuuu	adda $1 \sim 2033$	Q9, Q17
W	М	dddd	1 4091	the rule is same as above, ex:M1,
vv	IVI	uuuu	1~4081	M9, M17
W	G	dddd	1 1256	the rule is same as above, ex:G1,
vv	U	uuuu	$1 \sim 1230$	G9, G17
W	т	ddd	1 241	the rule is same as above, ex:T1,
VV	1	uuu	1~241	T9, T17
W	S ^	dd	1~17	Read Only, the rule is same as
VV	SA			above

				PLC Connection Guide
W/	SB	dd	1~17	Read Only, the rule is same as
vv	50			above
W	SC	44	1 ~ 17	Read Only, the rule is same as
VV	30	uu		above
XX /	C	1.1	1 17	Read Only, the rule is same as
vv	w S da		$1 \sim 17$	above
W	R	dddd	1 ~ 9999	
W	AI	dddd	$1 \sim 2048$	
W	AQ	ddd	1~512	

#### Ethernet:

M	F8000 Ether	net Wire color		Ethernet Hub or	
RJ	45			Switch RJ45	
1	TX+	White/Orange		1 RX+	1 8
2	TX-	Orange		2 RX-	RJ45
3	RX+	White/Green		3 TX+	
4	BD4+	Blue		4 BD4+	
5	BD4-	White/Blue		5 BD4-	
6	RX-	Green		6 TX-	
7	BD3+	White/Brown		7 BD3+	
8	BD3-	Brown		8 BD3-	
-			-		



MT RJ4	8000 Etherne 5	t Wire color	Modt RJ45	ous TCP Device
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

#### **Ethernet: Direct connect (crossover cable)**

Version	Date	Description of Changes
V1.20	Jun/29/2009	



# **GE Fanuc SNP-X**

GE Fanuc 90 & VersaMax series PLC

http://www.ge.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	GE Fanuc SNP-X		
Com port	RS485 4w	RS232/RS485	
Baud rate	19200	9600,19200,38400,57600,115200	Must same as the PLC setting
Parity bit	Odd	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must set as 8 to this protocol
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	0	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	Does not apply to this protocol

## **PLC Setting:**

Refer to related PLC manual

Bit/Word	Device Type	Format	Range	Memo
В	Ι	ddd	1-10000	Input relay
В	Q	ddd	1-10000	Output relay
В	М	ddd	1-10000	Auxiliary relay
В	G	ddd	1-7680	
В	Т	ddd	1-256	
W	AI	ddd	1-10000	Analog input register
W	AQ	ddd	1-10000	Analog output register
W	R	ddd	1-32640	Data register
В	SA	ddd	1-128	
В	SB	ddd	1-128	
В	SC	ddd	1-128	
В	S	ddd	1-128	



Memo : 90 VersaMax series PLC of GE FANUC includes such series as 90-30, 90-70, VersaMax Micro, VersaMax Nano and VersaMax,etc., CPU of 90-30series can pass RS485 serial com port on module, utilize SNP serial communication protocol of GE to connect with EasyView MT8000HMI, In addition,

CPU331/340/341/350/351/352/360/363/364 can also connect through CMM311 Communication Module,

CPU351/352/363/364 also can connect through serial com port on CPU Unit ; 90-70 series CPU can also connect through CMM711 Communication Module or connect through serial com port on CPU Unit ; Relevant software and hardware are set up concretely please consult the technical manual that GE GE Fanuc offered.

#### CPU port(90-30/VersaMax)

MT8000 COM1[485]	90-30/VersaMax
9P D-SUB	RS485 port
	15P SUB-D Female
1 RX-	12 SDA
2 RX+	13 SDB
5 GND	7 GND
3 TX-	10 RDA
4 TX+	11 RDB
	9 RT
	6 RTSA
	15 CTSA
	8 RTSB
	14 CTSB

#### CPU port(90-30 series CPU351/352/363/364)

MT8000 PLC[232]	90-30/90-70 series	
9P D-SUB Female		RS232 port
		6P RJ-11 Female
3 TX		5 RX
2 RX		2 TX
5 GND		3 GND



6P RJ-11 Female

MT8000 RS232

9P D-SUB

1	DOOD			10252 por	
CO	OM1	COM2	COM3	9P SUB-D Female	
3	TX	4 TX	7 TX	3 RX	
2	RX	6 RX	8 RX	2 TX	
5	GND	5 GND	5 GND	5 GND	

VersaMax series

RS232 port



#### CPU port(VersaMax series CPU001/002/005/E05)

COM3

COM2

MT8000 I	RS232
----------	-------

9P D-SUB

COM1

VersaMax series RS232 port 9P SUB-D Female

3	ТХ	4	ТХ	7	ТХ	3	RX
2	RX	6	RX	8	RX	 2	TX
5	GND	5	GND	5	GND	 5	GND

Version	Date	Description of Changes
V1.20	Jan/09/2009	



# Han Young Series

Temperature Controller http://hynux.com/kor/

## HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Heng Young Seires		
Com port	RS485 4W		Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
PLC Station No.	1	0-255	Must match the PLC's port setting.

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Ι	ddd	1-699	
W	D	ddd	1-699	

## Wiring diagram:

MT8000 PLC[485]	Han Young
RS485 4w 9Pin D-Sub	RS485
1 RX-	32 TX-
2 RX+	31 TX+
3 TX-	34 RX-
4 TX+	33 RX+

Version	Date	Description of Changes
V1.20	May/20/2009	



# **Heng Yuan Sensor**

EU sereis, EU5 series, EU10 series. http://www.hysensor.com.cn

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Heng Yuan Sensor		
Com port	RS485 2W		
Baud rate	9600		
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	2	1-31	

Online Simulator	YES	
Extend address mode	YES	

### **PLC Setting:**

Communication mode					

Bit/Word	Device Type	Format	Range	Memo
W	Parameter	ddd	ddd:0~1000	



#### EU05 series

MT8000 PLC[485]		RS485 port	Red + Power - Blue
9P D-SUB			(10 02) (03 0 50)
COM1	COM3		BY. Color
1 RX-	6 Data-	7 RX- (Yellow)	Green Yellow
2 RX+	9 Data+	5 RX+ (Green)	
5 GND	5 GND	4 GND (Black)	

Version	Date	Description of Changes
V1.00	Dec/30/2008	

# HITACHI EH-SIO

# **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	HITACHI		
	EH-SIO		
Com port	RS232 RS232, RS485 Must mate		Must match the PLC's port setting.
Baud rate	19200	9600, 19200, 38400	Must match the PLC's port setting.
Parity bit	Even	Even	Must match the PLC's port setting.
Data Bits	7 7 Must match the PLC's pot		Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		
PLC Station No.	0		

# **PLC Setting:**

Communication	19200,E,7,1(default)
mode	
Select	

Bit/Word	Device Type	Format	Range	Memo
р	Х	hhhh(h)	hhhh: 0~FFFF	External Input-bit(X)
D			(h):0~F	
D	Y	hhhh(h)	hhhh: 0~FFFF	External Output-bit(Y)
В			(h):0~F	
D	М	hhhh(h)	hhhh: 0~FFFF	Data area-bit(M)
В			(h):0~F	
D	Т	hhhh(h)	hhhh: 0~FFFF	Timer(T)
В			(h):0~F	
D	R	hhhh(h)	hhhh: 0~FFFF	Internal Output(R)
В			(h):0~F	
В	L	hhhh(h)	hhhh: 0~FFFF	Link area-bit(L)

WE WE	NTEK			PLC Connection Guid
			(h):0~F	
W	TC	hh	hh: 0~FF	Timer/Counter current value
W	WX	hhhh	hhhh: 0~270F	External Input-word(X)
W	WY	hhhh	hhhh: 0~270F	External Output-word(Y)
W	WR	hhhh	hhhh: 0~270F	Internal Output-word(R)
W	WL	hhhh	hhhh: 0~270F	Link area-word(L)
W	WM	hhhh	hhhh: 0~270F	Data area-word(M)

#### EH-SIO port1/port 2 RS232

MT8000 RS-232

9P D-SUB

9P D-SUI	3			port1 / port 2	
COM1	COM2	COM3		8pin RJ45 Male	IΓ
3 TX	4 TX	7 TX		6 RD	]   [
2 RX	6 RX	8 RX		- 5 SD	
5 GND	5 GND	5 GND		1 SG	Port <sup>·</sup>
8 CTS				- 8 RS	8pin l
			<b></b>	4 PHL	



RJ45 Female

#### EH-SIO port2 RS485 4wire (RS422) :

EasyView MT8000 HMI

#### Hitachi EH-SIO

7 DR

PLC RS485port

9PinD-SUB FEMALE

1	RX-	5	TX-
2	RX+	4	TX+
3	TX-	6	RX-
4	TX+	7	RX+
5	GND	1	SG



EH-SIO port2 RS485 2wire :

EasyView MT8000 HMI		Hitachi EH-SIO
PLC RS485 port		
9PinD-SUB FEMALE		
1 RX-		5 TX-
2 RX+		4 TX+
3 TX-		6 RX-
4 TX+		7 RX+
5 GND		1 SG



# HITACHI EHV Series (Ethernet)

HITACHI Web site: http://www.hitachi-ies.co.jp/english/products/plc/index.htm

### **HMI Setting:**

Parameters	recommend	Option	Notes
PLC type	HITACHI		
	EHV		
Com port	Ethernet		
Port no.	3004	3004~3007	

Bit/Word	Device type	Format	Range	Memo
В	Х	hhhh(h)	0~FFFF(F)	External Input-bit(X)
В	Y	hhhh(h)	0~FFFF(F)	External Output-bit(Y)
В	М	hhhh(h)	0~FFFF(F)	Data area-bit(M)
В	Т	ddddd	0~65535	Timer(T)
В	R	hhhh(h)	0~FFFF(F)	Internal Output(R)
В	L	hhhh(h)	0~FFFF(F)	Link area-bit(L)
W	ТС	dddd	0~2559	Timer/Counter current value
W	WX	hhhh	0~FFFF	External Input-word(X)
W	WY	hhhh	0~FFFF	External Output-word(Y)
W	WR	hhhh	0~FFFF	Internal Output-word(R)
W	WL	hhhh	0~73FF	Link area-word(L)
W	WM	hhhh	0~7FFF	Data area-word(M)





Ethernet: MT8000 E RJ45	Cthernet	Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1 RX+	
2	TX-	Orange	2 RX-	
3	RX+	White/Green	3 TX+	RJ45
4	BD4+	Blue	4 BD4+	connector
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	



MT8000 E <u>RJ45</u>	thernet	Wire color		HITAC RJ45	CHI EHV Ethernet
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown	]	8	BD3-

Version	Date	Description of Changes
V1.00	Jan/12/2010	

# HITACHI H/EH/EHV Series

Compatible PLCs			
Family	Model		
HITACHI	EH-150, Micro-EH, H20, H40, H64, H200, H250, H252, H300, H302, H700, H702, H1000,		
H series	H1002, H2000, H4010		

HITACHI Web site: http://www.hitachi-ies.co.jp/english/products/plc/index.htm

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	HITACHI		
	H-Series		
Com port	RS232	RS232, RS485	Must match the PLC's port
			setting.
Baud rate	19200	9600, 19200, 38400	Must match the PLC's port
			setting.
Parity bit	Even	Even	Must match the PLC's port
			setting.
Data Bits	7	7	Must match the PLC's port
			setting.
Stop Bits	1	1	Must match the PLC's port
			setting.
HMI Station No.	0	0-255	Does not apply to this protocol.
PLC Station No.	0	0-255	Does not apply to this protocol.

Online Simulator	YES	Broadcast command	NO
Extend address mode	NO		

## **PLC Setting:**

Communication mode	19200,E,7,1(default)
Select	



Bit/Word	Device Type	Format	Range	Memo
В	Х	hhh(h)	hhh: 0~FFFF (h):0~F	External Input-bit(X)
В	Y	hhh(h)	hhh: 0~FFFF (h):0~F	External Output-bit(Y)
В	М	hhh(h)	hhh: 0~FFFF (h):0~F	Data area-bit(M)
В	Т	hhh(h)	hhh: 0~FFFF (h):0~F	Timer(T)
В	R	hhh(h)	hhh: 0~FFFF (h):0~F	Internal Output(R)
В	L	hhh(h)	hhh: 0~FFFF (h):0~F	Link area-bit(L)
W	TC	hhh	hhh: 0~FF	Timer/Counter current value
W	WX	hhh	hhh: 0~270F	External Input-word(X)
W	WY	hhh	hhh: 0~270F	External Output-word(Y)
W	WR	hhh	hhh: 0~270F	Internal Output-word(R)
W	WL	hhh	hhh: 0~270F	Link area-word(L)
W	WM	hhh	hhh: 0~270F	Data area-word(M)

### **Device address:**

### Wiring diagram:

WARNING: If your communications cable is not wired exactly as shown in our cable assembly instructions, damage to the MT8000 or loss of communications can result.



CPU TYPE	Port 1	Port 2
EH-150/CPU 104A	RS-232	RS-232
EH-150/CPU 208A	RS-232	RS-232
EH-150/CPU 308A	RS-232/RS-485	RS-232
EH-150/CPU 316A	RS-232/RS-485	RS-232
EH-150/CPU 448A	RS-232/RS-485	RS-232

Switch Number					Port set
1	OFF	Norma	Normal mode		
2	OFF	TRNS	) operation		
3, 4	3	4	Port1 transmission speed		
	ON	ON	4,800 bps	Doesn't support	
	OFF	ON	9,600 bps		
	ON	OFF	19,200 bps	Default	Mode
	OFF	OFF	38,400 bps		]



#### WEINTEK

THE, INTER	Ú.			
5	ON	Dedicate	ed port	
6	6	PHL	Port2 transmission speed	
	ON	Low	9,600 bps	
	ON	High	38,400 bps	
	OFF	Low	4,800 bps	Doesn't support
	OFF	High	19,200 bps	Default
7	OFF	(System mode)		Do not turn on.
8	OFF	(System	mode)	Do not turn on.

#### PLC Connection Guide

**Toggle-Switch** 



#### EH-150 port1/port 2 RS232

MT8000 RS	3-232		HITACHI EH-150
9P D-SUB			port1 / port 2
COM1	COM2	COM3	8pin RJ45 Male
3 TX	4 TX	7 TX	6 RD
2 RX	6 RX	8 RX	5 SD
5 GND	5 GND	5 GND	1 SG
8 CTS			8 RS
			4 PHL
			7 DR

Port 1 / Port 2 8pin RJ45 Female

#### EH150port1 RS485 4wire (RS422) :

EasyView MT8000 HMI	Hitachi EH-150
PLC RS485port	port1
9PinD-SUB FEMALE	8PinRJ45port
1 RX-	5 TX-
2 RX+	4 TX+
3 TX-	6 RX-
4 TX+	7 RX+
5 GND	1 SG

EH150port1 RS485 2wire :

EasyView MT8000 HMI PLC RS485 port Hitachi EH-150 port1 8PinRJ45 port

9PinD-SUB FEMALE

1 RX-	5 TX-
2 RX+	4 TX+
3 TX-	6 RX-

WEINTEK			PLC Connection Guide
4 TX+	<u> </u>	7 RX+	
5 GND	]	1 SG	

H series CPU RS232 port

#### MT8000 PLC[232]

#### HITACHI H series CPU RS232

9P D-SUB Male

15p D-SUB Male

COM1		
3 TX		3 RXD
2 RX		2 TXD
5 GND	•	9 SG
8 CTS		4 RTS
		10 SG
		5 CTS
		7 DSR
		8 PHL
		14 PV12

#### MICRO-EH port1 RS232

MT8000 RS	S-232			HITACHI	
9P D-SUB				MICRO-EH port1	
COM1	COM2	COM3		8pin RJ45 Male	
3 TX	4 TX	7 TX		6 RD	
2 RX	6 RX	8 RX		5 SD	
5 GND	5 GND	5 GND		1 SG	Port 1
8 CTS				8 RS	8pin RJ45
				4 PHL	opinitiono
				7 DR	

Version	Date	Description of Changes
V1.10	Oct/22/2009	Fixed HMI occupies the control right of CPU module
V1.0	Dec/30/2009	



# HUST H4X

HUST CNC Controller H4 Series http://www.hust.com.tw/

# **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	HUST H4X		
Com port	RS-232		CPU port
PLC Station	Null		
No.			
Baud rate	38400		9600,19200,38400,57600
Data bit	7		
Parity bit	Even		
Stop bit	2		
Turn delay	5		

Bit/Word	Device Type	Format	Range	Memo
DW			1 00000	Please refer to specification of
DW	V IVI	aaaaa	1~999999	Controller for registers range.
DW	D	444	0 255	Mapping to VM 10000~10255 (read
DW	K	ddd	0~255	only)
DW	Cn	ddd	0 255	Mapping to VM 10256~10511 (read
DW	W Ch $ddd 0 \sim 255$	only)		
DW	Tm	444	0255	Mapping to VM 10512~10767 (read
DW	1 111	ada 0~255	only)	
р	T	ddd	0255	Mapping to VM 10800 ~ 10807 (read
D	1	uuu	0~255	only)
D	0	444	0 255	Mapping to VM 10808 ~ 10815 (read
D	0	uuu	0~255	only)
р		Mapping to VM 10816 ~ 10823 (read		
D	C	ddd	0~233	only)
Л	C	ddd	0~255	Mapping to VM 10824 ~ 10831 (read
D	5			only)

	EK			PLC Connection Guide
В	А	ddd	0~255	Mapping to VM 10832 ~ 10863 (read only)
В	VM_bit	ddddd(dd)	1~99999(31)	Bit address (dd): 00~31.

MT8000 RS-232 / 9P D-SUB			-SUB	HUST CNC Controller
CO	DM1	COM2	COM3	RS232 Port
3	ΤХ	4 TX	7 TX	RXD
2	RX	6 RX	8 RX	TXD
5	GND	5 GND	5 GND	GND

Version	Date	Description of Changes
V1.00	Sep/22/2009	

# IAI X-SEL CONTROLLER

#### http://www.iai-robot.co.jp/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	IAI X-SEL Series		
Com port	RS485 4W		
Baud rate	9600	9600~19200	
Parity bit Even		Even, Odd, None	
Data Bits 7		7 or 8	
Stop Bits	1	1 or 2	
HMI Station No. 0			
PLC Station No.	0		

# **PLC Setting:**

Communication mode	
Mode Setting Switch	
Parity Check	
Sum Check	

Bit/Word	Device Type	Format	Range	Memo
	Servo_On_Off	d	1~8	Address 1~8 represent the
W				corresponding axis.
**				Write 1 means ON and 0 means
				OFF.
W	Servo_Origin	d	1~8	Address 1~8 represent the
				corresponding axis.
				Back to origin.
W	RunProgram	d	0	Data written indicates which
				program to run.
W	EndProgram	d	0	Data written indicates which
				program to stop.
W	SoftWareReset	d	0	Reset soft ware.

	WEINTEK PLC Connection Guide					
W	CurrentAxisPos	d	1~8	For reading current position. The		
				state of current axis is put in RW		
				axis*100.		
				i.e., for the state of axis 2,		
				2*100=200, so it is in RW200.		
W	PointMove	d	1~8	Address 1~8 represent the		
				corresponding axis. The data written		
				indicates which point to reach. Put		
				parameters ACC, DEC, SPEED in		
				axis*100+1, axis*100+2 and		
				axis*100+3 respectively.		
W	JoggingMove	d	1~8	Jogging. Address 1~8 represent the		
				corresponding axis. Put parameters		
				ACC, DEC, SPEED and Position in		
				axis*100+11, axis*100+12,		
				axis*100+13 and axis*100+14		
				respectively.		
W	AbsoluteMove	d	1~8	Jog to the set absolute coordinate.		
				Address 1~8 represent the		
				corresponding axis. Put parameters		
				ACC, DEC, SPEED and Position in		
				axis*100+21, axis*100+22,		
				axis*100+23 and axis*100+24		
				respectively.		
W	PointChange	d	1~8	To change the value of the point.		
				Address 1~8 represent the		
				corresponding axis. Put parameters		
				ACC, DEC, SPEED and Position in		
				axis*100+31, axis*100+32,		
				axis*100+33 and axis*100+34		
				respectively.		

Note: ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Every model of CPU is different; we suggest user to refer to PLC manual's Device List.



MT8000 RS232 9P D-SUB

Host RS232

CO	OM1	CC	DM2	CC	DM3	
3	TX	4	TX	7	TX	 RX
2	RX	6	RX	8	RX	 TX
5	GND	5	GND	5	GND	 GND



# **IDEC Micro**

IDEC Micro3, Micro3C, MicroSmart, OpenNet Controller series <a href="http://www.idec.com">http://www.idec.com</a>

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	IDEC Micro		Support Extend address mode
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7, 8	
Stop Bits	1	1	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	255 (for 1:1 connect)	0-255	255 or same as the PLC setting

Online Simulator	YES	
Extend address mode	YES	Don't set the PLC Station No.= 255

### **PLC Setting:**

Communication mode 9600,E,7,1(default), Use Computer Link Protocol

Bit/Word	Device Type	Format	Range	Memo
В	Х	ddd(o)	ddd=0~2047, (o)=0~7	Input(I)
В	Y	ddd(o)	ddd=0~2047, (o)=0~7	Output(Q)
В	М	ddd(o)	ddd=0~2047, (o)=0~7	Internal Relay(M)
W	RT	ddd	ddd=0~9999	Timer(T)
W	RC	ddd	ddd=0~9999	Counter(C)
W	D	ddd	ddd=0~9999	Data Register(D)





COM1

ΤX

RX

GND

3

2

5



COM3

ΤХ

RX

GND

7

8

5

MT8000 RS232

COM2

5 GND

ΤХ

RX

4

6

CPU port 1 or port2 RS-232 8P mini DIN Male

4

3

7

RXD

TXD

GND



8Pin mini DIN Female Pin



MT8000

 $RS485: Micro3 \ CPU \ Port, MicroSmart \ with \ FC4A-PC2 \ RS485 \ Communication \ Adapter$ 

N10000 K5-405	
8P mini DIN Male $876$	$\langle \rangle$
COM1 COM3	]]
1 RX- 6 Data- 2 RXD-	·
2 RX+ 9 Data+ 1 RXD+	
5 GND 5 GND 7 GND 8Pin mini D	DIN





RS485: Micro3C, OpenNet Controller Data Link Terminals,

MicroSmart with FC4A-PC3 RS485 Communication Adapter

MT8000 RS-485
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Data Link Terminals





Version	Date	Description of Changes
V1.20	Jun/19/2009	



# **INOVANCE H2U/H1U**

#### http://www.inovance.cn/

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	INOVANCE H2U/H1U		
Com port	RS485 4W		
Baud rate	9600	9600~19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0		

## **PLC Setting:**

Communication mode	
Mode Setting Switch	
Parity Check	
Sum Check	

# **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	000	0~377	Input Bits
В	Y	000	0~377	Output Bits
В	М	dddd	0~7999	Auxiliary Relay
В	SM	dddd	8000~9999	Special Auxiliary Relay
В	Т	ddd	0~255	Timer Relay
В	С	ddd	0~255	Counter Relay
W	TV	ddd	0~255	Timer Memory
W	CV	ddd	0~199	Counter Memory
DW	CV2	ddd	200~255	Counter Memory (32bit)
W	D	dddd	0~7999	Data Registers
W	SD	dddd	8000~9999	Special Data Register

Note: ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Every model of CPU is different, we suggest user to refer to PLC manual's Device List.



#### RS-485 4W:

#### MT800 Com1 RS-485]

#### H2U/H1U

#### RS-422 8P Din

9P D-SUB		RS-422 8P Din	
1	RX-	4	TX-
2	RX+	7	TX+
3	TX-	1	RX-
4	TX+	2	RX+
5	GND	3	GND

# **Intelligent Servo**

#### Intelligent Servo supports IDM640, IDM240.

http://www.techsoftmotion.com

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Intelligent Servo		
Com port	RS232		
Baud rate	9600	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	1		

### **PLC Setting:**

Communication mode	

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
W	Register_32bit	hhh	0~9999	32bit signed
DW	Register_H	hhh	0~9999	32bit Hex
W	UDP	hhh	hhh:0	Send UDP command
W	STOP	hhh	hhh:0	Send STOP command

## Wiring diagram:

MT8000 RS232 9P D-SUB Female

Servo(RS232)

CC	DM1	CO	DM2	CO	OM3		
3	ΤХ	4	TX	7	ТХ	3	RD
2	RX	6	RX	8	RX	 2	TD
5	GND	5	GND	5	GND	 5	GND



Version	Date	Description of Changes
V1.00	Nov/06/2009	

# Justfi controller

Justfi weighing instruments, Industrial Batching Controller supports XK31CB4, XK31CB6. <u>http://www.justfi.com</u>

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Justfi controller		
Com port	RS232		
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	1		

## **PLC Setting:**

Communication mode	

Bit/Word	Device Type	Format	Range	Memo	
W	Func	dd	dd:0~99	Read/Write	
DW	Func_DW	dd	dd:0~99	Read/Write	
W	RW	hhh	hhh:0	Weight (Read only)	
W	RF	hhh	hhh:0	Read result (Read only)	
W	RT	hhh	hhh:0	Read total (Read only)	
W	RG	hhh	hhh:0	Read prescription group	
W	RC	hhh	hhh:0	Circle	
W	RB	hhh	hhh:0	Read Status (Read only)	
W	MZ	hhh	hhh:0	Zero (Write only)	
W	MT	hhh	hhh:0	Tare (Write only)	
W	СТ	hhh	hhh:0	Clear tare (Write only)	
W	DT	hhh	hhh:0	Clear total (Write only)	
W	BB	hhh	hhh:0	Start (Write only)	
W	HB	hhh	hhh:0	Stop (Write only)	
W	BD	hhh	hhh:0	Discharge (Write only)	
W	WP1t				
		hhh	hhh:0	Read/Write Recipe	
	RP6F				



#### MT8000 RS232 9P D-SUB Female

#### CB4(RS232)

						_	
CO	OM1	CO	DM2	C	OM3		
3	ΤХ	4	ΤХ	7	TX		RD
2	RX	6	RX	8	RX		TD
5	GND	5	GND	5	GND		GND

Version	Date	Description of Changes
V1.00	Nov/04/2009	



# Kernel sistemi

Kernel systemi DMX 30 http://www.kernel.modena.it/

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Kernel sistemi		
Com port	RS232	RS485	
Baud rate	19200	9600	
Parity bit	Ν		
Data Bits	8		
Stop Bits	1		
PLC Station No.	1		Must match the PLC's port setting

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
W	D	hhhh	0~ffff	

# Wiring diagram:

N 9P	4T8000 RS23 D-SUB Fema	2 ale	Por 9P D-S	t2 RS232 SUB Female
COM1	COM2	COM3		
3 TX	4 TX	7 TX	2	RX
2 RX	6 RX	8 RX	3	TX
5 GND	5 GND	5 GND	5	GND

Version	Date	Description of Changes
V1.0.0	Feb/04/2010	



# **KEYENCE KV-10/16/24/40/80/Visual KV Series**

#### KEYENCE KV series, KV16~80

#### http://www.keyence.com/

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	KEYENCE KV-16		
Com port	RS232	RS232	Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	Even		Must match the PLC's port setting.
Data Bits	8		
Stop Bits	1		
PLC Station No.	0		Must match the PLC's port setting.

### **PLC Setting:**

Communication	None
mode	

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	RLY	dddbb <mark>0</mark>	0-17915 <mark>0</mark>	bb:0~15
В	DM_Bit	ddd(h)	0-65535f	
W	DM	ddd	0-65535	
W	ТМ	ddd	0-31	
W	Т	ddd	0-9999	
W	Timer_Curr	ddd	0-9999	Timer_Current
W	Timer_Preset	ddd	0-9999	
W	С	ddd	0-9999	
W	Counter_Curr	ddd	0-9999	Counter_Current
W	Counter_Preset	ddd	0-9999	

#### Precaution:

If you use the Relay(bit) register, Please place zero behind address.

For example, If you want to read Relay(bit)100, you just set the address as "1000".





#### RS232: CPU port

M	MT8000 RS-232 9P D-SUB				KEY	ENCE PLC	
СС	DM1	СС	DM2	CC	DM3	OP-	26486
3	ТΧ	4	ТΧ	7	ТХ	-2	RXD
2	RX	6	RX	8	RX	3	TXD
5	GND	5	GND	5	GND	-5	GND

#### MT8000 RS-232 9P D-SUB

MT8000	RS-232 9P D-	-SUB	KEYENCE PLC
COM1	COM2	COM3	RJ11
3 TX	4 TX	7 TX	4 RXD
2 RX	6 RX	8 RX	2 TXD
5 GND	5 GND	5 GND	3 GND



Version	Date	Description of Changes
V1.30	Apr/17/2009	



# **KEYENCE KV-5000 (Ethernet)**

#### http://www.keyence.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	KEYENCE KV-50	000 (Ethernet)	
Com port	Ethernet		
PLC IP	192.168.0.10		Must match the PLC's port setting.
TCP port	8501		Must match the PLC's port setting.
PLC Station No.	0		Must match the PLC's port setting.

### **PLC Setting:**

Communication	None
mode	

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	RLY	ddd(h)0	0-19999	
В	MR	ddd(h)	0-19999	
В	LR	ddd(h)	0-19999	
В	CR	ddd(h)	0-19999	
W	DM	ddd	0-1999	
W	ТМ	ddd	0-99	
W	СМ	ddd	0- 65535	
W	EM	ddd	0- 65535	
W	Т	ddd	0-999	
W	Timer_Curr	ddd	0-999	Timer Current
W	Timer_Preset	ddd	0-999	Timer Preset
W	С	ddd	0-999	
W	Counter_Current	ddd	0-999	
W	Counter_Preset	ddd	0-999	

Precaution:

If you use the RLY(bit) register, Please place zero behind address.

For example, If you want to read RLY 100, you just set the address as "1000".


### Wiring diagram:

#### Ethernet:

MT8000 Ethernet RJ45		Wire color		Ethernet Hub or Switch RJ45		
1	TX+	White/Orange		1	RX+	
2	TX-	Orange		2	RX-	
3	RX+	White/Green		3	TX+	
4	BD4+	Blue		4	BD4+	
5	BD4-	White/Blue		5	BD4-	
6	RX-	Green		6	TX-	
7	BD3+	White/Brown	]	7	BD3+	
8	BD3-	Brown		8	BD3-	



#### Ethernet: Direct connect (crossover cable)

MT80 RJ45	00 Ethernet	Wire color	_	KV-50 RJ45	00 Ethernet
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-

Version	Date	Description of Changes
V1.00	Dec/25/2009	

## **KEYENCE KV-700/1000/3000/5000 Series**

http://www.keyence.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	KEYENCE KV-1000		
Com port	RS232	RS232	Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	Even		Must match the PLC's port setting.
Data Bits	8		
Stop Bits	1		
PLC Station No.	0		Must match the PLC's port setting.

#### **PLC Setting:**

Communication mode	None
--------------------	------

Bit/Word	Device Type	Format	Range	Memo
В	RLY	ddd(h) <mark>0</mark>	0~19999	
В	MR	ddd(h)	0~19999	
В	LR	ddd(h)	0~19999	
В	CR	ddd(h)	0~19999	
В	DM_Bit	ddd(h)	0~19999	
W	DM	ddd	0-1999	
W	ТМ	ddd	0-99	
W	СМ	ddd	0~65535	
W	EM	ddd	0~65535	
W	Т	ddd	0-999	
W	Timer_Curr	ddd	0-999	Timer_Current
W	Timer_Preset	ddd	0-999	
W	С	ddd	0-999	

l	WEINTEK PLC Connection Guid							
	W	Counter_Curr	ddd	0-999	Counter_Current			
	W	Counter_Preset	ddd	0-999				

Precaution:

If you use the Relay(bit) register, Please place zero behind address.For example, If you want to read Relay(bit)100, you just set the address as "1000".

### Wiring diagram:

RS232: CPU port

MT8000 RS-232 9P D-SUB					KEY	YENCE PLC	
	COM1		COM2		COM3	OP-	26486
3	ТХ	4	ТХ	7	ТХ	2	RXD
2	RX	6	RX	8	RX	3	TXD
5	GND	5	GND	5	GND	5	GND

Version	Date	Description of Changes
V2.20	Jul/28/2009	

## Korenix 6550

http://www.korenix.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Korenix 6550/ 6520		Modbus protocol
COM port	Ethernet		
PLC station No.		0	
Port No.	502		

Bit/Word	Device type	Format	Range	Memo
W	3X	ddddd	1~65535	
W	4X	ddddd	1~65535	
W	5X	ddddd	1~65535	
W	6X	ddddd	1~65535	
В	0X	ddddd	1~65535	
В	1X	ddddd	1~65535	
В	3x_Bit	ddddd	1~65535	
В	4x_Bit	ddddd	1~65535	
В	6x_Bit	ddddd	1~65535	





### Wiring diagram:

#### Ethernet:

MT	8000 Ether	net Wire color	Ethernet Hub or	
RJ∠	45		Switch RJ45	
1	TX+	White/Orange	1 RX+	] <u>1</u> 8
2	TX-	Orange	2 RX-	
3	RX+	White/Green	3 TX+	RJ45
4	BD4+	Blue	4 BD4+	
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	

#### Ethernet: Direct connect (crossover cable)

МΊ	8000 Ether	net Wire color	Modbus TCP Device
RJ4	45		RJ45
1	TX+	White/Orange	3 RX+
2	TX-	Orange	6 RX-
3	RX+	White/Green	1 TX+
4	BD4+	Blue	4 BD4+
5	BD4-	White/Blue	5 BD4-
6	RX-	Green	2 TX-
7	BD3+	White/Brown	7 BD3+
8	BD3-	Brown	8 BD3-

Version	Date	Description of Changes
V1.61	Apr/17/2009	



## **Koyo CLICK**

#### KOYO CLICK PLC series

http://www.automationdirect.com

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	CLICK		
Com port	RS232		
Baud rate	38400	Communications Port1 (fixed)	Reference PLC Specification
Parity bit	Odd	Communications Port1 (fixed)	Reference PLC Specification
Data Bits	8	Communications Port1 (fixed)	Reference PLC Specification
Stop Bits	1	Communications Port1 (fixed)	Reference PLC Specification
PLC Station No.	1	Communications Port1 (fixed)	Reference PLC Specification

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	d(dd)	001 ~ 816	Input Status (Read Only)
В	Y	d(dd)	001 ~ 816	Output Status
В	С	dddd	$1 \sim 2000$	Control Bit
В	Т	ddd	1~500	Timer Status (Read Only)
В	СТ	ddd	1~250	Counter Status (Read Only)
В	SC	dddd	1 ~ 1000	System Control Bit (Read Only)
W	DS	dddd	$1 \sim 4500$	Data Registers
W	DD	dddd	1 ~ 1000	Data Registers (Double word)
W	DH	dddd	1~500	Data Registers
W	DF	dddd	1 ~ 500	Data Registers (Double word)
W	XD	d	0~8	Input Status Registers (Read Only)
W	YD	d	0~8	Output Status Registers
W	TD	ddd	1 ~ 500	Timer Current Values (Read Only)
W	CTD	444	1 250	Counter Current Values (Double
	CID	uuu	1~250	word/Read Only)
W	SD	dddd	1~1000	System Data Registers (Read Only)
W	TXT	dddd	1~1000	Text Data Registers

ddd: Decimal / hhh:Hexadecimal / ooo:Octal



### Wiring diagram:

#### KOYO CLICK PLC Com Port:

6 pin RJ12 Phone Type Jack – both ports

e
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Port 1 Pin Descriptions					
1	0V	Power (-) connection (GND)			
2	5V	Power (+) connection			
3	RXD	Receive data (RS-232)			
4	TXD	Transmit data (RS-232)			
5	NC	No connection			
6	0V	Power (-) connection (GND)			

	Port	2 Pin Descriptions
1	0V	Power (-) connection (GND)
2	5V	Power (+) connection
3	RXD	Receive data (RS-232)
4	TXD	Transmit data (RS-232)
5	RTS	Request to send
6	0V	Power (-) connection (GND)

#### **RS-232: KOYO CLICK PLC**

EasyView MT8000

#### 9P D-SUB

KOYO CLICK PLC RS-232 6

Pin RJ12 Jack

COM1[RS232]	COM2[RS232]	COM3[RS232]	
3 TX	4 TX	7 TX	3 RXD
2 RX	6 RX	8 RX	4 TXD
5 GND	5 GND	5 GND	1 GND

Version	Date	Description of Changes
V1.20	Oct/20/2009	Fixed the bit addresses X, Y and word addresses XD, YD are not able to read/write correctly.
V1.10	Apr/17/2009	

## **KOYO DIRECT**

KOYO DirectLogic series PLC DL05, DL06, DL105, DL205, DL305 and DL405 series

http://www.automationdirect.com

#### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	KOYO DIRECT		
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200, 38400	
Parity bit	Odd	Even, Odd, None	
Data Bits	8	7, 8	
Stop Bits	1	1	
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	1	1-90	

#### **PLC Setting:**

1. The PLC must not have a password.
2. PLC must be set for Full Duplex operation.
3. PLC must be set for No Hardware Handshaking.
4. The PLC must be set to use the 'K' Sequence Protocol.
5. Set the mode switch to the TERM mode
6. When using the D4-440 CPU, you must set the station number to 1.

Bit/Word	Device Type	Format	Range	Memo
В	Х	0000	$0 \sim 4000$	Input Bits
В	Y	0000	$0 \sim 4000$	Output Bits
В	С	00000	0~10000	Control Relays
В	Т	0000	0~1000	Timer Status Bits
В	СТ	0000	0~1000	Counter Status Bits
В	S	0000	$0 \sim 2000$	
В	SP	0000	$0 \sim 2000$	
В	GX	00000	0~10000	

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PLC Connection Guide

В	GY	00000	0~10000	
W	Timer	0000	0~1000	
W	Counter	0000	0~1000	
W	V	0000	0~77777	V Memory

#### Wiring diagram:

#### 1. CPU unit: DL05/DL06/DL105/DL230/DL240/DL250/DL350/DL450 RS232 port

	MT8000 RS232 9P D-SUB					KOYO Dire RS23 6P RJ12 r	ctLogic PLC 2 port phone jack
CC	DM1	С	OM2	С	OM3	I	J
3	ΤХ	4	ΤХ	7	ΤХ	3	RX
2	RX	6	RX	8	RX	4	ТХ
5	GND	5	GND	5	GND	1 (	GND



RJ12 6Pin Female

#### 2. CPU unit: DL06/DL250 CPU Port2 RS232

Ĺ	O DirectLogic PLC U RS232 Port2	KOY CP	MT8000 RS232 9P D-SUB				
¢	D-SUB Female	15P	COM3	OM2	C	OM1	С
<u> </u>	3 RX		7 TX	TX	4	ΤX	3
1	2 TX		8 RX	RX	6	RX	2
	7 GND		GND	GND	5	GND	5
	4 RTC						
	5 CTS						



**5P D-SUB Female** 

#### 3. CPU unit: DL06/DL250 CPU Port2 RS422

MT8000		KOYO DirectLogic PLC CPU R S422 Port2			
COM1	[RS-485] 4w	15P D-SUB	Female		
9P	D-SUB				
1	RX-		10	TX-	
2	RX+		9	TX+	
5	GND		7	GND	
3	TX-		6	RX-	
4	TX+		13	RX+	
			11	RTS+	
			14	CTS+	
			12	RTS-	
			15	CTS-	





Note: DL06/DL250 CPU Port2 include RS232 and RS422



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4. CPU unit: DL430/DL440/DL450 CPU unit Port0 RS232 KOYO DirectLogic PLC

MT8000 RS232					
	9P D-SUB				
COM1	COM2	COM3			
3 TX	4 TX	7 TX			
2 RX	6 RX	8 RX			
5 GND	5 GND	5 GND			

DL405 CPU RS232 Port0		
15P D-SUB Female		
	3 RX	
	2 TX	
	13 GND	
	1 YOP	
	7 CTS	
	2 YOM	
	4 ONLINE	
	14 GND	

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#### 5. CPU unit: DL430/DL440/DL450 CPU unit Port1 & DL350 CPU unit Port2 RS232

O DirectLogic PLC	KOY	MT8000 RS232					
105 CPU RS232 Port	DL305/4	9P D-SUB					
D-SUB Female	25P	OM3	C	OM2	C	OM1	C
3 RX		ΤX	7	ΤХ	4	ΤX	3
2 TX		RX	8	RX	6	RX	2
7 GND		GND	5	GND	5	GND	5
4 RTC							
5 CTS							



#### 6. CPU unit: DL430/DL440/DL450 CPU unit Port1 & DL350 CPU unit Port2 RS422 KOYO DirectLogic PLC MT8000

COM1[RS-485]4w

DL305/405 CPU RS422 Port 25P D-SUB Female

9P D-SUB

/	002			
1	RX-		16	TX-
2	RX+		14	TX+
5	GND		7	GND
3	TX-		10	RX-
4	TX+		9	RX+
			19	RTS+
			11	CTS+
			18	RTS-
			23	CTS-



7. CPU unit: DL450 CPU unit Port3 RS422

MT8000	KOYO DirectLogic PLC
	DL405 CPU RS422 Port3
COM1[RS-485]4w	25P D-SUB Female
9P D-SUB	

).	D-50D		
1	RX-	13	TX-
2	RX+	12	TX+
5	GND	7	GND
3	TX-	25	RX-
4	TX+	24	RX+

8. Communication unit: DL205 series D2-DCM and DL405 series D4-DCM RS232 MT8000 RS232 KOYO DirectLogic PLC

9P D-SUB

DL205/405 DCM RS232 Port 25P D-SUB Female

COM1	COM2	COM3		
3 TX	4 TX	7 TX		
2 RX	6 RX	8 RX		
5 GND	5 GND	5 GND		

3 RX
2 TX
7 GND
4 RTC
5 CTS

Version	Date	Description of Changes
V1.20	Dec/30/2008	



## **Koyo Ethernet**

#### KOYO DirectLogic series, model H0-ECOM100, H2-ECOM100 http://www.automationdirect.com

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	KOYO ETHERNET		
Com port	Ethernet, UDP/IP		
PLC Station No.	No need to set station no.	0	
TCP/IP port	28784		

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	GX	0000	0~3777	Global I/O
В	Х	0000	0~1777	Real Word Inputs
В	SP	0000	0~1777	Special Purpose Relays
В	GY	0000	0-3777	More Global I/O
В	Y	0000	0-1777	Real Word Outputs
В	С	0000	0-3777	Control Relays
В	S	000	0-1777	Stage Status Bits
В	Т	000	0-377	Timer Status Bits
В	СТ	000	0-377	Counter Status Bits
W	V	00000	0-41237	V-memory
W	CMM_32	hhh	001-200	GX, X, SP
W	CCM_33	hhh	001-340	GY,Y,C,S,Y,CT,V
W	CCM_31	hhhh	1-42A0	V

EB8000 device addresses range may different with PLC extended mode, please refer EB8000's addresses range as above.

ddd:Decimal, hhh:Hexadecimal, ooo:Octal



### Wiring diagram:

#### Ethernet port

MT8000 Ethernet Wire color		net Wire color	Ethernet Hub or	
RJ4	45		Switch RJ45	
1	TX+	White/Orange	1 RX+	
2	TX-	Orange	2 RX-	- I m
3	RX+	White/Green	3 TX+	
4	BD4+	Blue	4 BD4+	P
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	



MT8000 Ethernet Wire color			Ν	Iodbus TCP Device
RJ4	15		R	J45
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

# 1 8 RJ45

Version	Date	Description of Changes
V1.10	Jul/03/2009	



## Lenze

PLC Model No. : 9300/8200 series

Pass-through 2102IB fieldbus module:RS485(LECOM B)

http://www.lenze.de

#### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Lenze		
Com port	RS485	RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7,8	
Stop Bits	1	1, 2	
HMI Station No.	0	0-255	
PLC Station No.	1	0-255	

#### **PLC Setting:**

Communication mode	Same as the MT500 setting
	Same as the W11500 setting

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	CNB	ddd(dd)	0-999915	
W	CI	ddd	0-819200	
W	CD	ddd	0-819200	
W	CF	ddd	0-819200	
W	CNI	ddd	0-9999	integer
W	CND	ddd	0-9999	DWord
W	CNF	ddd	0-9999	DWord(float point)

### Wiring diagram:

#### EasyView MT8000 HMI

RS485 9 Pin D-SUB

#### Lenze 2102IB LECOM-B

RS485 Plug-in terminal 4-pole

COM1	COM3	
1 RX-	6 Data-	72 T/R(A)
2 RX+	9 Data+	71 T/R(B)



Version	Date	Description of Changes
V1.10	Apr/17/2009	

## **LIYAN EX series**

#### LIYAN PLC Ex/Ex1s/Ex1n/Ex2n series

http://www.liyanplc.com/

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Mitsubishi FX0n/FX2		
Com port	RS232	RS232	Must match the PLC's port setting.
Baud rate	9600	9600~115200	Must match the PLC's port setting.
Parity bit	Even	Even, Odd, None	Must match the PLC's port setting.
Data Bits	7	7,8	Must match the PLC's port setting.
Stop Bits	1	1,2	Must match the PLC's port setting.
HMI Station No.	0	0-255	Does not apply to this protocol.
PLC Station No.	0	0-255	Must match the PLC's port setting.

### **PLC Setting:**

Communication mode	9600,7,1,Even

Bit/Word	Device Type	Format	Range	Memo
В	Х	000	0-377	Input relay
В	Y	000	0-377	Output relay
В	М	ddd	0-9999	Internal bit memory
В	Т	ddd	0-255	Timer bit memory
В	С	ddd	0-255	Counter bit memory
W	TV	ddd	0-255	Timer register
W	CV	ddd	0~199	Counter Register
W	D	ddd	0-9999	data Register
W	CV2	ddd	200-255	Counter Register(Double word)
W	SD	ddd	8000-9999	Special data register





### Wiring diagram:

#### Ex,Ex1s,Ex1n,Ex2n series RS232

	MT8000 RS 9P D-SUI	232 B	LIYAN CPU R	Ex series S232 Port	8 7 6 5 4 3
COM1	COM2	COM3	or 1111111	JIII Feiliale	2 1
3 TX	4 TX	7 TX	 4	RXD	8Pin miniDin
2 RX	6 RX	8 RX	 7	TXD	Female
5 GND	5 GND	5 GND	 8	GND	

Version	Date	Description of Changes
V1.10	Aug/12/2009	



## LS GLOFA Cnet

LS GLOFA GM6/GM7 CPU port. G7L-CUEB / G6L-CUEB / G4L-CUEA / G3L-CUEA Cnet module.

http://www.lgis.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS GLOFA Cnet		
Com port	RS232	RS232/RS485 2W/4W	
Baud rate	9600	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7, 8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station no.	0	0~31	

### **PLC Setting:**

Communication mode	9600,N,8,1(default), Cnet protocol
Communication module	Applicable mode: 1 Dedicated communication

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	IX	hhhh(dd)	0~270F15	Input
В	QX	hhhh(dd)	0~270F15	Output
В	MX	ddddd	0~32767	Internal relay
W	MW	ddddd	0~32767	Data register
DW	MD	ddddd	0~16383	Double word

d:(Decimal) h:(Hexadecimal)

#### Wiring diagram:

RS-232:

MT8000 RS232 9P D-SUB

LG GLOFA GM CPU port RS232 9P D-SUB

CO	DM1	CC	DM2	CC	DM3	KS232 9P	D-SUB
3	TX	4	TX	7	ТХ	 4	RXD
2	RX	6	RX	8	RX	7	TXD
5	GND	5	GND	5	GND	5	GND



RS-232: Communication Module( G7L-CUEB / G6L-CUEB / G4L-CUEA / G3L-CUEA Cnet RS232 )

M 9P	T8000 R D-SUB	S23	2				LG GLOF	A GM
CO	OM1	CC	DM2	CO	DM3		RS232 9P	D-SUB
3	TX	4	ТХ	7	ТХ	_	 2	RXD
2	RX	6	RX	8	RX		 3	TXD
5	GND	5	GND	5	GND		 5	GND
							1	CD
							7	RTS
							8	CTS
							4	DTR
							6	DSR

RS485 4wire: Communication Module( G7L-CUEC / G6L-CUEC / G4L-CUEA / G3L-CUEA Cnet RS422 )

#### MT8000

RS422 port

COM1[RS-485]4w

9P D-SUB

1 RX-	SDA
2 RX+	SDB
3 TX-	RDA
4 TX+	RDB
5 GND	GND

Version	Date	Description of Changes
V1.60	Apr/16/2009	



## LS GLOFA GM3467 (LOADER)

LS GLOFA series GM3, GM4, GM6, GM7 CPU port

http://www.lgis.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS GLOFA GM3467(LOADER)		
Com port	RS-232		
PLC Station no.			
Baud rate	38400		
Data bit	8		
Parity bit	Ν		
Stop bit	1		

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	MX	ddddd	0~524272	
р	IV		00000 62762	00.0.0 ~63.7.63
D	IX	dd.D.dd	00000~03/03	(dd.D.dd)
D	OY	dd D dd	00000 63763	00.0.0 ~63.7.63
D	QA	dd.D.dd	.uu 00000~03703	(dd.D.dd)
W	MW	dddd	0~32767	
W	MD	ddddd	0~16383	

LS GLOFA series

9P D-SUB Female

**RS-232** 

#### Wiring diagram:

RS-232:

MT8000 RS232 9P D-SUB Female

COM1	COM2	COM3		
3 TX	4 TX	7 TX	 2	RD
2 RX	6 RX	8 RX	 3	TD
5 GND	5 GND	5 GND	5	GND



Version	Date	Description of Changes
V1.20	Feb/11/2010	Modify the addressing



## LS MASTER-K Cnet

LS MASTER-K series: K80S, K200S, K300S, K1000S http://www.lgis.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS MASTER-K Cnet		
Com port	RS232	RS232/RS485	Must match the PLC's port setting.
Baud rate	38400	9600, 19200, 38400	Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	8	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	0	0-31	Must match the PLC's port setting.

Online Simulator	YES	
Extend address mode		

#### **PLC Setting:**

Communication mode	<b>38400, None, 8, 1</b>
--------------------	--------------------------

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Р	ddd(h)	0~255F	I/O Relay (P)
В	K	ddd(h)	0~255F	Keep Relay (K)
В	М	ddd(h)	0~255F	Auxiliary Relay (M)
В	L	ddd(h)	0~255F	Link Relay (L)
В	F	ddd(h)	0~255F	Special Relay (F)
W	TV	ddd	0~255	Timer Present Value
W	CV	ddd	0~255	Counter Present Value
W	D	dddd	0~9999	Data Register (D)

d: Decimal h: Hexadecimal



### Wiring diagram:

MT8000 RS232							CPU port Cnet I/F
9P D-SUB					UB		RS232
С	OM1	C	OM2	C	OM3		9P D-SUB Female
3	ΤX	4	ΤХ	7	ΤX		4 RX
2	RX	6	RX	8	RX		7 TX
5	GND	5	GND	5	GND		5 GND

If connect with Cnet module please refer Cnet module's document.

Version	Date	Description of Changes
V1.00	Dec/30/2008	

## LS MASTER-K10S1

LS MASTER-K10S1

http://www.lgis.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS MASTER-K10S1		
Com port	RS232	RS232/RS485	Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	None	None	Must match the PLC's port setting.
Data Bits	8	8	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	0		Must match the PLC's port setting.

### **PLC Setting:**

Communication	9600, None, 8, 1
mode	
Select	

Bit/Word	Device Type	Format	Range	Memo
В	Р	ddd(h)	0~255F	I/O Relay (P)
В	Κ	ddd(h)	0~255F	Keep Relay (K)
В	М	ddd(h)	0~255F	Auxiliary Relay (M)
В	L	ddd(h)	0~255F	Link Relay (L)
В	F	ddd(h)	0~255F	Special Relay (F)
В	Т	ddd	0~255	Timer (T)
В	С	ddd	0~255	Counter (C)
W	TV	ddd	0~255	Timer Present Value
W	CV	ddd	0~255	Counter Present Value

	EK			PLC Connection Guid	le
W	D	dddd	0~9999	Data Register (D)	

d: Decimal h: Hexadecimal

### Wiring diagram:

#### MT8000 RS232

#### CPU port RS232

9P D-SUB

9P D-SUB Female

CC	DM1	CC	DM2	CO	DM3	
3	ΤХ	4	ΤХ	7	ΤХ	2 RX
2	RX	6	RX	8	RX	3 TX
5	GND	5	GND	5	GND	5 GND

Version	Date	Description of Changes
V1.00	Sep/08/2009	



## LS MASTER-K300S CPU

#### LS MASTER-K series: K80S, K120S, K200S, K300S, K1000S http://www.lgis.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LG MASTER-K300S		
Com port	RS232	RS232/RS485	Must match the PLC's port setting.
Baud rate	38400	9600, 19200, 38400	Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	8	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	0	0-31	Must match the PLC's port setting.

Online Simulator	YES	
Extend address mode		

### **PLC Setting:**

Communication	38400, None, 8, 1
mode	

Bit/Word	Device Type	Format	Range	Memo
В	Р	ddd(h)	0~255F	I/O Relay (P)
В	Κ	ddd(h)	0~255F	Keep Relay (K)
В	М	ddd(h)	0~255F	Auxiliary Relay (M)
В	L	ddd(h)	0~255F	Link Relay (L)
В	F	ddd(h)	0~255F	Special Relay (F)
W	TV	ddd	0~255	Timer Present Value
W	CV	ddd	0~255	Counter Present Value
W	D	dddd	0~9999	Data Register (D)

d: Decimal h: Hexadecimal

#### Wiring diagram:

#### MT8000 RS232 CPU port RS232 9P D-SUB 9P D-SUB Female COM2 COM1 COM3 3 TX 7 2 RX 4 TX ΤX 8 RX 2 RX 6 RX 3 TX 5 GND 5 GND 5 GND 5 GND

Version	Date	Description of Changes
V1.10	Dec/30/2008	



## LS XGB/XGT

LS XGB/XGT Series http://www.lgis.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS XGB/XGT		
Com port	RS232	RS232/RS485	Must match the PLC's port setting.
Baud rate	115200	9600~115200	Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7, 8	Must match the PLC's port setting.
Stop Bits	1	1	Must match the PLC's port setting.
HMI Station No.	0		
PLC Station No.	1	0-31	Must match the PLC's port setting.

Bit/Word	Device Type	Format	Range	Memo
В	Р	ddd(h)	0~127F	I/O device_2,048 points
В	М	ddd(h)	0~255F	Internal device_4,096 points
В	L	dddd(h)	0~1279F	Communication device_20,480 points
В	K	dddd(h)	0~2559F	Preservation device_4,096 points
В	F	ddd(h)	0~255F	Special device_4,096 point
В	Т	ddd	0~255	Timer device_256 point
В	С	ddd	0~255	Counter device_256 point
В	S	ddd(dd)	0~127(99)	Relay for step control
В	D_Bit	dddd(h)	0~5120F	Data register_Bit expression (D0000.0)
			dh:0~3f	XGK-CPUE:hh(0~1f)
В	U_Bit	dh.dd(h)	dd:0~31	
			(h):0~f	
W	D	dddd	0~5119	Data register_5120 words
W	U	d(dd)	0~7(0~31)	Analog data register_256 words
W	Ν	dddd	0~3935	Communication data register_3,936 words

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W	Ζ	ddd	0~127	Index register_128 words	
W	Т	ddd	0~255	Timer current value register_256 words	
W	С	ddd	0~255	Counter current value register_256 words	

d:Decimal h:Hexadecimal

#### Wiring diagram:

#### RS-232:



Version	Date	Description of Changes
V1.30	Apr/17/2009	



## LS XGB/XGT FEnet (Ethernet)

LS XGB/XGT with XBL-EMTA

http://www.lgis.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS XBB/XGT FEnet		
Com port	Ethernet		
PLC Station no.	0	0~255	
TCP/IP port	2004		

#### **PLC Setting:**

Communication mode FEnet Potocol

Bit/Word	Device Type	Format	Range	Memo
В	Р	ddd(h)	0~127F	I/O device_2,048 points
В	М	ddd(h)	0~255F	Internal device_4,096 points
В	L	dddd(h)	0~1279F	Communication device_20,480 points
В	K	dddd(h)	0~2559F	Preservation device_4,096 points
В	F	ddd(h)	0~255F	Special device_4,096 point
В	Т	ddd	0~255	Timer device_256 point
В	С	ddd	0~255	Counter device_256 point
В	S	ddd(dd)	0~127(99)	Relay for step control
В	D_Bit	dddd(h)	0~5120F	Data register_Bit expression (D0000.0)
			dh:0~3f	
В	U_Bit	dh.dd(h)	dd:0~31	
			(h):0~f	
W	D	dddd	0~5119	Data register_5120 words
W	U	d(dd)	0~7(0~31)	Analog data register_256 words
W	Ν	dddd	0~3935	Communication data register_3,936 words

	EK			PLC Connection Guide
W	Z	ddd	0~127	Index register_128 words
W	Т	ddd	0~255	Timer current value register_256 words
W	С	ddd	0~255	Counter current value register_256 words

d:(Decimal) h:(Hexadecimal)

### Wiring diagram:

#### Ethernet:

MT800	0 Ethernet	Wire color	Etherne	t Hub or Switch	
RJ45			RJ45		
1	TX+	White/Orange	1	RX+	1 8
2	TX-	Orange	2	RX-	
3	RX+	White/Green	3	TX+	RJ45
4	BD4+	Blue	4	BD4+	
5	BD4-	White/Blue	5	BD4-	
6	RX-	Green	6	TX-	
7	BD3+	White/Brown	7	BD3+	
8	BD3-	Brown	 8	BD3-	

#### Ethernet: Direct connect (crossover cable)

MT800	0	Wire color		TCP Device	
Etherne	t RJ45			RJ45	
1	TX+	White/Orange	]	3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-

Version	Date	Description of Changes
V1.20	Apr/17/2009	

## LS XGL-CH2A Cnet

## LS XGT series communication module XGL-CH2A

http://www.lgis.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS XGL-CH2A Cnet		
Com port	RS232	RS232/RS485 2W/4W	
Baud rate	19200	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7, 8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station no.	0		

### **PLC Setting:**

Communication mode	

Bit/Word	Device Type	Format	Range	Memo
В	Р	dddd(h)	0~2047F	I/O device
В	М	dddd(h)	0~2047F	Internal device
В	L	dddd(h)	0~2047F	Communication device
В	К	dddd(h)	0~2047F	Preservation device
В	F	dddd(h)	0~2047F	Special device( write available from 1025)
В	Т	dddd	0~2047	Timer device
В	С	dddd	0~2047	Counter device
В	S	ddd(dd)	0~127(99)	Relay for step control
В	D_Bit	dddd(h)	0~19999F	Data register_Bit expression (D0000.0)
В	U_Bit	dh.dd(h)	hh:0~3f, dd:0~31 (h):0~f	XGK-CPUE : hh(0~1f)
W	D	dddd	0~19999	Data register
W	U	hh(dd)	0~3f(0~31)	Analog data register XGK-CPUE : hh(0~1f)
W	Ν	dddd	0~21503	Communication data register
W	Z	ddd	0~127	Index register_128 words
W	Т	dddd	0~2047	Timer current value register
W	С	dddd	0~2047	Counter current value register

	EK			PLC Connection Guide
Bit/Word	Device Type	Format	Range	Memo
W	R	ddddd	0~32767	
W	ZR	ddddd	0~32767	
W	TS	dddd	0~2047	Setup value
W	CS	dddd	0~2047	Setup value

d:(Decimal) h:(Hexadecimal)

#### Wiring diagram:

#### RS-232:

MT8000 R 9P D-SUB	8232	XGL-CH2A CH1	
COM1	COM2	COM3	RS232 9P D-SUB
3 TX	4 TX	7 TX	2 RXD
2 RX	6 RX	8 RX	3 TXD
5 GND	5 GND	5 GND	5 GND

#### RS485 4wire:

#### MT8000

#### COM1[RS-485]4w

CH2 5P terminal.

XGL-CH2A

9P D-SUB

1 RX-	TX-
2 RX+	TX+
3 TX-	RX-
4 TX+	RX+
5 GND	GND

Version	Date	Description of Changes
V1.20	Nov/30/2009	



## LS XGL-EFMT Fenet (Ethernet)

LS XGT series XGL-EFMT Ethernet module.

http://www.lgis.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS XGL-EFMT FEnet (Et		
Com port	Ethernet		
Port no.	2004		
HMI Station No.	0		
PLC Station no.	0		

### **PLC Setting:**

Communication mode	

D'4/West	DeriveTrees	E	Denes	Mana
Bit/Word	Device Type	Format	Range	Memo
В	Р	dddd(h)	0~2047F	I/O device
В	М	dddd(h)	0~2047F	Internal device
В	L	dddd(h)	0~2047F	Communication device
В	К	dddd(h)	0~2047F	Preservation device
В	F	dddd(h)	0~2047F	Special device( write available from 1025)
В	Т	dddd	0~2047	Timer device
В	С	dddd	0~2047	Counter device
В	S	ddd(dd)	0~127(99)	Relay for step control
В	D_BIT	dddd(h)	0~32767F	Data register_Bit expression (D0000.0)
В	U_BIT	dh.dd(h)	dh:0~3f, dd:0~31 (h):0~f	XGK-CPUE : hh(0~1f)
W	D	dddd	0~19999	Data register
W	U	hh(dd)	0~3f(0~31)	Analog data register XGK-CPUE : hh(0~1f)
W	Ν	dddd	0~21503	Communication data register
W	Z	ddd	0~127	Index register_128 words
W	Т	dddd	0~2047	Timer current value register

WEINTEK PLC Connection Guide						
Bit/Word	Device Type	Format	Range	Memo		
W	С	dddd	0~2047	Counter current value register		
W	R	ddddd	0~32767			
W	ZR	ddddd	0~32767			

d:(Decimal) h:(Hexadecimal)

### Wiring diagram:

#### **Ethernet:**

MT8000 Ethernet Wire color RJ45			Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1 RX+	
2	TX-	Orange	2 RX-	RJ45
3	RX+	White/Green	3 TX+	
4	BD4+	Blue	4 BD4+	
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	

#### **Ethernet: Direct connect (crossover cable)**

MT RJ4	8000 Ethernet 5	Wire color	XGL-EFMT RJ45		
1	TX+	White/Orange	3	RX+	
2	TX-	Orange	6	RX-	
3	RX+	White/Green	1	TX+	
4	BD4+	Blue	4	BD4+	
5	BD4-	White/Blue	5	BD4-	
	WE!NTEK			Р	LC Connection Guide
---	---------	-------------	---	------	---------------------
6	RX-	Green	2	TX-	
7	BD3+	White/Brown	7	BD3+	
8	BD3-	Brown	8	BD3-	

Version	Date	Description of Changes
V1.20	Nov/30/2009	



## LS XGT/XGK CPU DIRECT

#### LS XGT/XGK CPU RS232 port

http://www.lgis.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	LS XGT/XGK CPU DIRE	СТ	
Com port	RS232	RS232/RS485	
Baud rate	19200	9600~115200	
Parity bit	None	Even, Odd, None	
Data Bits	8	7, 8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station no.	0		

## **PLC Setting:**

Communication mode	

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Р	dddd(h)	0~2047F	I/O device
В	М	dddd(h)	0~2047F	Internal device
В	L	dddd(h)	0~2047F	Communication device
В	К	dddd(h)	0~2047F	Preservation device
В	F	dddd(h)	0~2047F	Special device( write available from 1025)
В	Т	dddd	0~2047	Timer device
В	С	dddd	0~2047	Counter device
В	S	ddd(dd)	0~127(99)	Relay for step control
В	D_Bit	dddd(h)	0~19999F	Data register_Bit expression (D0000.0)
В	U_Bit	hhdd(h)	hh:0~3f, dd:0~31 (h):0~f	XGK-CPUE : hh(0~1f)
W	D	dddd	0~19999	Data register
W	U	hh(dd)	0~3f(0~31)	Analog data register XGK-CPUE : hh(0~1f)
W	Ν	dddd	0~21503	Communication data register
W	Z	ddd	0~127	Index register_128 words
W	Т	dddd	0~2047	Timer current value register
W	С	dddd	0~2047	Counter current value register
W	R	ddddd	0~32767	

	EK			PLC Connection Guide
W	ZR	ddddd	0~32767	
W	TS	dddd	0~2047	Setup value
W	CS	dddd	0~2047	Setup value

d:(Decimal) h:(Hexadecimal)

## Wiring diagram:

RS-232:

MT8000 RS232 9P D-SUB

XGT main unit RS232 9P D-SUB

CO	OM1	CC	DM2	CC	OM3		
3	TX	4	ТХ	7	ТХ	2	RXD
2	RX	6	RX	8	RX	 3	TXD
5	GND	5	GND	5	GND	 5	GND

Version	Date	Description of Changes
V1.00	Nov/30/2009	

## Master (Master-Slave Protocol)

To connect MT8000 with MT500, MT500 has to set as [Slave].

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Master (Master-Slave		
	Protocol)		
Com port	RS232		
Baud rate	115200	38400, 115200	
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		
Parameter 1	MT500 PLC ID	Use PLCAddress	Wiew.exe find PLC ID.

COM :	DOM 1	×	Timeout (sec) :	2.0
Saud rate :	115200	2	Turn around delay (ms) :	0
Data bits :	8.845	8	Send AOK delay (ms) :	0
Parity :	Even	9	Parameter 1 :	10
Stop bits :	1 Bit	~	Parameter 2 :	0
			Parameter 3 :	0

## **PLC Setting:**

Communication mode	MT500 Multiple HMI set Slave
--------------------	------------------------------

LC General In	dicator Security	Editor	Handware Attor		
PLC type :	MITSUBISHI F	00a/F9C2	×		
HMI model :	MT510T/MT50	8T (640 ×	480)		
FLC I/F port :	RS-485.4W	v	Band rate :	9600	v
Data bits :	7 Bits	Y.	Panity :	Even	×.
Stop bits :	1 Bit	×.			
Parameter 1 :	0	1995 (A	Tum around delay :	0	
Parameter 3 :	0		Parameter 4 :	0	
Parameter 5 :	0		Parameter 6 :	0	
HMI station no. :	0		PLC retation no. :	0	×
Multiple HMI :	Save	~	HMI-HMI link speed :	115200	~
Connect I/F :	Seciel	*			
Local	Peddress : 0	• 0	- 0 - 0		
Server 1	0 : mubbe ¶	· 0	- 0 - 0		
Subnete	ork mask : 🕕	.0	.0.0		
Default zouts I	P address : []	. 0	- · · · · ·		
PLC time out con	fant (sec) : 3.0		PLC block pack :	0	~

NAMES OF A DESCRIPTION.						- 2
LC/Addecs Type ID	BitAwlord	Addess Type	Addressing Format	Max	Min	TR
ITSUBISHI RADARA2	PLC10=10	a gental Versio		Sec.	1000	11
	Direktion ()	(LB	333	9999	0	21
	DAPLC)	X	000	3077	0	н
	(BRPLC)	TX:	900	377	0	11
	BRPLC]	M	didd	99999	0	39
	BRPLC)	(T.	ddd	255	0	31
	BAPLC)	[C	ddd	255	0	31
	WordPIMI]	EW.	didd	2003	0	11
	Word(PLC)	TV .	-000	255	0	11
0	WordPLCI	I CV	ddd	199	0	11
1.	WordPLC:	0	ddd	9999	0	11
2	[D/w/ord/PLC]	CV2	ddd	25	200	ы
as	WordPLC	SD	didd	99999	8000	11
21	WordPHMI1	Flwf	ddd	32767	0	31
20	849-041	PVD1	dddH	2047	0	21
40	BRHMI)	I RB	(000)	2047	0	н
41	Word[HM]	ERW.	ddd	(85)8	0	3.1
60	[BRHM]	EML/IB	dddhi	40358	D	11
61	BAHMI	Mt_LB	ddd	9999	0	1
00	WordHMI:	Ma RW	ddd	888.35	ů.	1.5



## **Device address:**

Bit/Word	MT500	MT8000	Range	Memo
В	Ms_RB	RW_Bit	ddd:0~4095 (h): 0~f	
В	Ms_LB	LB	dddd:0~9999	
W	Ms_RW	RW	ddd:0~65535	
W	Ms_LW	LW	ddd:0~9999	

Version	Date	Description of Changes	
V1.00	Dec/30/2008		



## Memobus (Yaskawa MP Series Controllers)

YASKAWA MP2200, MP2300, MP2300S, MP9xx communication module

http://www.yaskawa.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Memobus		
Com port	RS485/Ethernet	RS232/RS485 2w/4w, Ethernet	Must match the PLC's port setting.
Baud rate	19200	9600~57600	Must match the PLC's port setting.
Parity bit	Even		Must match the PLC's port setting.
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		Dose not apply to this protocol.
PLC Station No.	1	1-31	Must match the PLC's port setting.
TCP Port No.	502	default	Ethernet Module only

#### **PLC Setting:**

Communication mode	MEMOBUS, Slave, RTU
Select	

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
D	MB_1	ddddh	dddd:0~9999,	MB 0~9999
В			h: 0~f	
р	MB_2	ddddh	dddd:10000~65535,	MB 10000~65535
D			h: 0~f	
В	IB	hhhh	hhhh : 0~A7FF	Read only
W	IW	hhhh	hhhh : 0~A7FF(8FFF)*	Read only
DW	IL	hhhh	hhhh : 0~A7FE(8FFE)*	Read only
F	IF	hhhh	hhhh : 0~A7FE(8FFE)*	Read only
W	MW	ddddd	ddddd:0~65534	Holding Register
DW	ML	ddddd	ddddd:0~65533	Double word
F	MF	ddddd	ddddd:0~65533	Floating point
· When cont	pact via Etherne	at interface the	max range of IW II and I	E would be restricted

\*: When connect via Ethernet interface the max range of IW, IL and IF would be restricted.



#### Wiring diagram:

#### 1. RS-232: 217IF-01, 218IF-01

#### MT8000 RS232

#### 217IF-01 RS232 9P D-SUB Female

COM1	COM2	COM3	]	_
3 TX	4 TX	7 TX		3 RX
2 RX	6 RX	8 RX		2 TX
5 GND	5 GND	5 GND		7 GND

2. RS-485 2w: 217IF-01

# MT8000 RS-485 2w 217IF-01 RS422/485 COM1 COM3 14P connector 1 RX 6 Data 2 RX+ 9 Data+ 5 GND 5 GND

#### 3. RS485 4w: 217IF-01

MT8000 RS-485 2w		217IF-01 RS422/485
COM1		14P connector
1	RX-	2 TX-
2	RX+	1 TX+
3	TX-	4 RX-
4	TX+	3 RX+
5	GND	14 GND

#### 4. Ethernet:

MT8000 Wire co		Wire color	Ethernet Hub or
Eth	ernet RJ45		Switch RJ45
1	TX+	White/Orange	1 RX+
2	TX-	Orange	2 RX-
3	RX+	White/Green	3 TX+
4	BD4+	Blue	 4 BD4+
5	BD4-	White/Blue	 5 BD4-
6	RX-	Green	6 TX-
7	BD3+	White/Brown	7 BD3+
8	BD3-	Brown	8 BD3-





#### Ethernet: Direct connect (crossover cable)

MT8000 W		Wire color		Ethernet Module RJ45
Eth	ernet RJ45			
1	TX+	White/Orange		3 RX+
2	TX-	Orange		6 RX-
3	RX+	White/Green		1 TX+
4	BD4+	Blue		4 BD4+
5	BD4-	White/Blue	,	5 BD4-
6	RX-	Green		2 TX-
7	BD3+	White/Brown		7 BD3+
8	BD3-	Brown		8 BD3-

#### **PLC Ethernet Setting:**

1. User MPE720 program software, Open Module Configuration. Double click "218IFA".



In Transmision Parameters input MP2300S IP address, subnet Mask, Gateway IP.
 In Connection Parameter, CNO -1 input: Local Port=502, Node IP address=000.000.000, 000, Node Port=00000, Connect Type=TCP, Protocol Type=MEMOBUS, Code=RTU.



#### PLC Connection Guide

218IFA MP2300S Online Local	
PT#: 2 CPU#: 1 RACK#01 Slot #0	0 CIR#01 0000-07FF
Transmission Parameters Status	
- Transmission Parameters	
IP Address : 192 ↔ 168 ↔ 1 ↔ 1 ↔ (0-255)	Inition
Submet Mask 255 255 255 0 (0-255)	
Generate Pathers : 0 = 0 = 0 = 0 = 0 = (0 255) Detail Definition	1
Connection Parameter	
Message Communication	
Easy setting It is possible to following parameter setting easily that communicate the message.	
CNO Local Node IP Address Node Connect Protocol	Code Detail
Port Port Type Type	PTIL P Caring
	VIO V Setting
03	
	<b>T T</b>
Cannot the overlap to local station port number used by the communicate the L/O message.	
I/O Message Communication	
C Enable	
Fact rating 1 the particle to at apply that appropriate the 1/0 means	1
Data undate timing low set Scan	
Read/ Local Node IP Address Node Connect Protocol	Code –
Read	
Write	<b>T T</b>
Head register number data size Head register number (	data size
MP23005 input disable IW0000 4 W - Hold register(MW) - 00000 4	Node eminment
□ output disable OW0004 4 W-> Hold register(MW) → 00004 4	

Engineering Manager
ile Edit Yiew Yindow
Task let Tas
Inclusive Test       Test P23005       Offline Local         PT#:-CPUH:-       PRACKNOILKK       Test PARCKNOILKK         PT#:-CPUH:-       PRACKNOILKK       PRACKNOILKK         Communication Type       MEDMITEDITEK-II (32 Byte Bode) >         U/U       Waster/Slave       Master         Wy station address       Off         Transission Speed       JOMps         Mod       Transission Speed         JOMps       Y         Mod       Transission Speed         Signation       Work Vised         Neeber of retry to slaves       I         Nucker of slaves       I         Slave synchronous function       Diseble
Motion End Register OFFF Details MECHATROLINK Status
SVB: Network servo control function.
r Help, press YI

3. Close all dialogs and save to MP2300S.



Note:

1. Only CNO 01 able to auto communication with one HMI. other CNO need create ladder program to communication.

Version	Date	Description of Changes
V1.40	Apr/21/2009	

## **Memory Map**

Memory Map protocol is similar to IBM 3764R communication protocol. The MT8000 reserves 512 words of Data memory for use with this protocol. The MT8000 must update the values in these words. The MT8000 uses the words to display data and control parts status on its screen. When touch actions are taken, data is sent to the other once, and then update the memory in it. The MT8000 is <u>always</u> responsible for updating the Data memory.

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Memory Map		
Com port	RS232	RS232, RS485 4W, 2W	RS232 default
Baud rate	115200	9600~115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8		
Stop Bits	1		

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	MB	ddd(h)	ddd:0~9999 (h): 0~F	
W	MW	ddd	ddd:0~9999	

The MB and MW are using same area to store data.

MW  $0 = MB \ 000000 \sim MB \ 0000F$ 

MW 1 = MB 000100 ~ MB 0001F

#### Wiring diagram:

RS-232:

MT8000 RS232	MT8000 RS232		
9P D-SUB	9P D-SUB		
2 RX		3 TX	
3 TX		2 RX	
5 GND		5 GND	



RS-485 2W:

MT8000 RS485	MT8000 RS485
9P D-SUB	9P D-SUB
1 RX-	1 RX-
2 RX+	2 RX+
5 GND	5 GND

RS-485 4W:

MT8000 RS485 9P D-SUB	MT8000 RS485 9P D-SUB	
1 RX-		3 TX-
2 RX+		4 TX+
3 TX-		1 RX-
4 TX+		2 RX+
5 GND		5 GND

#### NOTE :

For Memory map information, please refer user manual [chapter 31 Memory Map communication].

## **Driver Version:**

Version	Date	Description of Changes
V1.00	Mar/19/2009	

PLC Connection Guide



## **MITSUBISHI A1S**

#### MITSUBISHI A1S

#### http://www.mitsubishi-automation.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI A1S		
Com port	RS232		
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

## **PLC Setting:**

Communication	9600, Odd, 8, 1
mode	

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhhh	0-ffff	Input Relay
В	Y	hhhh	0-ffff	Output Relay
В	М	ddddd	0-65535	Auxiliary Relay
В	В	hhhh	0-ffff	
В	F	ddddd	0-65535	
W	TV	ddddd	0-65535	Timer Memory
W	CV	ddddd	0-65535	Counter Memory
W	D	ddddd	0-65535	Data Register
W	W	hhhh	0-ffff	
W	R	ddddd	0-65535	

d: Decimal h: Hexadecimal



## Wiring diagram:

Use the RS422 to RS232 PLC programming cable (show as follows)

#### MITSUBISHI AnS CPU



Mitsubishi	PLC	MT8000
RS-422	programming Cable	COM1 RS232
DB25 Male		9P D-SUB Female

2	RX+	 RD	<u> </u>	3	TD
3	TX+	TD		2	RD
4	DSR+	 GND		5	GND
7	GND	RTS		8	CTS
15	RX-	CTS		7	RTS
16	TX-				
17	DSR-				



Version	Date	Description of Changes
V1.00	Sep/18/2009	



## MITSUBISHI A2A

#### MITSUBISHI A2A

http://www.mitsubishi-automation.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI A2A		
Com port	RS232		
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

## **PLC Setting:**

Communication	9600, Odd, 8, 1
mode	

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhhh	0-270f	Input Relay
В	Y	hhhh	0-270f	Output Relay
В	М	dddd	0-9999	Auxiliary Relay
В	В	hhhh	0-ffff	
В	F	ddddd	0-65535	
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-255	Counter Memory
W	D	dddd	0-9999	Data Register
W	W	hhhh	0-ffff	
W	R	ddddd	0-65535	

d: Decimal h: Hexadecimal



## Wiring diagram:

Use the RS422 to RS232 PLC programming cable (show as follows)

#### MITSUBISHI AnS CPU



Mitsubishi		PLC	MT8000				
RS-422		programming Cable	COM1 RS232				
DB25	5 Male	_			9P D-8	SUB Female	_
2	RX+		RD		3	TD	
3	TX+		TD		2	RD	
4	DSR+		GND		5	GND	
7	GND		RTS		8	CTS	
15	RX-		CTS		7	RTS	
16	TX-						-
17	DSR-						



Version	Date	Description of Changes
V1.00	Aug/12/2009	



## MITSUBISHI A2US

#### MITSUBISHI A2US

#### http://www.mitsubishi-automation.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI A2US		
Com port	RS232		
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

#### **PLC Setting:**

Communication	9600, Odd, 8, 1
mode	

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhhh	0-270f	Input Relay
В	Y	hhhh	0-270f	Output Relay
В	М	dddd	0-9999	Auxiliary Relay
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-255	Counter Memory
W	D	dddd	0~9999	Data Register

d: Decimal h: Hexadecimal

#### Wiring diagram:

Use the RS422 to RS232 PLC programming cable (show as follows)



#### MITSUBISHI AnS CPU



Mits	ubishi	PLC	PLC			MT8000		
RS-422		progra Cable	programming Cable			COM1 RS232		
DB2	5 Male	Cable			9P D-S	SUB Female		
2	RX+	]	RD		3	TD		
2	$TV_{\perp}$		TD		n	DD		

2	KA+	RD	3	ID
3	TX+	TD	2	RD
4	DSR+	 GND	5	GND
7	GND	RTS	8	CTS
15	RX-	CTS	7	RTS
16	TX-			
17	DSR-			

Version	Date	Description of Changes
V1.00	Mar/20/2009	

# MITSUBISHI A3N/A1SH

#### MITSUBISHI A3N/A3A/A1SH/A2SH

#### http://www.mitsubishi-automation.com/

#### **HMI Setting:**

Parameters	Recommend	Option	Notes	
PLC type	MITSUBISHI A3N/A1SH	/ITSUBISHI A3N/A1SH		
Com port	RS232			
Baud rate	9600			
Parity bit	Odd			
Data Bits	8			
Stop Bits	1			
HMI Station No.	0			
PLC Station No.	0			

## **PLC Setting:**

Communication	9600, Odd, 8, 1
mode	

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhhh	0-ffff	Input Relay
В	Y	hhhh	0-ffff	Output Relay
В	М	ddddd	0-65535	Auxiliary Relay
В	В	hhhh	0-ffff	
В	F	ddddd	0-65535	
W	TV	ddddd	0-65535	Timer Memory
W	CV	ddddd	0-65535	Counter Memory
W	D	ddddd	0-65535	Data Register
W	W	hhhh	0-ffff	
W	R	ddddd	0-65535	

d: Decimal h: Hexadecimal



## Wiring diagram:

Use the RS422 to RS232 PLC programming cable (show as follows)

#### MITSUBISHI AnS CPU



Mits	ubishi		PLC		MT80	00
RS-422			programming		COM1 RS232	
DB2	5 Male	_	Cable		9P D-5	SUB Female
2	RX+		RD		3	TD
3	TX+		TD		2	RD
4	DSR+		GND		5	GND
7	GND		RTS		8	CTS
15	RX-		CTS		7	RTS
16	TX-					
17	DSR-					



## **Driver Version:**

Version	Date	Description of Changes
V1.00	Oct/20/2009	

Note: This driver is not available for On-Line Simulation.

## MITSUBISHI AJ71

Mitsubishi A series PLC with AJ71C24 communication module using the Computer Link protocol. <u>http://www.mitsubishi-automation.com</u>

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI AJ71	MITSUBISHI AJ71(AnA/AnU CPU)	
		MITSUBISHI AJ71	
Com port	RS485 4W	RS485 4W, RS232	
Baud rate	19200	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	0		

## **PLC Setting:**

Communication mode	Computer Link protocol 9600, Even, 8, 1 (default)
Mode Setting Switch	Format 1
Parity Check	Enable
Sum Check	Enable

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
D	Х	hhh	hhh: 0~270F	Input Bits
D			(hex-decimal)	
D	Y	hhh	hhh: 0~270F	Output Bits
В			(hex-decimal)	
В	М	dddd	dddd:0~9999	Internal Relays
W	TV	ddd	ddd:0~255	Timer Preset Value
W	CV	ddd	ddd:0~255	Counter Preset Value
W	D	dddd	ddd:0~9999	Data Registers



#### Wiring diagram:

RS-485 4W:

MT800 Com1 RS-485]

9P D-SUB

#### AJ71C24 RS-422

71	D-50D	
1	RX-	SDB
2	RX+	SDA
3	TX-	RDB
4	TX+	RDA
5	GND	GND

#### RS-232: A1SJ71UC24-R2

#### MT8000 RS232

#### 9P D-SUB

COM1	COM2	COM3		
3 TX	4 TX	7 TX	2	RXI
2 RX	6 RX	8 RX	3	TXI
5 GND	5 GND	5 GND	5	GNI

2 RXD
3 TXD
5 GND
1 DCD
 4 DTR
 6 DSR
 7 RTS
 8 CTS

RS232 port 9P D-SUB Female

Version	Date	Description of Changes
V1.40	Feb/09/2009	

## MITSUBISHI FX0n/FX2

#### Mitsubishi FX0s/FX0n/FX1s/FX2 PLC

http://www.mitsubishi-automation.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Mitsubishi FX0n/FX2	Mitsubishi FX0n/FX2	
Com port	RS485	RS232/RS485	
Baud rate	9600	9600/19200/38400/57600/	must same as the PLC setting
		115200	
Parity bit	Even	Even, Odd, None	must same as the PLC setting
Data Bits	7	7,8	must same as the PLC setting
Stop Bits	1	1,2	must same as the PLC setting
HMI Station No.	0	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	must same as the PLC setting

#### **PLC Setting:**

	Communication mode 9	9600,Even,7,1
--	----------------------	---------------

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	000	0-377	Input Relay
В	Y	000	0-377	Output Relay
В	М	ddd	0-9999	Auxiliary Relay
В	Т	ddd	0-255	Timer Relay
В	С	ddd	0-255	Counter Relay
В	D_Bit	dddd(dd)	0-9999(0~15)	Data Register Bit (D)
В	S	dddd	0-4095	States
В	SM	dddd	8000-9999	Special Aux. Relays
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-199	Counter Memory
W	D	ddd	0-9999	Data Register

WEINTEK

PLC Connection Guide

DW	CV2	ddd	200-255	Counter Memory(D Word)
W	SD	ddd	8000-9999	Special Data Register

## Wiring diagram:

MT8000	Mitsubishi PLC CPU	
COM1 [RS-485] 4w	RS422 Port	
9P D-SUB	8P MiniDin Female	
1 RX-	4 TX-	
2 RX+	7 TX+	
5 GND	3 GND	
3 TX-	1 RX-	
4 TX+	2 RX+	



8Pin miniDin Female

#### MT8000

#### Mitsubishi PLC CPU RS422 Port

25P Female

#### 9P D-SUB Male

COM1 [RS-485] 4w

BF D-SOB Male	
1 RX-	16 TXD-
2 RX+	3 TXD+
3 TX-	15 RXD-
4 TX+	2 RXD+
5 GND	7 GND
	4 DSR+
	8 GND
	13 +5V
	17 DSR-

Version	Date	Description of Changes
1.10	August 27.2009	Add address type [S], [SM], [D_bit]

## MITSUBISHI FX232/485BD

Mitsubishi FX0n/FX2/FX2n COM For Communication Module BD FX2N-485-BD, FX2N-232-BD, FX1N-485-BD and FX1N-232-BD http://www.mitsubishi-automation.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI		
	FX232/485BD		
Com port	RS232/RS485	RS232/RS485 2w/4w	in accordance with the BD module
Baud rate	19200	9600/19200	must same as the PLC setting
Parity bit	Even	Even, Odd, None	must same as the PLC setting
Data Bits	7	7,8	must same as the PLC setting
Stop Bits	1	1,2	must same as the PLC setting
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-15	must same as the PLC setting

Note: we suggest the turn around delay to set 8. (For i series)

Online Simulator	YES	Extend address mode	YES
Broadcast command			

#### **PLC Setting:**

Communication mode	Must set PLC station when use the BD Module

Register D8120 setting: set b9 and b8 of BFM#0 as 0

X parameter		FX parameter	
Memory capacity  PLC name   1/O assignment   P	LC system(1) PLC system(2)	Memory capacity PLC name I/O assignment	ent   PLC system(1) PLC system(2)
Operate communication setting Protocol	e parameters will be cleared. fer the program to the communication board, es in the PLC must be cleard upon program transfer.)	Operate If the box is not che communication (When GX Develop setting parameters and D81: Protocol	:ked, the parameters will be cleared. If transfer the program to the communication bo 20 values in the PLC must be cleard upon progra
Dedicated protocol	Control line	Dedicated protocol	Control line
Data length 7bit	H/W type	Data length 7bit	H/W type Regular/RS-232C
Parity Even 💌	Control mode Invalid	Parity Even 💌	Control mode Invalid
Stop bit	🔽 Sum check	Stop bit	🔽 Sum check
Transmission speed	Transmission control procedure Form1	Transmission speed	(bps) Form1
F Header	Station number setting 01 H (00H0FH)	Header	Station number setting 01 H (00H0FH
T Terminator	Time out judge time	Terminator	Time out judge time

#### FX2N-485-BD, FX1N-485-BD

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	000	0-377	Input Relay
В	Y	000	0-377	Output Relay
В	М	ddd	0-9999	Auxiliary Relay
В	Т	ddd	0-255	Timer Relay
В	С	ddd	0-255	Counter Relay
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-199	Counter Memory
W	D	ddd	0-9999	Data Register
W	CV2	ddd	200-255	Counter Memory(D Word)

## Wiring diagram:

#### Communication Module RS232BD:

#### MT8000 RS232

#### 9P D-SUB

C	OM1	С	OM2	C	OM3	9F D-3	OD remaie
3	ΤХ	4	ΤХ	7	ΤХ	2	RXD
2	RX	6	RX	8	RX	3	TXD
5	GND	5	GND	5	GND	5	GND

#### 232BD Module

FX2N-232-BD, FX1N-232-BD

#### OP D SUB Female

#### ection Guide



#### Communication Module RS485BD:

#### MT8000 COM1

#### 485BD Module

RS-485 4w

5P terminal

9P D-SUB Male

1 RX-	SDB
2 RX+	SDA
3 TX-	RDB
4 TX+	RDA
5 GND	SG

#### Communication Module RS485BD:

MT8000 H	RS-485 2Wire	RS485BD Module
9P ]	D-SUB	5P terminal
COM1	COM3	
1 RX-	6 Data-	SDB
2 RX+	9 Data+	SDA
3 TX-		RDB
4 TX+		RDA
5 GND	5 GND	SG

Version	Date	Description of Changes
V1.00	Dec/30/2008	

## MITSUBISHI FX2n

#### Mitsubishi FX1n/FX2n series PLC

http://www.mitsubishi-automation.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Mitsubishi FX2n	Mitsubishi FX2n	
Com port	RS485	RS232/RS485	
Baud rate	9600	9600/19200/38400/5760	
		0/115200	
Parity bit	Even		
Data Bits	7		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

## **PLC Setting:**

Communication mode 9600,Even,7,1
----------------------------------

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	000	0-377	Input Relay
В	Y	000	0-377	Output Relay
В	М	dddd	0-7999	Auxiliary Relay
В	Т	ddd	0-255	Timer Relay
В	С	ddd	0-255	Counter Relay
В	SM	dddd	8000-9999	Special Auxiliary Relay
В	D_Bit	dddd(dd)	0~7999(0~15)	Data Register Bit (D)
В	S	dddd	0~4095	State Relay (S)
W	TV	ddd	0-255	Timer Memory

PLC Connection Guide

Bit/Word	Device Type	Format	Range	Memo
W	CV	ddd	0-199	Counter Memory
W	D	ddd	0-7999	Data Register
DW	CV2	ddd	200-255	Counter Memory(D Word)
W	SD	ddd	8000-9999	Special Data Register

Wiring diagram:

MT8000		Mitsubishi FX series PLC	
COM1 [RS-485]4w		CPU RS422 Port	
9P D-SUB		8P MiniDin Female	$\begin{bmatrix} 8 & 7 & 6 \\ 5 & 4 & 3 \end{bmatrix}$
1 RX-		- 4 TX-	2 1
2 RX+		7 TX+	8Pin miniDin
3 TX-		1 RX-	Female
4 TX+		2 RX+	
5 GND		3 GND	

Version	Date	Description of Changes
V1.60	Sep/10/2009	

# MITSUBISHI FX3u (Ethernet)

#### MITSUBISHI FX SERIES, Module: FX3U-ENET

http://www.mitsubishi-automation.com

## HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI FX3u		
	(Ethernet)		
Com port	Ethernet		
PLC Station No.	0 (default)	Refer Module Setting	
TCP/IP port	5001(default)	Refer Module Setting	

#### **Device address:**

Bit/Word	Device type	Format	Range	Memo
В	Х	000	0~377	Input
В	Y	000	0~377	Output Relay
В	М	dddd	0~7679	Internal Relay
В	S	dddd	$0 \sim 4095$	Step Relays
В	Т	ddd	0~511	Timer Contacts
В	С	ddd	0~255	Counter Contacts
В	SM	dddd	8000 ~ 8511	Special Int. Relays
В	D_Bit	dddd(dd)	0-799915	Data Register Bit
				Access
W	TV	ddd	0~511	Timer Value
W	R	ddddd	0~32767	File Register
W	CV	ddd	0~199	Counter Value
W	D	dddd	0~7999	Data Registers
W	CV2	ddd	200~255	Counter Value
W	SD	dddd	8000 ~ 8511	Special Data Registers

ddd: (Decimal), hhh:(Hexadecimal), ooo:(Octal).



## Wiring diagram:

#### Ethernet:

МТ	4T8000 Wire color		Ethernet Hub or		
Ethernet RJ45		Switch RJ45			
1	TX+	White/Orange	1	RX+	
2	TX-	Orange	2	RX-	
3	RX+	White/Green	3	TX+	
4	BD4+	Blue	 4	BD4+	
5	BD4-	White/Blue	 5	BD4-	
6	RX-	Green	 6	TX-	
7	BD3+	White/Brown	7	BD3+	
8	BD3-	Brown	8	BD3-	



#### Ethernet: Direct connect (crossover cable)

MT8000		Wire color	Modb	ous TCP Device
Eth	ernet RJ45		RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	 6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	 4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



Fx3u-ENET module setting:

Before using Ethernet module, using GX Developer / FX Configurator-EN to set the Ethernet module, the FX3u-ENET module settings as below steps.



1. Open GX Developer, select "Read from PLC" in Online list.

2. Select "FXCPU" in PLC series.



3. Users have to connect PLC via series port for setting IP address at first time.
| WEINTEK   | PLC Connection Guide |
|---|----------------------|
| Transfer Setup  | ×                    |
| PC side I/F Serial CC IE Cont NET(II) CC-Link Ethemet PLC AF board Doard COM CO14 1 Transmission speed 115.2Kbps  | SSC<br>net           |
| PLC side I/F PLC module PLC side I/F PLC CC FE C DUUED CC FE C  | Bus                  |
| Other<br>station     Image: Construction of the state of the | ction channel list   |
| Network<br>route<br>C24 CC IE Cont NET(II) CC-Link Ethernet<br>NET/10(H)<br>Multiple CPU setting<br>Detail  |                      |
| Co-existence<br>network route<br>C24 CC IE Cont NET(II) CC-Link Ethemet<br>NET/I0(H)<br>Terget PLC  | CK                   |
| Accessing host station  | Close                |

4. After finishing the PLC settings, select Tools/FX special function utility/FX Configurator-EN

MELSOFT series GX Developer (Unset project) - [LD(Re	ad mode) MAIN 459 Ster	
🔲 Project Edit Eind/Replace Convert View Online Diagnostics	<u>Iools Window H</u> elp	- 8 ×
	Check program Confirm project memory size Merge data Check parameter Transfer ROM Delete unused comments Clear all parameters IC memory card	
Image: Construction of the second s	Start ladder logic test Set TEL data	(C1 )
Device memory	Intelligent function utility	[RST C1 ]
14	Customize keys Change display color <u>O</u> ptions	-[иоч ст клизо ]
	Create start-up setting file	[моч сі кімза ]
	FX special function utility	FX Configurator-EN
		{MOV C1 K1M42 }
		-{MOV C1 K1M46 }
		[моч сі кімбо ]
P14 18002 45		-[NOV HOFEFE K4M60 ] K2
Project		(T0 )
Execute FX Configurator-EN FX3U(C) Host station	1	NUM

5. Select "Module 0" in Ethernet Module settings.



( If more than one module, please setting modules step by step)

📭 FX Configurator-EN	V (Unset file) - [	Ethernet settings]	
Eile ⊻iew Help			
Ethernet Module	e settings		
Module 0		<b>T</b>	
Module Non	IC.	<u>^</u>	
Module 0			
Module 1 Module 2			
Module 3			
Module 4		<u> </u>	
	E-mail settings		
Necessary setting( No setting	/ Already set )	Default	
Set if it is needed( No setting	/ Already set )	Check	
Online			
1	1	1	
Transfer setup	PLC remote operation	Diagnostics	
Write	Read	Verify	
Ready			 NUM SCRL

6. In Ethernet operational settings, select the related parameters and IP address and then press "End" to finish the settings.

<b>I</b> FX Configurator	-EN (Unset file) - [	Ethernet operational set	tings]
File View Help			
Communication data code -	Initial timing Do not wait for OPEN ( Co impossible at STOP time ) Always wait for OPEN ( C possible at STOP time )	mmunications	
- IP address		Send frame setting	
IP address 192	168 1 180	(• Ethernet(√2.0)	
	TCP Exis © Use	tence confirmation setting the KeepAlive the Ping	
1	End		
Ready			NUM SCRL



7. In Ethernet open settings, press "End" after setting the below parameters.

			1 0 1				0	-			
1	тср	▼	MELSOFT connection	▼		•		•	•	•	
2	тср	•	Unp <i>as</i> sive	▼	Send	•	Procedure exist(MC)	•	Disable 🔻	No confirm 🛛 🔻	5001
3	тср	•	Unp <i>as</i> sive	•	Send	•	Procedure exist(MC)	•	Disable 🔻	No confirm 🛛 🔻	5001
4	тср	•	Unp <i>as</i> sive	•	Send	•	Procedure exist(MC)	•	Disable 🔻	No confirm 🛛 🔻	5001

(The first Protocol means using GX Developer to communicate with module, The max. "Fixed buffer communication preocedure" is 4 units.)

	FX	Cor	fig	urator-EN (U	пs	et file	)	- [Ethernet o	pe	n set	tiı	ngs]			
	Eile	View	I	Ielp											
	D 📾		6												
ŕ			//////////////////////////////////////												
		Prote	0001	Open system		Fixed bu	iffer	Fixed buffer communication procedure		Pairir oper	ng n	Existeno confirmati	e on	Host station Port No. (DEC.)	Transmission target device IF address
	1	TCP	-	MELSOFT connection	-		-	)	-		-		-		
	2	TCP	-	Unpassive	-	Send	+	Procedure exist(MC)	-	Disable	+	No confirm	-	5001	-
	з	TCP	-	Unpassive	-	Send	-	Procedure exist(MC)	-	Disable	-	No confirm	-	5001	
	4	TCP	-	Unpassive	-	Send	+	Procedure exist(MC)	-	Disable	-	No confirm	-	5001	
	5		•	11 11	+		+		-		-		-		
	6		-	1	ł		+	0	•		+		-		]
	7		+		٠		+	Į.	+		-		-		
	8	1	-		•		-		-		-		-		
								End		Ca	ince	al			
R	i													]	

8. After setting the parameters to PLC, restart for using Ethernet communication.

WEINTEK	PLC Connection Guide
<b>EX Configurator-EN (Unset file) - [Ethernet settings]</b> <u>Eile View Help</u>	
Connection interface     COM1-115.2Kbps       Necessary settine     Read       Set if it is neede     Read       Online       Transfer setup       PLC remote operation       Diagnostics	
Write         Read         Verify           Ready	NUM

Version	Date	Description of Changes
V1.00	Feb/12/2009	

# MITSUBISHI FX3u/FX3G

#### Mitsubishi FX3U/FX3UC/FX3G

http://www.mitsubishi-automation.com

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI FX3u		
Com port	RS485 4w	RS232/RS485 2w/4w	
Baud rate	9600	9600/19200	must same as the PLC setting
Parity bit	Even		must same as the PLC setting
Data Bits	7		must same as the PLC setting
Stop Bits	1		must same as the PLC setting
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	0		Does not apply to this protocol

Online Simulator	YES (9600 baud	Extend address mode	NO
	rate only)		

#### **PLC Setting:**

~	
Communication mode	0(00 - 7.1)
communication mode	9600,Even, 7,1
	, , , ,

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	000	0~377	Input Relay
В	Y	000	0~377	Output Relay
В	М	dddd	0~7679	Auxiliary Relay
В	SM	dddd	8000~9999	Special Relay (M)
В	S	dddd	0~4095	State Relay (S)
В	Т	ddd	0~511	Timer Relay (T)
В	С	ddd	0~199	Counter Relay (C)
В	D_Bit	dddd(dd)	dddd=0~7999 (dd)=0~15	Data Register Bit (D)

PLC Connection Guide

Bit/Word	Device Type	Format	Range	Memo
W	TV	ddd	0~511	Timer Memory (T)
W	CV	ddd	0~199	Counter Memory (C)
DW	CV2	ddd	200~255	Counter Memory(D Word)
W	D	dddd	0~7999	Data Register (D)
W	SD	dddd	8000~99999	Special Data Register (D)
W	R	ddddd	0~32767	Extended Register (R)

## Wiring diagram:

MT8000	Mitsubishi FX series PLC	
COM1[RS-485]4w	CPU RS422 Port	
9P D-SUB	8P MiniDin Female	
1 RX-	4 TX-	21
2 RX+	7 TX+	8Pin miniDin
3 TX-	1 RX-	Female
4 TX+	2 RX+	
5 GND	3 GND	

Version	Date	Description of Changes
V1.40	Apr/15/2009	



## MITSUBISHI MELSEC-Q (Ethernet)

MITSUBISHI Q series (Q03UDE, Q04UDEH, Q06UDEH, Q10UDEH, Q13UDEH, Q20UDEH, Q26UDEH), MELSEC-Q protocol application to CPU of Ethernet interface or Ethernet module. http://www.mitsubishi-automation.com

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI MELSEC-Q		
Com port	Ethernet		
PLC Station No.	It must same as the PLC setting	255	Q13UDEH has to set 255
Parameter1	Networking no. (it must the same	0~255	Q13UDEH has to set 0
	as PLC setting)		
TCP/IP port	It must same as the PLC setting		Advice to set port no. to 4999

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	SM	dddd	$0 \sim 2047$	Special Relay
В	Х	hhhh	$0 \sim 1 FFF$	Input Relay
В	Y	hhhh	$0 \sim 1 FFF$	Output Relay
В	М	dddd	0~8191	Internal Relay
В	L	dddd	0~8191	Latch Relay
В	F	dddd	$0 \sim 2047$	Annunciator
В	V	dddd	0~2047	Edge Relay
В	В	hhhh	0 ~ 1FFF	Link Relay
В	TS	dddd	0~2047	Timer Contact
В	ТС	dddd	$0 \sim 2047$	Timer Coil
В	SS	dddd	0~2047	Retentive Timer Contact
В	SC	dddd	0~2047	Retentive Timer Coil
В	CS	dddd	0~1023	Counter Contact
В	CC	dddd	0~1023	Counter Coil
В	SB	hhh	$0 \sim 7 \mathrm{FF}$	Special Link Relay
В	S	dddd	0~8191	Step relay
В	DX	hhhh	$0 \sim 1 FFF$	Direct Input
В	DY	hhhh	$0 \sim 1 FFF$	Direct Output
W	SD	dddd	0~2047	Special register

WEINTEK PLC Connection Guide					
W	D	ddddd	0~12287	Data Register	
W	W	hhhh	$0 \sim 1 FFF$	Link Register	
W	TN	dddd	0~2047	Timer Current value	
W	SN	dddd	0~2047	Retentive Timer Current value	
W	CN	dddd	0~1023	Counter Current value	
W	SW	hhh	$0 \sim 7 \mathrm{FF}$	Special Link Register	
W	Z	dd	0~15	Index Register	
W	R	ddddd	0~32767	File Register	
W	ZR	hhhhh	$0 \sim FE7FF$	File Register	

Note: ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Every mdel of CPU is different, we suggest user to refer to MITSUBISHI MELSEC-Q manual's Device List.

### Wiring diagram:

Eth	ernet:		
MT	8000 Ethern	net Wire color	Ethernet Hub or
RJ4	15		Switch RJ45
1	TX+	White/Orange	1 RX+
2	TX-	Orange	2 RX
3	RX+	White/Green	3 TX+
4	BD4+	Blue	4 BD4+
5	BD4-	White/Blue	5 BD4-
6	RX-	Green	6 TX-
7	BD3+	White/Brown	7 BD3+
8	BD3-	Brown	8 BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color

Modbus TCP Device

RJ45	5		_	RJ45	
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-



#### MITSUBISHI Q series Ethernet module setting:

#### Remark: If using QJ71E71 module, please refer MITSUBISHI QJ71E71 connection guide.



- 1. Click PLC parameter
- 2. Built-in Ethernet port.
- 3. Click Open settings and then set the IP address and communication data code
- 4. Set the MC protocol-TCP Port No.1387 (Hex) and in EB8000 TCP port is 4999 (Dec).

Note: In EB8000, please fill in network no. in Parameter 1 as PLC setting. For example,

From below picture, the Network no. is 2



	Module 1		
Network type	Ethernet 👻		
Starting I/O No.	0000		
Network No.	2		
Total stations			
Group No.	1		
Station No.	81		
Mode	On line 👻		
	Operational settings		
	Initial settings		
	Open settings		
	Router relay parameter		
	Station No.<>IP information		
	FTP Parameters		
	E-mail settings		

Users have to set 2 in Parameter 1 in EB8000.

Device Properties
Name MITSUBISHI MELSEC-Q (Ethernet)
OHMI ⊙PLC Location : Local Settings
PLC type : MITSUBISHI MELSEC-Q (Ethernet)
V.1.20, MITSUBISHI_MELSEC_Q.so PLC I/F : Ethernet  PLC default station no. : 1
Use UDP (User Datagram Protocol ) IP : 0.0.0.0, Port=5002
IP Address Settings
IP address : 192 . 168 . 1 . 110 Port no. : 5002
Timeout (sec) : 1.0       Turn around delay (ms) : 0         Send ACK delay (ms) : 0       Parameter 1 : 2
Parameter 2 : 0 Parameter 3 : 0
OK Cancel



Version	Date	Description of Changes
1.00	Jun/16/2009	Add address type [S], [SM], [D_bit]



## MITSUBISHI Q00/Q00UJ/Q01/QJ71

Mitsubishi Q series PLC with QJ71C24 communication module, Q00, Q00J, Q00UJ, Q01, Q02H, Q06H, Q12H, Q25H, Q12PH, Q25PH CPU port.

http://www.mitsubishi-automation.com

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI		
	Melsec_QJ71		
Com port	RS232	RS485 4W, RS232	
Baud rate	9600	9600~115200	
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES
Extend address mode	NO

### **PLC Setting:**

Communication mode

#### Q00, Q01 CPU port setting:



- 1. In the GX Developer "PLC data list" click the "PLC parameter"
- 2. In the "PLC parameter" select "Serial" page.
- 3. Select "Use serial communication"
- 4. Set the "Transmission speed". 9600~115200.
- 5. Select "Sum check"
- 6. Select "Transmission wait time" to 10ms.
- 7. Select "RUN write setting"
- 8. Click "End" close the dialog.

9. Write the PLC Parameter to PLC.

10. RESET the PLC, the parameter will active.

Note: Please check "Permit" in "RUN write setting" item.

	3737					
C name oot file	PLC system	PLC file	PLC RAS	Device	Program Serial	
I Use ser	ial communication					
_ Transm	nission speed					Ĩ
1	9.2Kbps 💌					
🔽 Su	m check					
Transn	nission wait time					
RUN	vrite setting					
Per Per	rmit					
Data fo Start bi Data bi	rmat value is fixed as t :1 Parity bit:Odd t:8 Stop bit:1	below.				
2					50	1

#### QJ71 setting:

parameter setting													
2LC n	ame   Assigni	PLC system P	LC file	PLC RAS	evice   F	Program Boo	ot file	SFC	1/O assignm	ent			
1	S	lot Typ	e	Model n	ame	Points		StartXY		-			
0	PLC	PLC	-	5			•				Swite	ch setting	
1	0(*-0)	Intelli.		QJ71C24		32points	-		Select				
2	1(*.1)		-				•	1			Detai	ed setting	
3	2(*-2)			5			-			$\searrow$	<u>.</u>		
4	3(*-3)			-			*	-	(	-			
5	4(*-4)		-				-	-	(	T.	A		
6	5(*-5)		*	-			*	-			1		
Base	settin	(nis setting bian) ig(*) Base model nai	will r	Power model nan	ne Exte	nsion cable	Sid	ots	Base mod	le –			
Ma	ain		Marin M		6 <u>11</u> - 52664		12828	<b>•</b>	C Detai	e.			
Ext.B	ase1		-		1	1		+		St			
Ext.B	ase2							*					
Ext.B	ase3							-	8 Slot Def	ault			
Ext.B	ase4				1			*	100-10-1				
Ext.B	ase5				-			-	12 3100 DB	auit			
Ext.B	ase6				-			-					
Ext.B	ase7		_		_			-					
(110													
(*)S เ	etting: Ising n	s should be set a nultiple CPU.	as san	ne when	Import Mi	ultiple CPU Pa	arame	eter	Read PLC d	ata			
		Acknowl	edae	XY assignment	Multiple	CPU settings	1 1	Default	Check	F	nd	Cancel	1

Serial Communication/Modem Interface Mo	odule 💌	í.
QJ71C24		
QJ71C24N QJ71C24N-R2 QJ71C24N-R4		
QJ71C24	UK	Lance
	Serial Communication/Modern Interface Mo QJ71C24 QJ71C24N-P2 QJ71C24N-P4 QJ71C24N-P4 QJ71C24N-P4 QJ71C24N-P4 QJ71C24N-P4 QJ71C24D-P2 QJ71C	Serial Communication/Modem Interface Module         ▼           QJ71C24         ▼           QJ71C24N         QJ71C24N           QJ71C24N-R2         QJ71C24N-R2           QJ71C24N-R2         QJ71C24N-R2           QJ71C24N-R4         QK





### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhh	0~1FFF	Input Relay
В	Y	hhh	0~1FFF	Output Relay
В	М	dddd	0~8191	Internal Relay
В	L	dddd	0~8191	Latch Relay
В	F	dddd	0~2047	Annunciator
В	V	dddd	0~2047	Edge Relay
В	В	hhh	0~1FFF	Link Relay
В	ТС	ddd	0~2047	Timer Coil
В	SS	ddd	0~2047	Retentive Timer Contact
В	SC	ddd	0~2047	Retentive Timer Coil
В	CS	ddd	0~1023	Counter Contact
В	CC	ddd	0~1023	Counter Coil
В	SB	hhh	0~7FF	Special Link Relay
В	S	dddd	0~8191	Step Relay
В	DX	hhh	0~1FFF	Direct Input
В	DY	hhh	0~1FFF	Direct Output
В	TS	ddd	0~2047	Timer Contact
W	W	hhh	0~1FFF	Link Register
W	TN	ddd	0~2047	Timer Current Value
W	SN	ddd	0~2047	Retentive Timer Current Value
W	CN	ddd	0~1023	Counter Current Value
W	R	ddddd	0~32767	File Register
W	SW	hhh	0~7FF	Special Link Register
W	Z	d	0~9	Index Register
W	ZR	hhhh	0~FFFF	File Register
W	D	ddddd	0~12287	Data Register

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.



### Wiring diagram:

#### RS-485 4W:

#### MT8000 COM1

#### QJ71C24 CH.2

QJ71C24 CH.1

RS-485 4w

RS-422

9P D-SUB Male

1	RX-	SDB
2	RX+	SDA
3	TX-	RDB
4	TX+	RDA
5	GND	GND

RS-232:

#### MT8000 RS232

	9P D-SUB		9P	RS232 port D-SUB Male
COM1	COM2	COM3		
3 TX	4 TX	7 TX	2	RXD
2 RX	6 RX	8 RX	3	TXD
5 GND	5 GND	5 GND	5	GND
			1	DCD
			4	DTR
			6	DSR
			7	RTS
			8	CTS

#### Q00, Q01 CPU port RS-232:

Ν	1T8000 RS23	32			Q00, Q01
	9P D-SUB		_	N	fini-DIN 6pin
COM1	COM2	COM3			
3 TX	4 TX	7 TX		3	RXD
2 RX	6 RX	8 RX		4	TXD
5 GND	5 GND	5 GND		5	GND



MINI-DIN 6Pin Female





#### Q00UJ CPU port RS-232:

MT8000 RS 9P D-SUB	8232			Q00 CPU	UJ J port	1000
COM1	COM2	COM3	1	Min	i-DIN 6pin	$2 \left( 0 \sqcup 0 \right)$
3 TX	4 TX	7 TX		3	RXD	3 2000
2 RX	6 RX	8 RX		4	TXD	MINI-DIN 6Pin
5 GND	5 GND	5 GND		5	GND	Female
				6	CTS	
				1	RTS	

Version	Date	Description of Changes
V1.20	Dec/30/2008	

## MITSUBISHI Q00J

#### MITSUBISHI Q00J CPU

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q00J		
Com port	RS-232		CPU port
PLC Station No.			
Baud rate	115200		9600,19200,38400,57600,115200
Data bit	8		
Parity bit	Odd		
Stop bit	1		

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	SM	dddd	0~1023	
В	Х	hhh	$0 \sim 7 \mathrm{FF}$	
В	Y	hhh	$0 \sim 7 \mathrm{FF}$	
В	М	dddd	0~8191	
В	L	dddd	$0 \sim 2047$	
В	F	dddd	0~1023	
В	V	dddd	0~1023	
В	В	hhh	$0 \sim 7 \mathrm{FF}$	
В	SB	hhh	$0 \sim 3 FF$	
W	SD	ddd	0~1023	
W	W	hhh	$0 \sim 7 \mathrm{FF}$	
W	Т	dddd	0~511	
W	SW	hhh	$0 \sim 3 FF$	
W	Z	dddd	0~9	
W	С	dddd	0~511	
W	D	dddd	0~11135	

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.



### Wiring diagram:

RS-232:

MT8000 RS232				Q00	1 0 0 6
9P D-SUB				CPU port	$2 \left( 0 \right) $
COM1	COM2	COM3	Mi	ni-DIN 6pin	3 2000 4
3 TX	4 TX	7 TX	3	RXD	MINI-DIN 6Pin Male Contact side
2 RX	6 RX	8 RX	4	TXD	MINI-DIN 6Pin
5 GND	5 GND	5 GND	5	GND	Female

MT8-Mitsubishi-Q-3M cable is able to connect MT8000 and Mitsubishi Q series directly. <u>ftp://ftp.weintek.com/MT8000/eng/DataSheet/RZC000043\_MT8\_MITSUBISHI\_Q\_3M.pdf</u>

Version	Date	Description of Changes
V1.10	Sep/18/2009	



## MITSUBISHI Q00U/Q01U/Q02U/QnUD/QnUDH

MITSUBISHI Q00U, Q01U, Q02U, Q03UD, Q04UDH, Q06UDH, Q10UDH, Q13UDH, Q20UDH, Q26UDH CPU

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q02U		
Com port	RS232	RS485 4W, RS232	CPU port connect directly
Baud rate	115200	115200 only	9600,19200,38400,57600,115200
			For Q00UJ, only 9600 available
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
PLC Station No.	No		

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhhh	0~1FFF	Input Relay
В	Y	hhhh	0~1FFF	Output Relay
В	М	dddd	0~8191	Internal Relay
В	L	dddd	0~8191	Latch Relay
В	F	dddd	0~2047	Annunciator
В	V	dddd	0~2047	Edge Relay
В	В	hhhh	0~1FFF	Link Relay
В	SB	hhh	0~7FF	Special Link Relay
W	W	hhhh	0~1FFF	Link Register
W	Т	dddd	0~0247	Timer Current Value
W	SW	hhh	0~7FF	Special Link Register
W	Z	dd	0~19	Index Register
W	С	dddd	0~1023	Counter Current Value
W	D	ddddd	0~12287	Data Register

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Note:

EB8000 doesn't support MITSUBISHI Q02U CPU to do on-line simulation on PC. When using Q02U driver, HMI needs 10 seconds to initial the PLC Q02U driver. Before finishing



initial, we suggest users don't write data to PLC, or it could cause the "PLC no response"; and if

the wiring diagram or the data are incorrect, it could cause PLC locked. If the PLC locked, users have to restart PLC or reinstall PLC module.

#### Wiring diagram:

RS-232:



Version	Date	Description of Changes
V1.40	Jul/08/2009	

## MITSUBISHI

## Q00UJ/QnU/QnUD/QnUDH/QnUDEH (mini

## USB)

MITSUBISHI Q00UJ, Q00U, Q01U, Q02U, Q03UDE, Q03UD, Q04UDEH, Q04UDH, Q06UDEH, Q06UDH, Q10UDEH, Q10UDH, Q13UDEH, Q13UDH, Q20UDEH, Q20UDH, Q26UDEH, Q26UDH USB Port

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q02U		
Com port	USB		CPU port connect directly
Baud rate			
Parity bit			
Data Bits			
Stop Bits			
PLC Station No.			

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhhh	0~1FFF	Input Relay
В	Y	hhhh	0~1FFF	Output Relay
В	М	dddd	0~8191	Internal Relay
В	L	dddd	0~8191	Latch Relay
В	F	dddd	0~2047	Annunciator
В	V	dddd	0~2047	Edge Relay
В	В	hhhh	0~1FFF	Link Relay
В	SB	hhh	0~7FF	Special Link Relay
W	W	hhhh	0~1FFF	Link Register
W	Т	dddd	0~0247	Timer Current Value
W	SW	hhh	0~7FF	Special Link Register
W	Z	dd	0~19	Index Register
W	С	dddd	0~1023	Counter Current Value
W	D	ddddd	0~12287	Data Register



ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

Note:

EB8000 doesn't support MITSUBISHI Q02U CPU to do on-line simulation on PC. When using Q02U driver, HMI needs 10 seconds to initial the PLC Q02U driver. Before finishing

initial, we suggest users don't write data to PLC, or it could cause the "PLC no response"; and if

the wiring diagram or the data are incorrect, it could cause PLC locked. If the PLC locked, users have to restart PLC or reinstall PLC module.

Version	Date	Description of Changes
V1.00	Feb/09/2010	

## MITSUBISHI Q02H

#### Mitsubishi Q02/Q02H CPU port.

http://www.mitsubishi-automation.com

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q02H		
Com port	RS232	RS485 4W, RS232	
Baud rate	115200	115200 only	
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

### **PLC Setting:**

Communication mode	

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhh	0~1FFF	Input Relay
В	Y	hhh	0~1FFF	Output Relay
В	М	dddd	0~8191	Internal Relay
В	L	dddd	0~8191	Latch Relay
В	F	dddd	0~2047	Annunciator
В	V	dddd	0~2047	Edge Relay
В	В	hhh	0~1FFF	Link Relay
В	TC	ddd	0~2047	Timer Coil
В	SS	ddd	0~2047	Retentive Timer Contact
В	SC	ddd	0~2047	Retentive Timer Coil
В	CS	ddd	0~1023	Counter Contact

WEINTEK PLC Connection Guide						
Bit/Word	Device Type	Format	Range	Memo		
В	CC	ddd	0~1023	Counter Coil		
В	SB	hhh	0~7FF	Special Link Relay		
В	S	dddd	0~8191	Step Relay		
В	DX	hhh	0~1FFF	Direct Input		
В	DY	hhh	0~1FFF	Direct Output		
В	TS	ddd	0~2047	Timer Contact		
W	W	hhh	0~1FFF	Link Register		
W	TN	ddd	0~2047	Timer Current Value		
W	SN	ddd	0~2047	Retentive Timer Current Value		
W	CN	ddd	0~1023	Counter Current Value		
W	R	ddddd	0~32767	File Register		
W	SW	hhh	0~7FF	Special Link Register		
W	Z	d	0~9	Index Register		
W	ZR	hhhh	0~FFFF	File Register		
W	D	ddddd	0~12287	Data Register		

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

## Wiring diagram:

RS-232:

MT8000 R 9P D-SUB COM1	8232	COM3	1	Q02 CPU Min	2 J port ii-DIN 6pin	$\begin{array}{c}1 \\ 2 \\ 0 \\ \end{array} \begin{array}{c}0 \\ 0 \\ 0 \\ \end{array} \begin{array}{c}6 \\ 5 \\ 5 \\ \end{array}$
3 TX	4 TX	7 TX		4	RXD	3 200 4
2 RX	6 RX	8 RX	-	3	TXD	MINI-DIN 6Pin
5 GND	5 GND	5 GND		5	GND	Female
			- 	6	CTS	
				1	RTS	

Version Date		Description of Changes
V1.40	Aug/19/2009	
V1.50	Jan/05/2010	Fixed communication problem

## MITSUBISHI Q06H

#### Mitsubishi Q06H CPU port.

#### http://www.mitsubishi-automation.com

#### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Q06H		
Com port	RS232	RS485 4W, RS232	
Baud rate	115200	115200 only	
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

### **PLC Setting:**

Communication mode	

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhh	0~1FFF	Input Relay
В	Y	hhh	0~1FFF	Output Relay
В	М	dddd	0~8191	Internal Relay
В	L	dddd	0~8191	Latch Relay
В	F	dddd	0~2047	Annunciator
В	V	dddd	0~2047	Edge Relay
В	В	hhh	0~1FFF	Link Relay
В	ТС	ddd	0~2047	Timer Coil
В	SS	ddd	0~2047	Retentive Timer Contact
В	SC	ddd	0~2047	Retentive Timer Coil

WEINTEK PLC Connection Guid						
Bit/Word	Device Type	Format	Range	Memo		
В	CS	ddd	0~1023	Counter Contact		
В	CC	ddd	0~1023	Counter Coil		
В	SB	hhh	0~7FF	Special Link Relay		
В	S	dddd	0~8191	Step Relay		
В	DX	hhh	0~1FFF	Direct Input		
В	DY	hhh	0~1FFF	Direct Output		
В	TS	ddd	0~2047	Timer Contact		
W	W	hhh	0~1FFF	Link Register		
W	TN	ddd	0~2047	Timer Current Value		
W	SN	ddd	0~2047	Retentive Timer Current Value		
W	CN	ddd	0~1023	Counter Current Value		
W	R	ddddd	0~32767	File Register		
W	SW	hhh	0~7FF	Special Link Register		
W	Z	d	0~9	Index Register		
W	ZR	hhhh	0~FFFF	File Register		
W	D	ddddd	0~12287	Data Register		

ddd: Decimal, hhh: Hexadecimal, ooo: Octal.

## Wiring diagram:

RS-232:

MT8000 9P D-Sui	<b>RS232</b> B		_	Q02 CPU	2 J port	1_0_0_6
COM1	COM2	COM3		Min	i-DIN 6pin	$2 \left( 0 \sqcup 0 \right) 5$
3 TX	4 TX	7 TX		3	RXD	3 20 0 4
2 RX	6 RX	8 RX		4	TXD	MINI-DIN 6Pin
5 GND	5 GND	5 GND		5	GND	Female
			_	6	CTS	
				1	RTS	

Version	Date	Description of Changes
V1.40	Jun/03/2009	

## MITSUBISHI QJ71E71 (Ethernet)

Mitsubishi Q type, MELSEC-Q series PLC (Q00J, Q00, Q01, Q02, Q02H, Q06H, Q12H, Q25H, Q12PH, Q25PH) QJ71E71-100 Ethernet module.

http://www.mitsubishi-automation.com

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI QJ71E71		
	[V1.00]		
Com port	Ethernet		
PLC Station No.	2	1~99	
TCP/IP port	5002		

**Note:** MITSUBISHI QJ71E71 only supports PLC Network no. 1.

If PLC's Network no. is not 1, please use "MISTSUBISHI MELSEC-Q(Ethernet)" driver and fill in the Network no. in Parameter 1. Please refer MISTSUBISHI MELSEC-Q(Ethernet) for further information.

#### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	hhhh	0~1FFF	Input Relay
В	Y	hhhh	0~1FFF	Output Relay
В	М	dddd	0~8191	Internal Relay
В	L	dddd	0~8191	Latch Relay
В	F	dddd	0~2047	Annunciator
В	V	dddd	0~2047	Edge Relay
В	В	hhhh	0~1FFF	Link Relay
В	SB	hhhh	0~2047	Special Link Relay
В	DX	hhhh	0~1FFF	Direct Input
В	DY	hhhh	0~1FFF	Direct Output
W	W	hhhh	0~2FFF	Link Register
W	R	dddd	0~32767	File Register
W	SW	hhh	0~7FF	Special Link Register
W	Z	dd	0~15	Index Register
W	ZR	hhhh	0~FFFF	File Register
W	D	ddddd	0~12287	Data Register

Ddd: Decimal, hhh: Hexadecimal



### Wiring diagram:

Ethernet:

MT8000 Ethernet Wire color

RJ4	45		Switch RJ45
1	TX+	White/Orange	1 RX+
2	TX-	Orange	2 RX-
3	RX+	White/Green	3 TX+
4	BD4+	Blue	4 BD4+
5	BD4-	White/Blue	5 BD4-
6	RX-	Green	6 TX-
7	BD3+	White/Brown	7 BD3+
8	BD3-	Brown	8 BD3-



Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color

Modbus TCP Device R I45

Ethernet Hub or

RJ4	5		RJ45
1	TX+	White/Orange	3 RX+
2	TX-	Orange	6 RX-
3	RX+	White/Green	1 TX+
4	BD4+	Blue	4 BD4+
5	BD4-	White/Blue	5 BD4-
6	RX-	Green	2 TX-
7	BD3+	White/Brown	7 BD3+
8	BD3-	Brown	8 BD3-



QJ71E71-100 Ethernet module settings:

1. Use Q-CPU's USB or RS232 setting PLC parameters.



2. Click Operational setting to set IP information.

🏶 MELSOFT series GX Deve	loper C:\MELSEC\GPPW\QJ71E7	l - [Network parameters Setting the
Network parameter 🛛 🔀	<u>V</u> iew <u>O</u> nline <u>D</u> iagnostics <u>T</u> ools	<u>W</u> indow <u>H</u> elp
MELSECNET/Ethernet MELSECNET / MINI CC-Link Cancel		
Program     Device comment     Parameter     PIC paramete	Network type	Module 1
Network para	Starting I/O No.	0040
B Device memory Device init	Total stations	
STEP 2	Group No Station No	1
	Mode	On line 🗸 🗸
		Operational settings
		Initial settings

	Module 1	Module 2
Network type	Ethernet 🗸 🗸	None
Starting I/O No.	0040	
Network No.	1	
Total stations		
Group No.	1	
Station No.	1	
Mode	On line 🗸 🗸	
	Operational settings	
	Initial settings	
	Open settings	
	Router relay parameter	
	Station No.<->IP information	
	FTP Parameters	
	E-mail settings	
	Interrupt settings	

3. Select Ethernet (2.0) for communicating with HMI.

Ethernet operations	
Communication data code Binary code ASCII code	Initial timing Do not wait for OPEN (Communications impossible at STOP time) Always wan 101 OFEN ( Communication possible at STOP time
IP address Input format DEC. IP address 192	Send frame setting SETEP 3 168 10 105 C IEEE802.3
☞ Enable Write at RUN tin	ne TCP Existence confirmation setting Use the KeepAlive Use the Ping
	End Cancel

4. Click "Open settings" to set the system.

	Module 1	Module 2
Network type	Ethernet 🗸 🗸	None
Starting I/O No.	0040	
Network No.	1	
Total stations		
Group No.	1	
Station No.	1	
Mode	On line 🗸 🗸	
	Operational settings	
	Initial settings	
	STEP 4 Open settings	
	Router relay parameter	
	Station No.<->IP information	
	FTP Parameters	
	E-mail settings	
	Interrupt settings	

	Proto	icol	Open system		Fixed buffer	Fixed buffer communication procedure	Pairing open	Existence confirmation	Host station Port No.	Transmission target device IP address	Transmission target device Port No.
	TCP	+	MELSOFT connection	•	+	+	-	+			
6	TCP	+	MELSOFT connection	-	<b>•</b>	+	-	+			
	TCP	+	MELSOFT connection	+	<u> </u>	+	-	-			
8	TCP	+	MELSOFT connection	•		+	-	<b>•</b>			
i		+		•	+	+	-	<b>•</b>			
2_		+		•	+	+	-	•			
83	-	-		•	<b>*</b>	+	-	+			
<u> </u>	-	-		•		<b>•</b>	-	+			-
1		-		•	<b>•</b>	<u>•</u>	-	•	-		
0	-	-		•				•			
1	-	-		•	<b>•</b>		<b></b>	•			
2	-	-		•	<b>*</b>		-	•			
3	-	-		*	*	•	-				
4	÷	-		•	-	<u>•</u>	-	-			-
5	-	-		*		<u>•</u>	-	-			
5		-	1	*	<b>•</b>	•	•	•			

5. Press END to finish settings.

WEINTEK	PLC Connection Guide
etting / Already set ) Set if it is needed( No setting / Already set Start I/O No. : Please input the starting I/O No. of the module in HEX(16 bit) form	) d module ng other station access <b>STEP 5</b>
Routing parameters Assignment image Group Settings Check	End
	• •
Q02(H) Ethernet-192.168.10.105 Ov	rwrte

6. Restart PLC software and select [READ FROM PLC], click QCPU(Qmode) and press OK.

Select PLC series	X
PLC series	OK
STEP 6	Cancel

Select "Ethernet board" in PC Side I/F to set Network and Station no.. (the Station no.1 is PC's station no. not Ethernet module's, range from 2~64, the Network no. can not the same as PC's number)

PC side I/F Ethernet board setting	
Network No. 1 Station No. 1	OK Cancel
This is the layout setting layout for the Ethernet board. Pl following setting.	lease execute the
Network No: Network No. of Ethernet unit set in parame Station No.: Station No. that does not overlap on the sam	eter. 1e loop.
Protocol TCP 💌	

8. Select "Ethernet module" in PLC Side I/F to set QJ71E71's IP address.(IP address
= Network Parameter's IP address)

PLC side I/F detailed setting of Ethernet module							
PLC	QJ71E71	OK Cancel					
Network No. Station No.	1 1 STEP 8						
<ul> <li>IP address</li> <li>Host Name</li> </ul>	192 168 10 105 IP input format	DEC.					
Routing parameter transfer meth	od Automatic response system	•					

9. In "Other station", click "Other station(Single network)" setting "Check at communication time" and "Retry times".

Other station Detailed s	etting		
Check at communication time Retry times It is not possible to cancel	30 0 while com	sec. <b>STEP 9</b> times munication retrying.	OK Cancel

After finishing settings as above, click "Connection test" for testing the communication and sending the PLC's program.

Version	Date	Description of Changes
V2.10	Feb/05/2009	



## **MODBUS ASCII**

#### MODBUS ASCII CONTROLLER

http://www.modbus.org

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Modbus ASCII		
Com port	RS485	RS232/RS485	
Baud rate	9600	9600/19200/38400/57600/	
		115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1,2	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-255	

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

#### **PLC Setting:**

Communication mode	Modbus ASCII protocol
--------------------	-----------------------

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	0x	ddddd	1-65535	Output bit
В	1x	ddddd	1-65535	Input bit (read only)
В	3x_Bit	dddd(dd)	100-6553515	Input Register bit (read only)
В	4x_Bit	dddd(dd)	100-6553515	Output Register bit
W	3x	ddddd	1-65535	Input Register (read only)
W	4x	ddddd	1-65535	Output Register



#### Modbus RTU function code:

0x	0x01 Read coil	0x05 write si
1x	0x02 Read discrete input	N/A for write
3x	0x04 Read input register	N/A for write
4x	0x03 Read holding register	0x10 write m
3xbi	t is equivalent to 3x	

4xbit is equivalent to 4x

ingle coil e operation e operation

#### ultiple register

Modbus ASCII

#### Wiring diagram:

#### MODBUS RS232 PORT

#### MT8000 RS-232

#### 9P D-SUB

	9P D-SUB			Controller RS232
COM1	COM2	COM3		Port
3 TX	4 TX	7 TX		RXD
2 RX	6 RX	8 RX		TXD
5 GND	5 GND	5 GND		GND
			- 	RTS
				CTS

#### MODBUS RS422/485 PORT

MT8000	Modbus ASCII Controller
COM1 RS-485 4w	RS422 Port
1 RX-	TX-
2 RX+	TX+
3 TX-	RX-
4 TX+	RX+
5 GND	GND

#### MT8000 RS-485 2Wire

#### 9P D-SUB

Modbus ASCII

Controller RS485

COM1	COM3	
1 RX-	6 Data-	D-
2 RX+	9 Data+	D+
5 GND	5 GND	GND



Version	Date	Description of Changes
V1.40	Apr/17/2009	
# **MODBUS RTU**

### MODBUS RTU CONTROLLER

### http://www.modbus.org

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Modbus RTU		
Com port	RS485	RS232/RS485	
Baud rate	9600	9600~115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1,2	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-255	

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

### **PLC Setting:**

Communication mode	Modbus RTU protocol
--------------------	---------------------

Bit/Word	Device Type	Format	Range	Memo
В	0x	ddddd	1-65535	Output bit
В	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
В	1x	ddddd	1-65535	Input bit (read only)
В	3x_Bit	dddd(dd)	100-6553515	Input Register bit (read only)
В	4x_Bit	dddd(dd)	100-6553515	Output Register bit
В	6x_Bit	dddd(dd)	100-6553515	Output Register bit
W	3x	ddddd	1-65535	Input Register (read only)
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x double word swap
W	6x	ddddd	1-65535	4x single word write
W	4x_32Bit	ddddd	1-65535	4x High/low byte swap



NOTE:

Address type "5x" are mapping to Hold Reg. The communication protocol of 5x is almost same as "4x" except "5x" making double word swap.

Address	1	2	3	4	5	6	
Data in word	0x1	0x2	0x3	0x4	0x5	0x6	
Data	0x20	0001	0x40	0003	0x60	0005	

If 4x has following information

TOI JA. IL DUCUIIL	For	5x.	it	become
--------------------	-----	-----	----	--------

Address	1	2	3	4	5	6	
Data in word	0x2	0x1	0x4	0x3	0x6	0x5	
Data	0x10	0002	0x30	0004	0x50	0006	

Modbus RTU function code:

0x	0x01 Read coil	0x05 write single coil
0x_n	nulti_coils 0x01 Read coil	0x0f write multiple coil
1x	0x02 Read discrete input	N/A for write operation
3x	0x04 Read input register	N/A for write operation
4x	0x03 Read holding register	0x10 write multiple register
5x	0x03 Read holding register	0x10 write multiple register
( not	e: reverse word order in double wor	rd format)
2 1 .	· · · · · · · · · · · · · · · · · · ·	

3xbit is equivalent to 3x

4xbit is equivalent to 4x

0x03 Read holding register 0x06 write single register 6x

(note: use 6x device is limited to device of one word only)

### Wiring diagram:

#### MODBUS RS232 PORT

MT8000 RS-232

#### Modbus RTU

Controller RS232

	9P D-SUB			Controller RS232
COM1	COM2	COM3	-	Port
3 TX	4 TX	7 TX		RXD
2 RX	6 RX	8 RX		TXD
5 GND	5 GND	5 GND		GND
				RTS
				CTS



#### MODBUS RS422/485 PORT

3

4

5

TX-

TX+

GND

MT8000	
COM1 RS-485 4w	
1 RX-	]
2 RX+	

#### Modbus RTU Controller

RS422 Port
TX-
TX+
RX-
RX+
GND

#### MT8000 RS-485 2Wire

#### Modbus RTU

9P D-SUB

Controller	<b>RS485</b>

COM1	COM3
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

Version	Date	Description of Changes
V1.70	Aug/26/2009	
V1.80		To turn LB9200 off when return code is error.
V1 00	Dec/24/2000	Fixed when receiving data from modbus rtu over 8 bytes, LW9570
V1.90	Dec/24/2009	can not calculate correctly.

# MODBUS RTU (0x/1x Range Adjustable)

#### MODBUS RTU CONTROLLER

http://www.modbus.org

### HMI Setting:

Parameters	Recommendation	Options	Notes
PLC Type	Modbus RTU		
Com Port	RS485	RS232/RS485	
Baud Rate	9600	9600/19200/38400/57600/	
		115200	
Parity Bit	Even	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1,2	
HMI Station	0		Does not apply to this protocol
No.			
PLC Station	1	0-255	
No.			

Online Simulator	YES
Extend Address Mode	YES

### **PLC Setting:**

Communication Mode Modbus RTU protocol

Bit/Word	Device Type	Format	Range	Memo
В	0x	ddddd	1-65535	Output Bit
В	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
В	1x	ddddd	1-65535	Input Bit (read only)
В	3x_Bit	dddd(dd)	100-6553515	Input Register Bit (read only)
В	4x_Bit	ddddd(dd)	100-6553515	Output Register Bit
W	3x	ddddd	1-65535	Input Register (read only)
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x Double Words Swap
W	6x	ddddd	1-65535	4x Single Word Write



#### NOTE:

Address type "5x" is mapping to Hold Reg. The communication protocol of "5x" is almost same as "4x" except that "5x"makes double words swap.

If 4x contains the following information:

Address	1	2	3	4	5	6	
Data in	0x1	0x2	0x3	0x4	0x5	0x6	
word							
Data	0x200	001	0x400	003	0x600	005	

For 5x, it becomes:

Address	1	2	3	4	5	6	
Data in	0x2	0x1	0x4	0x3	0x6	0x5	
word							
Data	0x100	02	0x300	)04	0x500	006	

Modbus RTU function code:

- 0x0x01 Read coil0x05 Write single coil0x\_multi\_coils 0x01 Read coil0x0f Write multiple coil
- 1x 0x02 Read discrete input
- 3x 0x04 Read input register
- 4x 0x03 Read holding register
- 5x 0x03 Read holding register

0x0f Write multiple coil N/A for writing operation N/A for writing operation 0x10 Write multiple register 0x10 Write multiple register

(Note: reverse word order in double words format)

3xbit is equivalent to 3x

4xbit is equivalent to 4x

6x 0x03 Read holding register

0x06 write single register

(Note: using 6x device is limited to device of one word only)

### **Setting Illustrations:**

1. Go to [System Parameter Settings] 🙆 , click [New] to add a new device -Modbus

RTU (0x 1x range adjustable) , as shown below:

Model Name Local HMI MODBUS R TU (0x/.	Location Local	Device typ MT6070iH MODBUS I	5 ystem 0e /M T8070 R TU (0x/	Interface Disable COM1 (9600,1	VF P N/A N,8,1) RS48	rota 5 2
Name Local HMI MODBUS R TU (0x/.	Location Local	Device typ MT6070iH MODBUS I	0e /MT8070 RTU (0x/	Interface Disable COM1 (9600,1	I/F P N/A N,8,1) RS48	rota 5 2
Local HMI MODBUS RTU (0.4/ .	Local Local	MT6070iH/ MODBUS I	<b>/MT8070</b> R TU (0x/	Disable COM1 (9600,1	<mark>N/A</mark> N,8,1) RS48	52
MODBUS RTU (0.w).	Local	MODBUSI	RTU (0x/	COM1 (9600,)	N,8,1) RS48	52

- 2. After adding Modbus RTU (0x 1x Range Adjustable) driver, [Add Address Range Limit] button will be enabled as below. Users can set maximum read/write command size here.
  - > Max.read-command size (words): Pull down to select PLC reading range.

Max. read-command size (words) : 1

> Max.write-command size (words): Pull down to select PLC writing range.

Max. write-command size (words) : 1

Note: Setting [Add Address Range Limit] is enabled only when bit address is not a multiple of 16bit.

evice Properties	
Name : MODBUS RTU (0x/1x Range Adjustable)	
○HMI  ●PLC Location : Local  Settings	
PLC type : MODBUS RTU (0x/1x Range Adjustable)	~
V.1.10, MODBUS_RTU_RANGE_ADJUST.so	
PLC I/F : RS-485 2W V PLC default station no. : 20	
COM : COM1 (9600,N,8,1) Settings.	
Interval of block pack (words) : 0 Add Address Range Limit	
Max. read-command size (words) : 1	
Max. write-command size (words) ; 1	
OK Cance	a

 Click [Add Address Range Limit] button, Users can define 0x and 1x address range in [0x 1x Address Range] dialogue box, referring to bit range of the device used.

10.	Station no.	Device type	Max. address	
ŝ. 1	20	0x	36	
2	2	0x	51	

Add : Set [Station No.], [Device Type], [Max. Address] then click [OK] to finish adding as below:

Station no. :	20	*
Device type :	0x	~
Max. address :	36	

Delete : The selected items will be deleted.

Settings : Set [Station No.], [Device Type], [Max. Address] then click [OK] to finish adding as below:



k/1x Address Range		Þ
Station no. :	3	~
Device type :	0x	~
Max. address :	51	
ок	Can	cel

Example :

Take D2 and D8 of SCON as example, the settings depend on maximum bit range of different PLC types. Set [Station No.] and address first.

For D2, set [Station No.] to 20, [Device Type] 0x, [Max. Address] 36.

For D8, set [Station No.] to 2, [Device Type] 0x, [Max. Address] 51.

No.	Station no.	Device type	Max. address	
	20	0x	36	
	2	0x	51	

Note: If connecting with 2 or more PLC, click [Settings] in [Device Properties], and set **4** to [Turn around delay] as below.

COM :	COM 1	Timeout (sec) :	1.0
Baud rate :	9600 🗸	Turn around delay (ms) :	5
Data bits :	8 Bits 💌	Send ACK delay (ms) :	0
Parity :	None 💌	Parameter 1 :	0
Stop bits :	1 Bit 💌	Parameter 2 :	0
		Parameter 3 :	0

After completing all settings above, users can now communicate with the devices.

### Wiring diagram:

#### MODBUS RS232 PORT

M	T8000 RS	6-23	32				Modbus RTU
9F	PD-SUB						Controller RS232
C	OM1	С	DM2	С	DM3	-	Port
3	ТХ	4	ТХ	7	ТХ	]	RXD
2	RX	6	RX	8	RX		TXD
5	GND	5	GND	5	GND		GND
						- [	RTS
						l	CTS

#### MODBUS RS422/485 PORT

MT8000

#### Modbus RTU Controller

RS422 Port

CC	0M1 RS-485 4w	RS422 Port
1	RX-	TX-
2	RX+	TX+
3	TX-	RX-
4	TX+	RX+
5	GND	GND



9P D-SUB

Modbus RTU Controller RS485

СС	OM1	COM3	
1	RX-	6 Data-	D-
2	RX+	9 Data+	D+
5	GND	5 GND	GND

# **MODBUS RTU (zero-based addressing)**

### MODBUS RTU CONTROLLER

### http://www.modbus.org

### **HMI Setting:**

Parameters	ters Recommend Option		Notes
PLC type	Modbus RTU		
Com port	RS485	RS232/RS485	
Baud rate	9600	9600~115200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1,2	
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	1	0-255	

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

### **PLC Setting:**

Communication mode	Modbus RTU protocol
--------------------	---------------------

Bit/Word	Device Type	Format	Range	Memo
В	0x	ddddd	0-65535	Output bit
В	1x	ddddd	0-65535	Input bit (read only)
В	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
В	3x_Bit	dddd(dd)	0-6553515	Input Register bit (read only)
В	4x_Bit	dddd(dd)	0-6553515	Output Register bit
W	3x	ddddd	0-65535	Input Register (read only)
W	4x	ddddd	0-65535	Output Register
DW	5x	ddddd	0-65535	4x double word swap
W	6x	ddddd	0-65535	4x single word write



NOTE:

Address type "5x" are mapping to Hold Reg. The communication protocol of 5x almost same as "4x" except "5x"making double word swap.

	-						
Address	1	2	3	4	5	6	
Data in word	0x1	0x2	0x3	0x4	0x5	0x6	
Data	0x20	0001	0x40	0003	0x60	0005	

If 4x have following information

TOI JA. IL DUCUIIL	For	5x.	it	become
--------------------	-----	-----	----	--------

Address	1	2	3	4	5	6	
Data in word	0x2	0x1	0x4	0x3	0x6	0x5	
Data	0x10002		0x30004		0x50	0006	

Modbus RTU function code:

0x	0x01 Read coil	0x05 write single coil					
0x_mu	lti_coils 0x01 Read coil	0x0f write multiple coil					
1x	0x02 Read discrete input	N/A for write operation					
3x	0x04 Read input register	N/A for write operation					
4x	0x03 Read holding register	0x10 write multiple register					
5x	0x03 Read holding register	0x10 write multiple register					
(Note: reverse word order in double word format)							
3xbit i	3xbit is equivalent to 3x						

4xbit is equivalent to 4x

6x 0x03 Read holding register 0x06 write single register

(Note: use 6x device is limited to device of one word only)

### Wiring diagram:

#### MODBUS RS232 PORT

MT8000 RS-232 9P D-SUB

#### Modbus RTU

Controller RS232

COM1	COM2	COM3		Port
3 TX	4 TX	7 TX		RXD
2 RX	6 RX	8 RX		TXD
5 GND	5 GND	5 GND		GND
			- 	RTS
				CTS



#### MODBUS RS422/485 PORT

MT8000	Modbus RTU Controller
COM1 RS-485 4w	RS422 Port
1 RX-	TX-
2 RX+	TX+
3 TX-	RX-
4 TX+	RX+
5 GND	GND

Modbus RTU

9P I	D-SUB	_	Controller RS485
COM1	COM3		
1 RX-	6 Data-		D-
2 RX+	9 Data+		D+
5 GND	5 GND		GND

Note: MODBUS RTU (adjustable) usage

Users can decide the address range via setting value on Parameter 1. For example, when users set 5 to Parameter 1, the address range become 5~65535.

PLC Connection Guide

)evice list :								
No.	Name			Loca	tion [	)evice type		
Local HMI	Local HM	ſI		Local	Þ	1T6104T/MT	8080 T/M	1T8104T (6
Local PLC 1	MODBU:	S R TU (Ad	ustable)	Local	Þ	IODBUS RT	U (Adjus	table)
vice Prop	erties							
	Name : N	MODBUS F	TU (Adjusta	ble)				
	C	HMI	<b>⊙</b> PLC					
L	ocation : I	ocal.	~	Settings				
			in the second second					
PL	,C type : 🚺	MODBUS F	TU (Adjusta	ble)				~
	V	.1.10, MOI	DBUS_RTU_	ADJUST.so				]
I	PLC I/F : F	RS-232	~	PLC	defau	lt station no.	: 1	
	сом С	OM1 (960)	),E.8.1)				Sett	ings
Contra		1. 200						<b>L</b>
COMP	ort Settin	gs						<b>X</b> (
	COM :	COM 1	-		Time	eout (sec) : [	10	~
F	Baud rate	9600	~	Tum ar	h havo	elav (ms) :	)	1000
	Data hits	8 Bits		Send	ACKA	elav (ms)	1)	
	Parity	Fuen		0010	Pa	rameter 1 ·	3	
	Stop hits	1 D24			Da	remeter 2 · 1	1	
	Suppris.	1 Dit			ra		-	
					Pat	rameter 3 : [	1. 1.	

Version	Date	Description of Changes
V1.30	Aug/26/2009	

# **MODBUS Server (Modbus RTU Slave)**

### **HMI Setting:**

Parameters	Recommend	Option	Option	Notes
PLC type	Modbus Server			
Com port	RS232	RS232, RS485	Ethernet	
Baud rate	9600	9600~115200		
Parity bit	Even	Even, Odd, None		
Data Bits	8	8		
Stop Bits	1	1		
HMI Station No.	0		0	
PLC Station No.	1	1-31	0	HMI Modbus station No.
Port no.			502	

Online Simulator	YES	Extend address mode	NO
Broadcast command NO			

### **PLC Setting:**

Communication mode	Modbus RTU protocol
--------------------	---------------------

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	LB	dddd	0~9998	Mapping to 0x/1x 1~9999
W	LW	dddd	0~9998	Mapping to 3x/4x 1~9999
W	RW	ddddd	0~55536	Mapping to 3x/4x 10000~65536

LB0 = 0x0001, LB1 = 0x0002, LW0 = 3x0001, LW1 = 3x0002

Modbus RTU Server doesn't support function Code 06(to preset single register), please use function code 16(0x10, preset multiple register).



RS-232:

	MT8000 RS2	.32	Modbus RTU RS232 9P D-SUB
	9P D-SUB		
COM1	COM2	COM3	
3 TX	4 TX	7 TX	RX
2 RX	6 RX	8 RX	TX
5 GND	5 GND	5 GND	GND

RS-485:

#### MT8000 RS485 2w

#### 9P D-SUB

Modbus RTU RS-485 9P D-SUB

COM1	COM3	
1 RX-	6 Data-	Data-
2 RX+	9 Data+	Data+
5 GND	5 GND	GND

Precaution: Setting more than one Modbus server in HMI device list is useless.

Version	Date	Description of Changes
V1.00	Dec/30/2008	



# **MODBUS TCP/IP (Ethernet)**

Modbus RTU TCP/IP device.

http://www.modbus.org

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MODBUS TCP/IP		
Com port	Ethernet		
HMI Station No.	0	Does not apply	
PLC Station No.	1	0~255	
TCP/IP port	502		

## **PLC Setting:**

Communication mode	

Bit/Word	Device Type	Format	Range	Memo
В	1x	ddddd	1-65535	Output bit
В	0x	ddddd dd	1-65535	Input bit
В	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
В	3x_bit	ddddd dd	100-6553515	Input Register bit (read only)
В	4x_bit	ddddd dd	100-6553515	Output Register bit
В	6x_bit	Ddddd dd	100-6553515	Output Register bit
W	3x	ddddd	1-65535	Input Register
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x double word swap
W	6x	ddddd	1-65535	4x single word write



### Ethernet:

MT8000 Ethernet RJ45		Wire color		Ethernet Hub or Switch RJ45	
1	TX+	White/Orange		1	RX+
2	TX-	Orange		2	RX-
3	RX+	White/Green		3	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		6	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-



#### Ethernet: Direct connect (crossover cable)

MT8000 Ethernet		Wire color		Modbus TCP Device	
<b>RJ45</b>			_	RJ45	
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-



# **MODBUS TCP/IP (zero-based addressing)**

Modbus RTU TCP/IP device.

http://www.modbus.org

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	MODBUS TCP/IP		
Com port	Ethernet		
HMI Station No.	0	Does not apply	
PLC Station No.	0	0~255	
TCP/IP port	502		

### **PLC Setting:**

Communication mode	

Bit/Word	Device Type	Format	Range	Memo	
В	0x	ddddd	0-65535	Output bit	
В	1x	ddddd dd	0-65535	Input bit (read only)	
В	3x_bit	ddddd dd	0-6553515	Input Register bit (read only)	
В	4x_bit	ddddd	0-6553515	Output Register bit	
W	3x	ddddd	0-65535	Input Register (read only)	
W	4x	ddddd	0-65535	Output Register	
DW	5x	ddddd	0-65535	4x double word swap	



### Ethernet::

MT8000 Ethernet		Wire color	Ethernet Hub or Switcl	
RJ45			RJ45	
1	TX+	White/Orange	 1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	 6	TX-
7	BD3+	White/Brown	 7	BD3+
8	BD3-	Brown	8	BD3-



### Ethernet: Direct connect (crossover cable)

MT8000 Ethernet		Wire color		Modb	ous TCP Device
RJ45					RJ45
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown	]	8	BD3-

Version	Date	Description of Changes
V1.40	Aug/27/2009	



# **MODBUS TCP/IP 32Bit**

### Modbus RTU TCP/IP device.

http://www.modbus.org

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MODBUS TCP/IP		
Com port	Ethernet		
HMI Station No.	0	Does not apply	
PLC Station No.	1	0~255	
TCP/IP port	502		

## PLC Setting:

Communication mode	Communication mode	
--------------------	--------------------	--

Bit/Word	Device Type	Format	Range	Memo
В	1x	ddddd	1-65535	Output bit
В	0x	ddddd dd	1-65535	Input bit
В	0x_multi_coils	ddddd	1-65535	Write Multiple Coils
В	3x_bit	ddddd dd	100-6553515	Input Register bit (read only)
В	4x_bit	ddddd dd	100-6553515	Output Register bit
В	6x_bit	ddddd dd	100-6553515	Output Register bit
W	3x	ddddd	1-65535	Input Register
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x double word swap
W	6x	ddddd	1-65535	4x single word write
W	4x_32Bit	ddddd	1-65535	4x High/low byte swap



### Ethernet:

MT80 RJ45	00 Ethernet	Wire color	Ethern RJ45	et Hub or Switch
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-



### Ethernet: Direct connect (crossover cable)

MT80 RJ45	00 Ethernet	Wire color	_	Modbu RJ45	us TCP Device
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-



## **Moeller XC-CPU101**

MOELLER XC100/200 series

http://www.moeller.net

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Moeller XC-CPU101		
Com port	RS232		
Baud rate	38400	4800~57600	
Parity bit	None		
Data Bits	8		
Stop Bits	2		
HMI Station No.	0		
PLC Station No.	0		

### **PLC Setting:**

Communication mode

### **Device address:**

Bit/Word	Device Type	Format	Range	
В	QX	ddo	dd:0~15, o:0~7	
В	IX	ddo	dd:0~15, o:0~7	
W	MW	dddd	1~4095	
W	QW	dd	0~15	
W	IW	dd	0~15	

### Wiring diagram:

RS-232:

MT8000 RS232 9P D-SUB



	9r D-30	D				
COM1	COM2	COM3				
3 TX	4 TX	7 TX		8	RD	
2 RX	6 RX	8 RX	]	5	TD	RJ45
5 GND	5 GND	5 GND	]	4	GND	



Version	Date	Description of Changes
1.00	Apr/01/2010	



# **Modicon Twido**

http://www.modicon.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Modbus RTU		Support Extended Address mode.
Com port	RS485	RS232/RS485	Must match the PLC's port setting.
Baud rate	19200	19200	Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	8	Must set 8 for RTU mode
Stop Bits	1	1	Must set 8 for RTU mode
HMI Station No.	0		Does not apply to this protocol.
PLC Station No.	1	0-247	Must match the PLC's port setting.

### **PLC Setting:**

Communication mode	19200, None, 8, 1
Select	Modbus RTU Slave

Bit/Word	Device Type	Format	Range	Memo
В	0x or 1x	dddd	0~9999	%Mi
W	3x or 4x	dddd	0~9999	%MWi

<b>Port 1 RS48</b> 8P mini-din F	MT8000 RS-485 9P D-SUB				
	COM3	COM1			
2 B	6 Data-	1 RX-			
1 A	9 Data+	2 RX+			
5 D	5 GND	5 GND			
7 GN					

85 port Female

8Pin miniDin Female

#### MT8000 RS-485 9P D-SUB

COM1	COM3	
1 RX-	6 Data-	B(-)
2 RX+	9 Data+	A(+)
5 GND	5 GND	GND

#### MT8000 RS232 9P D-SUB Female

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Port2 RS232 9P D-SUB Female

Port2 RS485 port 3Pin Terminal

COM1	COM2	COM3		
3 TX	4 TX	7 TX	2	RX
2 RX	6 RX	8 RX	3	TX
5 GND	5 GND	5 GND	5	GND

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# **OEMAX Series**

#### OEMax NX7/NX7s Controllers.

http://www.oemax.co.kr

## HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	OEMAX series		
Com port	RS232		
Baud rate	9600	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	0		

## **PLC Setting:**

Communication mode	

Bit/Word	Device Type	Format	Range		Memo
В	R	ddd(dd)	ddd:0~255	(dd): 0~15	
В	L	ddd(dd)	ddd:0~255	(dd): 0~15	
В	М	ddd(dd)	ddd:0~1999	(dd): 0~15	
В	К	ddd(dd)	ddd:0~255	(dd): 0~15	Keep contact
В	F	ddd(dd)	ddd:0~991	(dd): 0~15	Special contact
В	ТС	ddd	ddd: 0~255		Timer/Counter
W	W	ddd	ddd:0~7999		Data register
W	SV	ddd	ddd:0~255		Timer/Counter Set Value
W	PV	ddd	ddd:0~255		Timer/Counter Preset Value
W	SR	ddd	ddd:0~255		Special register
W	WR	ddd	ddd:0~255		
W	WL	ddd	ddd:0~255		
W	WM	ddd	ddd:0~1999		
W	WK	ddd	ddd:0~255		
W	WF	ddd	ddd:0~991		



RS-232:

MT8000 RS232 9P D-SUB

PLC Port1 RS232 9P D-SUB Female

			 9P D-SUB	Female
COM1	COM2	COM3		
3 TX	4 TX	7 TX	 3	RXD
2 RX	6 RX	8 RX	2	TXD
5 GND	5 GND	5 GND	5	GND

# **OMRON C/CQM1 Series**

OMRON C, CPM, CPL, CQM Series (Host Link Protocol), http://oeiweb.omron.com/oei/Products-PLC.htm

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	OMRON C/CQM1		
	Series		
Com port	RS232	RS232, RS422, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	2	1 or 2	
HMI Station No.	0		
PLC Station No.	0	0-31	Host Link Station No.

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

### **PLC Setting:**

Communication mode	Host Link protocol

Bit/Word	Sit/Word Device Type		Range	Memo
В	IR	dddd(dd)	0-409515	I/O and internal Relay
В	HR	dddd(dd)	0-409515	Hold Relay
В	LR	dddd(dd)	0-409515	Link Relay
В	IR (Force Set/Reset)	dddd(dd)	0-409515	
В	HR(Force Set/Reset)	dddd(dd)	0-409515	
В	LR(Force Set/Reset)	dddd(dd)	0-409515	
В	AR	ddd(dd)	0-409515	Auxiliary Relay
W	AR_W	dddd	0-4095	
W	IR W	dddd	0-4095	

	WEINTEK P						
W	HR_W	dddd	0-4095				
W	LR_W	dddd	0-4095				
W	TC	ddd	255				
W	DM	dddd	9999	Data register			

#### CPU Port(CPM2A,CQM1/1H,C200H/HS/ALPHA series)

Communication Module:

CPM1-CIF01 adapter(for CPM1/CPM1A/CPM2A series,CQM1/CQM1H series) CPM1H-SCB41 communication module(for CQM1H-CPU51/61)

MT8000 RS232

9P D-SUB Female

COM1	COM2	COM3	
3 TX	4 TX	7 TX	
2 RX	6 RX	8 RX	
5 GND	5 GND	5 GND	

3	RD
2	SD
9	GND
4	RS
5	CS

OMRON

CPU RS-232 9P

**D-SUB** Female

OMRON

CPU RS-232 9P

**D-SUB** Female

CS

5

#### C200h-LK201,3G2A6-LK201 communication module C200HW-COM02/03/04/05/06 communication module

#### MT8000 RS232

9P D-SUB Female

COM1	COM2	COM3			
3 TX	4 TX	7 TX		3	RD
2 RX	6 RX	8 RX		2	SD
5 GND	5 GND	5 GND		7	GND
			- 	Δ	RS

Version	Date	Description of Changes
V1.60	Sep/25/2009	



# **OMRON CJ1/CS1**

OMRON CP1L, CP1H, CJ1M, CJ1H, CJ1G, CS1H and CS1G. (Host Link Protocol FINS command), this driver supports Extend Addressing mode. http://oeiweb.omron.com/oei/Products-PLC.htm

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	OMRON CJ1/CS1		
Com port	RS232	RS232, RS422, RS485	
Baud rate	9600	9600~115200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7 or 8	
Stop Bits	2	1 or 2	
HMI Station No.	0		
PLC Station No.	0	0-31	Host Link Station No.

Online Simulator	YES	Extend address mode	YES
Broadcast command	NO		

### **PLC Setting:**

Communication mode Host Link protocol
---------------------------------------

Bit/Word	Device Type	Format	Range	Memo
Bit	D_bit	ddd(dd)	ddd:0~32767 (dd): 0~15	Data Memory (DM)
Bit	H_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Holding Area (HR)
Bit	W_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Work Area (WR)
Bit	CIO_bit	ddd(dd)	ddd:0~6143 (dd): 0~15	Channel I/O (CIO)
Bit	A_bit	ddd(dd)	ddd:0~959 (dd): 0~15	Auxiliary Relay (AR)
Bit	T_bit	ddd	ddd:0~4095	Timer (TIM)
Bit	C_bit	ddd	ddd:0~4095	Counter (CNT)
Word	D	ddd	ddd:0~32767	Data Memory (DM)
Word	Н	ddd	ddd:0~511	Holding Area (HR)

	WEINTEK PLC Connection Guide.							
Bit/Word	Device Type	Format	Range	Memo				
Word	W	ddd	ddd:0~511	Work Area (WR)				
Word	CIO	ddd	ddd:0~6143	Channel I/O (CIO)				
Word	А	ddd	ddd:0~959	Auxiliary Relay (AR)				
Word	Т	ddd	ddd:0~4095	Timer (TIM)				
Word	С	ddd	ddd:0~4095	Counter (CNT)				
Word	EM0~EMC	dddd	dddd:0-6149	Extend Memory				

RS-232:

	MT8000 RS232 9P D-SUB Fema	le	OMI CPU RS D-SUB	RON S-232 9P Female
COM1	COM2	COM3		
3 TX	4 TX	7 TX	3	RD
2 RX	6 RX	8 RX	2	SD
5 GND	5 GND	5 GND	9	GND
			4	RS
			5	CS

### CP1H/CP1L CP1W-CIF11 RS422

MT8000

COM1 [RS-485] 4w

CP1W-CIF11 RS422 Port



9P D-SUB Male

1 RX-		SDA	CP1W-CIF1
2 RX+		SDB	SW1 ON N□ OFF
3 TX-		RDA	
4 TX+		RDB	
5 GND	]	FG	

Version	Date	Description of Changes
V1.40	Arp/17/2009	

# **OMRON CJ1/CS1 (Ethernet)**

### OMRON CJ1M, CJ1H, CJ1G, CS1H and CS1G. (Ethernet FINS), http://oeiweb.omron.com/oei/Products-PLC.htm

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	OMRON CJ1/CS1		
	(Ethernet)		
Com port	Ethernet		
TCP port	9600		
HMI Station No.	0		
PLC Station No.	0		

### **PLC Setting:**

Communication mode	FINS Ethernet protocol

Bit/Word	Device Type	Format	Range	Memo	
В	D_bit	ddddd(dd)	ddd:0~32767 (dd): 0~15	Data Memory (DM)	
В	H_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Holding Area (HR)	
В	W_bit	ddd(dd)	ddd:0~511 (dd): 0~15	Work Area (WR)	
В	CIO_bit	dddd(dd)	ddd:0~6143 (dd): 0~15	Channel I/O (CIO)	
В	A_bit	ddd(dd)	ddd:0~959 (dd): 0~15	Auxiliary Relay (AR) (Read only)	
В	T_bit	dddd	ddd:0~4095	Timer (TIM)	
В	C_bit	dddd	ddd:0~4095	Counter (CNT)	
W	D	ddddd	ddd:0~32767	Data Memory (DM)	
W	Н	ddd	ddd:0~511	Holding Area (HR)	
W	W	ddd	ddd:0~511	Work Area (WR)	
W	CIO	dddd	ddd:0~6143	Channel I/O (CIO)	
W	А	ddd	ddd:0~959	Auxiliary Relay (AR) (Read only)	
W	Т	dddd	ddd:0~4095	Timer (TIM)	
W	С	dddd	ddd:0~4095	Counter (CNT)	



Ethernet:

MT8(	000 Ethernet	Wire color	Ethernet Hub or Swi	tch
RJ45			RJ45	
1	TX+	White/Orange	1 RX+	1 8
2	TX-	Orange	2 RX-	RJ45
3	RX+	White/Green	3 TX+	connector
4	BD4+	Blue	4 BD4+	
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	

### Ethernet: Direct connect (crossover cable)

MT80	00 Ethernet	Wire color		OMRC	<b>DN Ethernet</b>
RJ45				RJ45	
1	TX+	White/Orange		3	RX+
2	TX-	Orange	-	6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-



7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Version	Date	Description of Changes
V1.00	Dec/30/2008	




# **OMRON E5CN**

OMRON E5CN series Temperature controller with communication option.

E5EN/CN/GN series

http://oeiweb.omron.com

### HMI Setting:

Parameters Recommend		Option	Notes
PLC type OMRON E5CN			
Com port	RS485 2W		
Baud rate	9600	9600/19200/38400/57600	
		/115200	
Parity bit	Even	Even, Odd, None	
Data Bits 7		7,8	
Stop Bits 2		1,2	
HMI Station No. 0			Does not apply to this protocol
PLC Station No.	0	0-99	

Online Simulator	YES	Broadcast command	YES
Extend address mode	YES		

### **PLC Setting:**

Communication mode	9600, Even, 7, 2 (default)
--------------------	----------------------------

Bit/Word	Device Type	Format	Range	Memo
В	Status	dd	0-31	Page40
DW	C0	hhhh	0-5	Read only (Hex) Page34
DW	C1	hhhh	0-1C	Read/Write (Hex) Page35
DW	C3	hhhh	0-1D	Read/Write (Hex) Page36
W	Operation00_00	hh	0	Communications writing OFF (disabled)
W	Operation00_01	hh	0	Communications writing ON(Enabled)
W	Operation01_00	hh	0	Run
W	Operation01_01	hh	0	Stop
W	Operation02_00	hh	0	Multi-SP Set point 0

WEINTEK PLC Connection Guid					
Bit/Word	Device Type	Format	Range	Memo	
W	Operation02_01	hh	0	Multi-SP Set point 1	
W	Operation02_02	hh	0	Multi-SP Set point 2	
W	Operation02_03	hh	0	Multi-SP Set point 3	
W	Operation03_00	hh	0	AT cancel	
W	Operation03_01	hh	0	AT execute	
W	Operation04_00	hh	0	Write mode (Backup)	
W	Operation04_01	hh	0	Write mode (Ram)	
W	Operation05_00	hh	0	Save RAM data	
W	Operation06_00	hh	0	Software reset	
W	Operation07_00	hh	0	Move to setup area 1	
W	Operation08_00	hh	0	Move to protect level	

### Wiring diagram:

MT8000 RS-485 2Wire

9P D-SUB

 COM1
 COM3

 1
 RX 6
 Data 12
 B

 2
 RX+
 9
 Data+
 11
 A

 5
 GND
 5
 GND
 GND

**OMRON E5CN** 

Version	Date	Description of Changes
V1.20	Sep/16/2009	



# **Panasonic FP**

NAIS(Matsushita) FP series include FP-X, FP-Σ, FP0, FP1, FP2, FP2SH, FP10SH and FP3 Ethernet support FP-X with AFPX-COM5.

http://pewa.panasonic.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Panasonic FP		
Com port	RS232	RS232/RS485 Ethernet	Must match the PLC's port setting.
Baud rate	9600	9600, 19200, 38400, 57600,	Must match the PLC's port setting.
		115200	
Parity bit	Odd	Even, Odd, None	Must match the PLC's port setting.
Data Bits	Data Bits87 or 8		Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
HMI Station No.	0	0-255	Does not apply to this protocol.
PLC Station No.	1	0-255	Must match the PLC's port setting.
			FP3 must set 0.

### **PLC Setting:**

Communication	9600,O,8,1(default)
mode	

Bit/Word	Device Type	Format	Range	Memo
В	Х	dddd(h)	0~9999F	Input(X)
В	Y	dddd(h)	0~9999F	Output(Y)
В	R	dddd(h)	0~9999F	Internal Relay(R)
В	L	dddd	0~9999	Link Relay(L)
В	L_Bit	dddd(h)	0~9999F	
В	Т	dddd	0~9999	Timer(T)
В	С	dddd	0~9999	Counter(C)
W	SV	dddd	0~9999	Timer/Counter set value(SV)
W	EV	ddddd	0~65535	Timer/Counter elapse value(EV)

WEINTEK PLC Connection Guide						
W	DT	ddddd	0~99999	Data Register(DT)		
W	LD	dddd	0~8447	Link Register(LD)		
W	WX	dddd	0~9999	Input(WX) (read only)		
W	WY	dddd	0~9999	Output(WY)		
W	WR	dddd	0~9999	Internal Relay(WR)		
W	WL	dddd	0~9999	Link Relay(WL)		
W	FL	ddddd	0~99999	File register(FL)		
-		-				

### Wiring diagram:

COM1

3 TX

5 GND

2 RX

#### MT8000 RS232

#### 9P D-SUB

COM2

4 TX

6 RX

5 GND

FP0, FP2, FP2SH,FPM CPU Tool port 5P mini DIN RS-232

3 RXD

1 GND

TXD



Mini Din 5 Pin
Female

MT8000 RS232

#### FP0 CPU RS232

2

9P D-SUB				3P terminal
COM1	COM2	COM3		
3 TX	4 TX	7 TX	]	R
2 RX	6 RX	8 RX		S
5 GND	5 GND	5 GND	]	G

COM3

7 TX

8 RX

5 GND

#### MT8000 RS232

#### 9P D-SUB

COM1 COM2 COM3	
3 TX 4 TX 7 TX	
2 RX 6 RX 8 RX	
5 GND 5 GND 5 GND	

#### FP1, FP2, FP2SH, FP10SH CPU

#### 9p D-SUB Male RS232

3	RXD	
2	TXD	
7	GND	
4	RTS	
5	CTS	
8	CD	
9	ER	
		1



#### FP1 CPU RS422 port

MT8000 COM1[RS-485]4w 9P

Hirose 8Pin Port

D-SUB

1 RX-		2	TXDA
2 RX+		5	TXDB
3 TX-		3	RXDA
4 TX+		6	RXDB
5 GND	]	1	GND



Hirose 8Pin Port

#### MT8000

FP3 CPU RS422 port

COM1[RS-485]4w 9P

15P D-SUB Female

D-SUB

1 RX-	9	TXDA
2 RX+	 2	TXDB
3 TX-	10	RXDA
4 TX+	3	RXDB
5 GND	7	GND
	4	RTS+
	5	CTS+
	11	RTS-
	12	CTS-

Version	Date	Description of Changes
V1.40	Jul/23/2009	
V1.80	Apr/12/2010	Add FL device type

# **Panasonic FP (Ethernet)**

NAIS(Matsushita) FP series include FP-X, FP-Σ, FP0, FP1, FP2, FP2SH, FP10SH and FP3 Ethernet support FP-X with AFPX-COM5.

http://pewa.panasonic.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Panasonic FP		
Com port	Ethernet		
Port no.	9094		
PLC Station no.	0	0~255	

### **PLC Setting:**

Communication mode

Bit/Word	Device Type	Format	Range	Memo
В	Х	dddd(h)	0~9999F	Input(X)
В	Y	dddd(h)	0~9999F	Output(Y)
В	R	dddd(h)	0~9999F	Internal Relay(R)
В	L	dddd	0~9999	Link Relay(L)
В	L_Bit	dddd(h)	0~9999F	
В	Т	dddd	0~9999	Timer(T)
В	С	dddd	0~9999	Counter(C)
W	SV	dddd	0~9999	Timer/Counter set value(SV)
W	EV	ddddd	0~65535	Timer/Counter elapse value(EV)
W	DT	ddddd	0~99999	Data Register(DT)
W	LD	dddd	0~8447	Link Register(LD)
W	WX	dddd	0~9999	Input(WX) (read only)
W	WY	dddd	0~9999	Output(WY)
W	WR	dddd	0~9999	Internal Relay(WR)
W	WL	dddd	0~9999	Link Relay(WL)
W	FL	ddddd	0~99999	File register(FL)



### Wiring diagram:

#### **Ethernet:**

MT RJ4	[8000 Ether] 45	net Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1 RX+	
2	TX-	Orange	2 RX-	RJ45
3	RX+	White/Green	3 TX+	
4	BD4+	Blue	4 BD4+	
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	

# **Ethernet: Direct connect (crossover cable)**

MI RJ4	8000 Etheri 15	net Wire color	_	XGL RJ45	L-EFMI
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown		8	BD3-





# Ethernet connect TCP port: 9094



Device Properties	
Name :	Panasonic FP
Location :	Local Settings
PLC type :	Panasonic FP
	V.1.00, MATSUSHITA_FP.so
PLC I/F :	Ethernet  PLC default station no. : 1
IP :	192.168.1.15, Port=9094 Settings
	Use broadcast command
Inter	val of block pack (words) : 5
Max, rea	ad-command size (words) : 24
Max, wri	te-command size (words) : 24
	OK Cancel

Version	Date	Description of Changes
1.80	April. 12.2010	

# **Panasonic FP2 (Ethernet)**

#### NAIS(Matsushita) FP2 series include FP2, FP2SH, FP10SH CPU.

http://pewa.panasonic.com/

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Panasonic FP		
Com port	Ethernet		
Port no.	8500		
PLC Station no.	0	0~255	

### **PLC Setting:**

Communication mode
--------------------

Bit/Word	Device Type	Format	Range	Memo
В	Х	dddd(h)	0~9999F	Input(X)
В	Y	dddd(h)	0~9999F	Output(Y)
В	R	dddd(h)	0~9999F	Internal Relay(R)
В	L	dddd	0~9999	Link Relay(L)
В	L_Bit	dddd(h)	0~9999F	
В	Т	dddd	0~9999	Timer(T)
В	С	dddd	0~9999	Counter(C)
W	SV	dddd	0~9999	Timer/Counter set value(SV)
W	EV	ddddd	0~65535	Timer/Counter elapse value(EV)
W	DT	ddddd	0~99999	Data Register(DT)
W	LD	dddd	0~8447	Link Register(LD)
W	WX	dddd	0~9999	Input(WX) (read only)
W	WY	dddd	0~9999	Output(WY)
W	WR	dddd	0~9999	Internal Relay(WR)
W	WL	dddd	0~9999	Link Relay(WL)



### Wiring diagram:

#### **Ethernet:**

MT RJ4	8000 Ether 5	net Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1 RX+	
2	TX-	Orange	2 RX-	RJ45
3	RX+	White/Green	3 TX+	
4	BD4+	Blue	4 BD4+	
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	

# **Ethernet: Direct connect (crossover cable)**

MI RJ4	8000 Etheri 15	het Wire color	_	XGL RJ45	L-EFMI
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown		8	BD3-



Version	Date	Description of Changes
1.00	March. 15.2010	

# **Panasonic MINAS A4**

#### Panasonic MINAS A4 series Servo Drive

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	PANASONIC MINAS A4		
Com port	RS232		
Axis no.	0 (master station only)	$0 \sim F$ (slave)	
Baud rate	9600		
Parity bit	None		
Data Bits	8		
Stop bit	1		

Bit/Word	Device Type	Format	Range	Memo
W	Command 01	d	0~0	cpu version (Numeric format:16-bit Hex)
W	Command 05	d	0~0	driver version (ASCII / 12 words)
W	Command 06	d	0~0	motor version (ASCII / 12 words)
В	Command 20	d	0~7	States (Note 3)
W	Command 21	d	0~0	command pulse counter
vv	Command 21	u	0~0	(Numeric format: 32-bit Signed)
<b>W</b> 7	Command 22	d	0 0	feedback pulse counter
vv	Command 22	u	0~0	(Numeric format: 32-bit Signed)
W	Command 24	d	0 0	present speed
vv	Command 24	u	0~0	(Numeric format: 16-bit Unsigned)
<b>W</b> 7	Commond 25	Ŀ	0 0	present torque
vv	Command 23	u	0~0	(Numeric format: 16-bit Unsigned)
<b>W</b> 7	Command 26	d	0 0	present deviation counter
vv	Command 20	u	0~0	(Numeric format: 32-bit Signed)
В	Command 27	d	0~31	input signal (Note 3)
В	Command 28	d	0~31	output signal (Note 3)
W	Command 84	d	0~0	write parameter to EEPROM (Note 1)
	Commond 00	1	0 0	present Alarm Data
vv	Command 90	a	0~0	(Numeric format: 16-bit Unsigned)

	EK	PLC Connection Guide		
W	Commond 01	d	1 14	Alarm History (Note 4)
vv	Command 91		1~14	(Numeric format: 16-bit Unsigned)
W	Command 92 d	1 14	Batch Alarm (Note 4)	
vv		a	1~14	(Numeric format: 16-bit Unsigned)
W	Command 93	d	0~0	clear alarm history (include EEPROM)
				(Note 1)
W	Command 94	d	0 ~ 0	alarm clear (Note 1)
W	Command 9B	d	0~0	Absolute clear (Note 1)
W	Demonster	hh	$0 \sim 7 F$	Individual Parameter (range: 0x00 ~ 0x7F)
	Parameter			(Note 2)

Note:

- Command 84,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 trigger Set Bit Object.). Except these four commands, others are read only.
- Parameter read/write: Use Device type to define address control from 00~7F For example: "address\_00" is mapping to "Parameter\_00". (Please refer detail with Panasonic MINAS A4 series user manual.)
- 3. Device address type can define MINAS A4 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 detail with Panasonic MINAS A4 series user manual)

 Command 91 and Command 92 are word type, use "Operating range" to map the record of 14 alarms. For example: "Command 91\_1" means "Read alarm data\_First alarm.

### Wiring diagram:

MT8000 RS2 9P D-SUB	232		MINA 8n Mii	S A4 Driver ni-DIN Male CNX4	
COM1	COM2	COM3	Port / RS232		
3 TX	4 TX	7 TX	 5	RXD	
2 RX RRX	6 RX	8 RX	3	TXD	
5 GND	5 GND	5 GND	 4	GND	

MT8000 RS4 9P D-SUB	485 2w	MINAS A4 Driver 8p Mini-DIN Male	MINAS A4 Driver 8p Mini-DIN Male
COM1	COM3	CNX3 Port/RS485 2w	CNX4 Port/RS485 2w
1 RX-	6 Data-	7 D-	7 D-
2 RX+	9 Data+	8 D+	8 D+



8 7 6	MINAS A4 Driver CNX3 Port	MINAS A4 Driver CNX4 Port
	7 D-	3 TX
	8 D+	5 RX
8P Mini-Din Female	4 GND	4 GND
MINAS A4 Driver		7 D-
CNX3 / CNX4 Port		8 D+

#### RS485 cable / DVOP1970-005

MINAS A4 Driver	] [	MINAS A4 Driver
8p Mini-DIN Male		8p Mini-DIN Male
7 D-		7 D-
8 D+		8 D+
4 GND		4 GND

#### RS232 cable / DVOP1960

MINAS A4 Driver 9P D-SUB Female	MINAS A4 Driver 8p Mini-DIN Male
3 RXD	5 RXD
2 TXD	3 TXD
5 GND	4 GND

#### HMI connect with one Device

#### Weintek HMI

Com RS232



Station No. 0

Panasonic

HMI connect with multi devices

#### Weintek HMI

Com RS232





Version	Date	Description of Changes
V0.01	Jul/23/2009	



# Parker ACR9000

#### Parker ACR9000

http://www.parkermotion.com

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Parker ACR9000		
Com port	RS232	RS485 4W / RS232	must same as the PLC
			setting
Baud rate	38400	1200 - 38400	must same as the PLC
			setting
Parity bit	None	Even, Odd, None	must same as the PLC
			setting
Data Bits	8	7,8	must same as the PLC
			setting
Stop Bits	1	1,2	must same as the PLC
			setting
HMI Station	0		
No.			
PLC Station	0		must same as the PLC
No.			setting

Online Simulator	YES	Extend address mode	

### **PLC Setting:**

Communication mode	38400,None,8,1
--------------------	----------------

Bit/Word	Device Type	Format	Range	Memo
В	P_Low16bit	DDDDDdd	0~9999915	
В	P_High16bit	DDDDDdd	0~9999915	

PLC Connection Guide

Bit/Word	Device Type	Format	Range	Memo
W	P_Int32	DDDDD	0~99999	
W	P_Float	DDDDD	0~99999	

# Wiring diagram:

MT8000 RS 9P D-SUB	<b>5232</b> Male		Parker ACR9000 RS232 Port
COM1	COM2	COM3	9P D-SUB Male
3 TX	4 TX	7 TX	2 RXD
2 RX	6 RX	8 RX	3 TXD
5 GND	5 GND	5 GND	5 GND

Version	Date	Description of Changes
V1.00	Sep./30/2008	

# Parker Compax3

Parker Compax3 Servo Drive <u>http://www.parker.com</u>

### **HMI Setting:**

### **RS232**

Parameters	Recommend	Option	Notes
PLC type	Parker Compax3 [V1.50]		
Com port	RS-232		Must match the PLC's port setting.
Baud rate	115200		Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
PLC Station No.	0	0	Must be 0 for RS232

#### **RS485**

Parameters	Recommend	Option	Notes
PLC type	Parker Compax3 [V1.50]		
Com port	RS-485 2W		Must match the PLC's port setting.
Baud rate	9600		Must match the PLC's port setting.
Parity bit	None	Even, Odd, None	Must match the PLC's port setting.
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
PLC Station No.	1	1-99	Range from 1 to 99 for RS485,
	1		according to the PLC's setting.

Bit/Word	Device Type	Format	Range	Memo
В	R_Low16bit	ddddddd(h)	0~99999999(f)	
В	R_High16bit	ddddddd(h)	0~99999999(f)	
DW	Register_Int	ddddd	0~999999	For Register is INT32 or U32
DW	Register_float	ddddd	0~999999	For Register is INT32 or U32
W	Register_Short	ddddd	0~999999	For Register is INT16 or U16



### Wiring diagram:

RS232:

EasyView MT8000

RS232 9P D-SUB

RS232 9P D-SUB				Parker Compax3 PLC
COM1 [RS232]	COM2 [RS232]	COM3 [RS232]		X10 9P D-SUB
3 TX	4 TX	7 TX	]	2 RXD
2 RX	6 RX	8 RX		3 TXD
5 GND	5 GND	5 GND		5 GND

Parkar Compax3 PLC

RS485:

EasyView MT8000

RS-485 2w D-SUB

	COM1[485]		COM3[485]			X	0 9P D-SUB
1	RX-	6	Data-			3	RXD
2	RX+	9	Data+			7	TXD
5	GND	5	GND			5	GND
					[	1	Enable RS485
						9	+5V

How to setting Compax 3 servo to RS485 mode?

1. Open C3 ServoManager2, select "Communication"=> "RS-485 Settings".



2. Click to Configure "RS-485/POP Settings".



3. Setting parameters as below



- 4. Downloading settings to Compax3 Servo.
- 5. Setting EB8000 system parameter and connecting with PLC for communication of HMI and Servo.

# **Parker SLVD Series**

Parker SLVD Servo, SLVD1N, SLVD2N, SLVD5N, SLVD7N, SLVD10N, SLVD15N, SLVD17N.

http://www.parker.com/portal/site/PARKER/

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Parker SLVD Series		
Com port	RS485 4w		
Baud rate	9600	9600/19200	must same as the PLC setting
Parity bit	Even	Even, Odd, None	must same as the PLC setting
Data Bits	8	7,8	must same as the PLC setting
Stop Bits	1	1,2	must same as the PLC setting
HMI Station No.	0		
PLC Station No.	0		0-31

Online Simulator	YES	Extend address mode	

### **PLC Setting:**

Communication mode 9600,Even,8,1
----------------------------------

Bit/Word	Device Type	Format	Range	Memo
В	Par_Binary	DDD(DD)	0~4999(15)	Set a bit of Parameter
W	Par_One_Word	DDD	0~4999	Set 2 bytes Parameter
W	Par_One_Byte	DDD	0~4999	Set 1 byte Prarmeter
DW	Par_Two_Word	DDD	0~4999	Set 4 bytes Parameter





### Wiring diagram:

#### MT8000

Parker SLVD Servo

#### COM1[RS-485]4w

Serial LINK X1 15P D-Sub

9P D-SUB

1 RX-	7 TX-
2 RX+	12 TX+
5 GND	3 GND
3 TX-	2 RX-
4 TX+	1 RX+
	6 TER

Version	Date	Description of Changes
V1.00	Jan/28/2010	



# SAIA PCD PGU Mode

SAIA PCD series PGU mode.

http://www.saia-burgess.com/

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SAIA PCD PGU mode	SAIA PCD S-BUS mode	PDS driver
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7,8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	0-255	

### **PLC Setting:**

Communication mode	9600,E,7,1(default)
--------------------	---------------------

Bit/Word	Device Type	Format	Range	Memo
В	Flag	ddd	ddd=0~8191	
В	Input	ddd	ddd=0~511	
В	Output	ddd	ddd=0~511	
D	Register	ddd	ddd=0~4095	
D	Counter	ddd	ddd=0~1599	
D	Timer	ddd	ddd=0~450	
D	Reg_Float	ddd	ddd=0~4095	support single float point



### Wiring diagram:

RS232:

	MT8000 RS232	2		SAIA PCD PGU port	
	9P D-SUB Male	e		9P D-SUB Female	
COM1	COM2	COM3			
3 TX			]	2 RXD	]
2 RX				3 TXD	
5 GND				5 GND	
7 RTS				6 DSR	
				7 RTS	
				8 CTS	

#### 6 DSR(Of PGU Port):PGU connected

Version	Date	Description of Changes
V1.02	Dec/30/2008	

# SAIA PCD S-BUS Mode

#### SAIA PCD series S-Bus mode.

http://www.saia-burgess.com/

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SAIA PCD S-BUS	SAIA PCD PGU mode	PDS driver
	mode		
Com port	RS232	RS232, RS485	
Baud rate	9600	9600, 19200, 38400	
Parity bit	None	Even, Odd, None	
Data Bits	8	7,8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	0-255	

### **PLC Setting:**

Communication mode	9600,N,8,1(default)
RS232	Port 0-Type:RS232
RS485 2W	S-BUS Mode:Data(S2),Port 1-Type:RS485

1. Open Saia Project Manager SP2.0.150 and create a new project



2. Give a project name

🕤 New Project	
Project <u>N</u> ame:	
Project7	
Projects Directory:	
C:\Documents and Settings\All Users\Saia-Burge	ess\PG5_20\Projects
Description:	
	~
	<u> </u>
Create Device	
Help	OK Cancel

3. Create a new project as below,



4. Go to Online Setting



5. Select PGU

Settings (Dev	ice1]	
Select the channel		
PGU	Setup	
PGU Profi-S-Bus S-Bus Modem SOCKET S-Bus USB S-Bus	PGU	

6. Go to "Device Configurator"



7. Press " Change Device Type" to select your PLC model.

Saia Device Configura	tor - [Device1.saiadev]			
🐉 <u>F</u> ile <u>E</u> dit <u>V</u> iew <u>(</u>	Inline Iools <u>Wi</u> ndow <u>H</u> elp			
D 📽 😒  🗗	8 B ( ) ? ?   # # I B 3 3			
Device				
Type Desc	iption			
PCD3.M5540   CPU with 256/512/1024 KBytes RAM, 4 I/O slots (expandable), USB, Profi-S-Net, RS-232, Ethernet.			Change Device Type	
Ethernet Protocols		Cut	Ctd+X	
Ethernet Protocols Section	Description	Cu <u>t</u> <u>C</u> opy	Ctd+X Ctd+C	
Ethernet Protocols Section IP Transfer Protocols	Description FTP, HTTP Direct Protocols, ODM.	Cu <u>t</u> <u>C</u> opy <u>P</u> aste	Ctd+X Ctd+C Ctd+V	
Ethernet Protocols Section IP Transfer Protocols IP Protocols	Description FTP, HTTP Direct Protocols, ODM. DHCP, DNS, SNTP, SNMP protocols.	Cut Copy Paste Insert	Cttl+X Cttl+C Cttl+V Cttl+I	
Ethernet Protocols Section IP Transfer Protocols IP Protocols	Description FTP, HTTP Direct Protocols, ODM. DHCP, DNS, SNTP, SNMP protocols.	Cut Copy <u>P</u> aste Insert Delete	Ctd+X Ctd+C Ctd+V Ctd+I Del	
Ethernet Protocols Section IP Transfer Protocols IP Protocols Memory Slots	Description FTP, HTTP Direct Protocols, ODM. DHCP, DNS, SNTP, SNMP protocols.	Cut Gopy Paste Insert Delete	Cttl+X Cttl+C Cttl+V Cttl+I Del	
Ethernet Protocols Section IP Transfer Protocols IP Protocols Memory Slots Slot   Type	Description FTP, HTTP Direct Protocols, ODM. DHCP, DNS, SNTP, SNMP protocols.	Cut Copy Easte Insent Delete Move up	Cttl+X Cttl+C Cttl+V Cttl+I Del Cttl+U Cttl+U	
Ethernet Protocols Section IP Transfer Protocols IP Protocols Memory Slots Slot Type M1	Description FTP, HTTP Direct Protocols, ODM. DHCP, DNS, SNTP, SNMP protocols. Description	Cut Gopy Peste Insert Delete Move up Move down	Ctd+X Ctd+C Ctd+V Ctd+V Del Ctd+U Ctd+U	

WEINTEK

🕀 PCD1 Series	1
■ PCD1 Mxox0 Series	
PCD2 Series	
PCD2.MI10	
PCD2.M120	
PCD2 M170	
PCD2 M480	
+ PCD2.Mxxx0 Series	
😟 PCD3 Series	
+ PCD2 Compact Series	
PCD2.M480	
CPU with 1 MBytes RAM, (	I/O slots (expandable), 3
communication slots, Profi	S-Net and USB interface.

8. Select RS232(PGU) in Type and then right click mouse on Onboard Communications and select " Properties"

Properties		<b>ቶ</b> ×
Onboard : R5-232 (PGU)		
🗆 Serial S-Bus Port		
Port Number Serial S-Bus	0	
Enabled	No	*
Full Protocol (PGU)	Yes	
🗆 Serial S-Bus Master Gate	eway	
Port Number Gateway	0	
Use For Gateway	No	
First S-Bus Station	0	
Last S-Bus Station	253	
🗆 S-Bus Mode And Timing		
S-Bus Mode	Data Mode	
Baud Rate	9600 Baud	
Response Timeout [ms]	0	
Training Sequence Delay [ms	; 0	
Turnaround Delay [ms]	0	

9. Select Yes in Series S-Bus Port : Enabled

nboard : RS-232 (PGU)					
Serial S-Bus Port					
Port Number Serial S-Bus	0				
Enabled	Yes				
Full Protocol (PGU)	Yes				
Serial S-Bus Master Gat	eway				
Port Number Gateway	0				
Use For Gateway	No				
First S-Bus Station	0				
Last S-Bus Station	253				
S-Bus Mode And Timing					
S-Bus Mode	Data Mode				
Baud Rate	9600 Baud				
Response Timeout [ms]	0				
Training Sequence Delay [m	s 0				
Turnaround Delay [ms]	0				

10. Setting parameters in S-Bus Mode And Timing and upload to PLC.

evici	👂 Saia Device (	Configurator - [Device1.saiadev *]
<u>E</u> d	👺 <u>F</u> ile <u>E</u> dit	<u>View O</u> nline <u>I</u> ools <u>W</u> indow <u>H</u> elp
-	D 🗃 😼	<b>. ()</b>   % @ @   \$ ~ ~   \$ 8 ] E <u>\$ 2</u>
		Upload Configuration
6	Device	
	Туре	Description
-VI481	PCD2.M480	CPU with 1 MBytes RAM, 8 I/O slots (expandable), 3 communication slots, Profi-S-Net an-



Upload Configuration	
Device configuration file name :	
C:\Documents and Settings\All Users\S	aia-Burgess\PG5_20\Projects\Project7\Device1\Device1.:
Upload on :	
PGU	
Help	Upload Cancel

11. Go to Online Settins >> Open to select S-Bus for finishing the PLC settings.

Eile Eile	<u>E</u> dit	<u>V</u> iew	<u>P</u> roject	<u>D</u> evice	<u>O</u> nline	<u>T</u> ools	He
. <mark>∎</mark> } (	1:   C		蓼 搔 🛛	4			
i 🗅 🛛	ê 🗿		🏥 🛗 🛃	Sym	II 🖁		
Ргоје	ct Tree	;				<b>д</b>	×
	Projec	t Projec	t7' : 1 Dev:	ice			
	Comm	ion Files 14 Maria a					
	Dauia	y Manag •1 PC	ег • <b>Гор Мао</b> н	n e p.	10 Sto 1		
		tine Setti	DZ.M40	0-2-01	12 200 1		
	E De	vice Con	f. Oper	n Enter	c		
	ାମ୍ମି Bu	ild Optic	m Cop	v Ctrl+	c		
<u>ا</u>	📄 Pro	gram Fi	le Paste	Ctrl+	v		
<u>ا</u>	📄 Lis	ting File:	s	0411	<u> </u>		
÷.	📄 Do	cumenta	ti <u>P</u> rint	Ctrl+	P		







### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Flag	DDDD	0~8191	
В	Input	DDDD	0~1023	
В	Output	DDDD	0~1023	
В	Reg_Bit	DDDDdd	0~1638331	dd:Bit no. (00~31)
D	Register	DDDDD	0~16383	
D	Counter	DDDD	0~1599	
D	Timer	DDDD	0~1599	
D	Reg_Float	DDDDD	0~16383	support single float point

### Wiring diagram:

RS232:

#### MT8000 RS232

#### SAIA PCD PGU port

8 CTS

SAIA PCD1

Port# 1

	9P D-SUB Male	•		9P D-SUB Female
COM1	COM2	COM3		
3 TX	4 TX	7 TX		2 RXD
2 RX	6 RX	8 RX		3 TXD
5 GND	5 GND	5 GND		5 GND
			-	7 RTS

#### RS485:

MT8000 RS-485

9P D-SUB Female

COM1	COM3	
1 RX-	6 Data-	11
2 RX+	9 Data+	12
5 GND	5 GND	

MT800	0 RS-485	SAIA PCD1
9P D-SU	JB Female	Port# 0
COM1 COM3		
1 RX-	6 Data-	29
2 RX+	9 Data+	28
5 GND	5 GND	

Version	Date	Description of Changes
V1.10	Dec/30/2009	

# **SAIA S-BUS (Ethernet)**

SAIA PCD series S-Bus mode.(Ethernet).

http://www.saia-burgess.com/

### **HMI Setting:**

Parameters	recommend	Option	Notes
PLC type	SAIA SBUS		UDP protocol
	(Ethernet)		
Com port	Ethernet		
Port no.	5050		
PLC Station No.	1		The same as PLC setting

Bit/Word	Device type	Format	Range	Memo
В	Flag	DDDD	0~8191	
В	Output	DDDD	0~1023	
В	Input	DDDD	0~1023	Read Only
В	Reg_Bit	DDDDDdd	0~1638331	dd : Bit no. (00~31)
DW	Register	DDDDD	0~16383	
DW	Counter	DDDD	0~1599	
DW	Timer	DDDD	0~1599	
DW	Reg_Float	DDDD	0~16383	



8

RJ45 connector

1



# Wiring diagram:

Ethernet:
-----------

MT8000 Ethernet RJ45		Wire color	Ethern RJ45	et Hub or Switch
1	TX+	White/Orange	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

#### Ethernet: Direct connect (crossover cable)

MT8000 E RJ45	thernet	Wire color		SAIA S RJ45	BUS Ethernet
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown	]	8	BD3-

Version	Date	Description of Changes
V1.00	Aug/17/2010	
V1.10	Dec/3/2010	Add Reg_Bit register.


# Schleicher XCS 20C

Schleicher XCx-Systems Ethernet port. Schleicher XCS series, 20C model <u>http://www.schleicher-electronic.com</u>

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Schleicher XCS20		
Com port	RS232		
Baud rate	38400		
Parity bit	Ν		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.			

## **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	IX	ddddd(o)	ddd:0~65535 (o): 0~7	Input %IX
В	QX	ddddd(o)	ddd:0~65535 (o): 0~7	Output %QX
В	MX	ddddd(o)	ddd:0~65535 (o): 0~7	%MX
W	IW	ddddd	ddd:0~65535	%IW
W	QW	ddddd	ddd:0~65535	%QW
W	MW	ddddd	ddd:0~65535	%MW
DW	ID	ddddd	ddd:0~65535	%ID
DW	QD	ddddd	ddd:0~65535	%QD
DW	MD	ddddd	ddd:0~65535	%WD

• word address must be even.





#### MT8000 RS232 9P D-SUB Female

Schleicher XCS20 RS-232 X1 9P D-SUB Male

COM1	COM2	COM3		
3 TX	4 TX	7 TX	2	RD
2 RX	6 RX	8 RX	 3	TD
5 GND	5 GND	5 GND	5	GND

Version	Date	Description of Changes
V1.00	Nov/30/2009	

# Schleicher XCX 300

http://www.schleicher-electronic.com

# **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Schleicher XCX 300		
Com port	Ethernet	RS232,	
		RS422,	
		Ethernet	
TCP Port no.	20547		
HMI Station No.	0		
PLC Station No.	0		

# **PLC Setting:**

Proje

Must create variable for HMI access.

	Name	Type	Address	Description	Usage	Init	Retain	PDD	OPC
	MW90	WORD	%MW 180		VAR		Г	Г	Г
	MW91	WORD	%MW 182	-	VAR		Г	Г	Г
ndow 🔣 🗙	MW92	WORD	%MW 184		VAR			Г	Г
\Documents and Settings	MW93	WORD	%MW 186		VAR		Г	Г	Г
ies	MW94	WORD	%MW 188		VAR		Г	Γ	Г
VDes	MW95	WORD	%MW 190		VAR		<b>F</b>	Γ	Г
al POUs	MW96	WORD	%MW 192	1	VAR		Г	Г	Г
ample	MW97	WORD	%MW 194		VAR		Г	Г	Г
] SampleT	MW98	WORD	%MW 196		VAR		<b></b>	Г	Г
SampleV	MW99	WORD	%MW 198		VAR		Г	Г	Г
Sample	MW100	WORD	%MW 200		VAR			Г	Г
ncSvnc	IXO	BOOL	%IX 10000.0		VAR		Г	Π	Г
al Hardware	IX1	BOOL	%IX 10000.1		VAR		Г	Γ	Г
onfiguration : XCx 40	IX2	BOOL	%IX 10000.2		VAR		E	1	Г
Resource XCN3xx	IX3	BOOL	%IX 10000.3		VAR		Г	Г	Г
a Tasks	IX4	BOOL	%IX 10000.4		VAR		Г	Г	Г
T T T T T T T T T T T T T T T T T T T	IX5	BOOL	%IX 10000.5		VAR		Г	Г	Г
+ 🗰 tXFIO : CYCL	IX6	BOOL	%IX 10000.6		VAR		Г	Г	Г
+ m tSync : EVEN1	IX7	BOOL	%IX 10000.7		VAR			Г	Г
Global Variables	IX8	BOOL	%IX 10001.0		VAR		Г	Γ	Г

Bit/Word	Device Type	Format	Range	Memo
В	IX	ddddd(o)	ddddd:0~65535 (o): 0~7	Input %IX
В	QX	ddddd(o)	ddddd:0~65535 (o): 0~7	Output %QX
В	MX	ddddd(o)	ddddd:0~65535 (o): 0~7	%MX
W	IW	ddddd	ddddd:0~65535	%IW
W	QW	ddddd	dddd:0~65535	%QW

	K			PLC Connection Guide
W	MW	ddddd	dddd:0~65535	%MW
DW	ID	ddddd	dddd:0~65535	%ID
DW	QD	ddddd	dddd:0~65535	%QD
DW	MD	ddddd	dddd:0~65535	%MD

\* word address must be even.

# Wiring diagram:

#### Ethernet: Direct connect (crossover cable)

MT80 RJ45	00 Ethernet	Wire color	_	PLC RJ45	
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown	]	8	BD3-

#### Ethernet Hub:

MT80 RJ45	00 Ethernet	Wire color		Ethern RJ45	et Hub or Switch
1	TX+	White/Orange		1	RX+
2	TX-	Orange		2	RX-
3	RX+	White/Green		3	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		6	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown	]	8	BD3-



### RS232 port

	MT8000 RS-2	232		Schleicher xcx300
	9P D-SUB			RS232 Port
COM1	COM2	COM3	_	
3 TX	4 TX	7 TX	]	RXD
2 RX	6 RX	8 RX		TXD
5 GND	5 GND	5 GND		GND



RS422 port

Schleicher xcx300

MT8000
COM1 RS-485 4w

RS472 Port

COMIT K5-465 4W	K5422 F0I1
1 RX-	TX-
2 RX+	TX+
3 TX-	RX-
4 TX+	RX+
5 GND	GND

Version	Date	Description of Changes
V1.00	Nov/30/2009	
V1.10	Jul/1/2010	Support RS232, RS422 interface connection



# **SEW Movilink**

SEW Eurodrive series, model MOVITRAC-07 inverter, MovitracB <a href="http://sg.sew-eurodrive.com/">http://sg.sew-eurodrive.com/</a>

### HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SEW Eurodrive MOVITRAC		
Com port	RS-485		
PLC Station	0	0~255	
No.			
Baud rate	9600		
Data bit	8		
Parity bit	Even		
Stop bit	1		

Bit/Word	Device Type	Format	Range	Memo
W	NIDEV	DDddddd	DDD(000~255)	D: Sub Index
VV	INDEA	DDDdddddd	dddd(08000~25000)	d: Index
			DDD(000~255)	D: Sub Index
В	INDEX_Bit	DDDddddd(h)	dddd(08000~25000)	d: Index
			h(0~f)	h: Index_bit

- The MOVITRAC-07 doesn't support Sub index ( other series maybe support ), please fixed to input 000.
- When input D and d, the correct format example as follow : Sub index 15, Index 8359, Format is 01508359





Version	Date	Description of Changes
V1.20	Dec/30/2008	



# SIEMENS S7/1200 (Ethernet)

#### Siemens S7/1200 series Ethernet

http://www.ad.siemens.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/1200 (Etherne	t)	
Com port	Ethernet		
HMI Station No.	0		
PLC Station No.	2		
TCP port	102		
Interval of block pack	0		

- 1. In S7-1200 program software creates PLC program and tag and then download to PLC. Select Go offline, EB8000 will connect to PLC and get tag data.
- 2. In PLC type select "SIEMENS S7/1200 (Ethernet)". Set Interval of block pack (words) to 0.

Device Properties
Name : SIEMENS S7/1200 (Ethernet)
OHMI ⊙PLC Location : Local Settings
PLC type : SIEMENS S7/1200 (Ethernet)
V.1.31, SIEMENS_S7_1200_ETHERNET.so PLC I/F : Ethernet  PLC default station no. : 2 Use UDP (User Datagram Protocol ) IP : 192.168.1.96, Port=102 Use broadcast command
Interval of block pack (words) : Max. read-command size (words) : 2 Max. write-command size (words) : 2
OK Cancel

3. Click "Settings...", input PLC IP address.

Address Settings		
IP address : 192 . :	168 . 0 . 95	
Port no. : 102		
Timeout (sec) : 1.0	Turn around delay (ms) : 0	
Send ACK delay (ms) : 0	Parameter 1 : 0	
Parameter 2 : 0	Parameter 3 : 0	

4. Check the PLC has not any PC connected. Click "Get tag info...", it will show a successful message.

Font		Extended M	lemory		Printer/Back	up Server
Device	Mod	lel Ge	neral	System	n Setting	Security
)evice list :						
No.	Name	Location	Device type	)	Interface	
Local HMI	Local HMI	Local	MT6070iH/M	T8070	Disable	
Local PLC 4	SIEMENS S7	/1200 Local	SIEMENS S7/	1200	Ethernet(IP=1	92 168 1 96, Port
New . oject descri	ption :	Delete	Settings	) Ge	et tag info	<b>)</b>

5. Create an object and click read address "Setting..."

it Lamp Object's Properties	
Jeneral Security Shape Label Profile	
Description :	
Read address	
PLC name : Local HMI	Setting
Address : LB_0	

In PLC name select S7-1200 then click Tag.

Address		
PLC name : Tag : Data type :	SIEMENS S7/1200 (Ethernet) 0 ?	•
		OK Cancel

Select PLC tag.

PLC name :	SIEMENS S7/1200 (Ethernet)	×	
Tag :	0	<u>N</u>	<u> </u>
Data type :	Program blocks DB_in_SubFolder [DB3] FB_in_SubFolder [DB4] myDB_1 [DB1] PLC tags Area QArea	Name Start_A_Motor_1 Stop_Motor Start_A_Motor_2 Stop_Motor_B Start_B_Motor_2 123	Data type Bool Bool Bool Bool Bool Bool Bool

# **Support Device Type:**

S7-1200 Data type	EB8000 Memo			
Bool	bit			
Word	16-bit BCD, Hex, Binary, Unsigned			
Int	16-bit BCD, Hex, Binary, Signed			
DWord	32-bit BCD, Hex, Binary, Unsigned			
Dint	32-bit BCD, Hex, Binary, Signed			
Real	32-bit Float			
Array	Word array for ASCII input and ASCII display	Length=word		

# Wiring diagram:

Ether	net: MT80 RJ45	00 Ethernet	Wire color		Ether Switch	net Hub or 1 RJ45	
	1	TX+	White/Orange		1	RX+	$ \begin{array}{c} 1 \\ 1 \\ 8 \\ 1 \\ 8 \\ 145 \\ connector \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ $
	2	TX-	Orange		2	RX-	
	3	RX+	White/Green		3	TX+	
	4	BD4+	Blue		4	BD4+	
	5	BD4-	White/Blue		5	BD4-	
	6	RX-	Green		6	TX-	
	7	BD3+	White/Brown	]	7	BD3+	
	8	BD3-	Brown	]	8	BD3-	

#### Ethernet: Direct connect (crossover cable)

MT80 RJ45	00 Ethernet	Wire color	_	S7-1200 RJ45	Ethernet
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown	]	8	BD3-



# Notification:

On-line Simulation	OK	
Multi-PLC connect	OK	

Version	Date	Description of Changes
V1.00		



# SIEMENS S7/200

#### Siemens S7/200 series PLC (CPU212/214/215/216/221/222/224/226/226XM) http://www.ad.siemens.com

### **HMI Setting:**

Parameters Recommend		Option	Notes
PLC type	SIEMENS S7/200		
Com port	RS485 2w	RS485 2w	
Baud rate	9600	9600, 19200, 187.5K	Must same as the PLC setting The HMIs which has sticker MPI187.5 on the rear panel, support 187.5 baud rate.
Parity bit	Even	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must same as the PLC setting
Stop Bits	1	1, 2	Must same as the PLC setting
PLC Station No.	2		Must same as the PLC setting
Turn around delay (ms)	5		
Reserved 1	30		ACK delay time

Online Simulator	YES	Extend address mode	NO
Broadcast command	NO		

## **PLC Setting:**

Communication mode	Set station number as 2
--------------------	-------------------------

Bit/Word	Device Type	Format	Range	Memo
В	Ι	dddd(o)	0-40957	Input (I)
В	Q	dddd(o)	0-40957	Output (O)
В	М	dddd(o)	0-40957	Bit Memory
В	VW.Bit	ddddd(o)	0-102397	V Memory bit address
W	VB	ddddd	0-10239	
W	VW	ddddd	0-10239	V memory

	WEINTEK PLC Connection Guid					
W	VW_Odd	ddddd	0-10239	V memory		
DW	VD	ddddd	0-10239	V memory double word		
DW	VD_Odd	ddddd	0-10239	V memory double word		
W	VD_String	ddddd	0-10239	String		
W	VD_String_Odd	ddddd	0-10239	String		
W	VW_String	ddddd	0-10239	String		
W	VW_String_Odd	ddddd	0-10239	String		
W	MB	ddddd	0-10239	byte memory		
W	MW	ddddd	0-10239	Word memory		
W	MW_Odd	ddddd	0-10239	Word memory		
W	Т	ddd	0-127	Timer		
W	С	ddd	0-127	Counter		

\* Double word and Floating point value must use VD device type.

# Wiring diagram:

#### MT8000 RS-485

9P D-SU	JB Female		CPU Port
COM1	COM3		9P D-SUB Female
1 RX-	6 Data-		8 D-
2 RX+	9 Data+		3 D+
5 GND	5 GND	]	5 GND

SIEMENS S7/200

Version	Date	Description of Changes
V2.30	Aug/17/2009	



# **SIEMENS S7/200 (Ethernet)**

Siemens S7/200 Ethernet Series PLC(CPU212/214/215/216/221/222/224/226/226XM) http://www.ad.siemens.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Siemens S7/200		Must match the PLC's port setting.
	(Ethernet)		
Com port	Ethernet		Must match the PLC's port setting.
Port no.	102		Must match the PLC's port setting.
PLC station no.	1	0-31	Must match the PLC's port setting.

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo	
В	Ι	dddd(o)	0-40957	Input (I)	
В	Q	dddd(o)	0-40957	Output (O)	
В	М	dddd(o)	0-40957	Bit Memory	
В	VW.Bit	ddddd(o)	0-102397	V Memory bit address	
W	VW	ddddd	0-10239	V memory	
W	VW_String	ddddd	0-10239	String	
DW	VD	ddddd	0-10239	V memory double word	
DW	VD_String	ddddd	0-10239	String	

• Double word and Floating point value must use VD device type.



MT8000 Ethernet		Wire color	Ethernet Hub or Swit	ch RJ45
RJ	45			
1	TX+	White/Orang	1 RX+	
2	TX-	Orange	2 RX-	
3	RX+	White/Green	3 TX+	
4	BD4+	Blue	4 BD4+	
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brow	7 BD3+	
8	BD3-	Brown	8 BD3-	



8 RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet Wire color			Ethernet Device		
RJ45				RJ45	
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown	]	8	BD3-

Version	Date	Description of Changes
V1.20	Dec/30/2008	



# SIEMENS S7/300

Siemens S7/300 series PLC http://www.ad.siemens.com

# **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/300		
Com port	RS232		
Baud rate	19200, 38400, 187.5K	9600~187.5K	Must same as the PLC setting The HMIs which has sticker MPI187.5 on the rear panel, support 187.5 baud rate.
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	2		Must same as the PLC setting

# **PLC Setting:**

Communication mode	

Bit/Word	Device Type	Format	Range	Memo
В	Ι	dddd(o)	0-40957	Input (I)
В	Q	dddd(o)	0-40957	Output (O)
В	М	dddd(o)	0-40957	Bit Memory
В	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	ffffdddd	000000-40968192	Data register(must be even)
DW	DBDn	ffffdddd	000000-40968192	Data register double word (must be

L		PLC Connection Guide
		multiple of 4)

\* Double word and Floating point value must use DBDn device type.

## Wiring diagram:

#### MT8000 RS232

#### SIEMENS S7/300 PC

adapter RS232 Port

	9P D-SUB Male	e	adapter RS232 Poi
COM1	COM2	COM3	9P D-SUB Male
3 TX	4 TX	7 TX	2 RXD
2 RX	6 RX	8 RX	3 TXD
5 GND	5 GND	5 GND	5 GND
			7 RTS
			9 CTS

Systeme Helmholz

Male

6 DSR

8 CTS

	9P D-SUB Male		SSW7-TS	
COM1	COM2	COM3		9P D-SUB Mal
3 TX	4 TX	7 TX		2 RXD
2 RX	6 RX	8 RX		3 TXD
5 GND	5 GND	5 GND		5 GND
				7 RTS
				8 CTS
			<b></b>	4 DTR

Version	Date	Description of Changes	
V2.60	Jul/08/2009		
V2.70	Nov/16/2009	Add MD register (32-bit format)	



# SIEMENS S7/300 (Ethernet)

Siemens S7/300 Ethernet Series PLC <u>http://www.ad.siemens.com</u>

# HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Siemens S7/300		Must match the PLC's port setting.
	(Ethernet)		
Com port	Ethernet		Must match the PLC's port setting.
Port no.	102		Must match the PLC's port setting.
PLC station no.	1	0-31	Must match the PLC's port setting.

# **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Ι	dddd(o)	0-40957	Input (I)
В	Q	dddd(o)	0-40957	Output (O)
В	М	dddd(o)	0-40957	Bit Memory
В	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	ffffdddd	000000-40968192	Data register(must be even)
DW	DBDn	ffffdddd	000000-40968192	Data register double word (must be
DW				multiple of 4)

\* Double word and Floating point value must use DBDn device type.



MT8000 Ethernet		Wire color		rnet Hub or Switch RJ45
RJ	45			
1	TX+	White/Orang	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Green	3	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	6	TX-
7	BD3+	White/Brow	7	BD3+
8	BD3-	Brown	8	BD3-



#### Ethernet: Direct connect (crossover cable)

MT8000 Ethernet		Wire color	Ethernet Device
RJ4	5		RJ45
1	TX+	White/Orange	3 RX+
2	TX-	Orange	6 RX-
3	RX+	White/Green	1 TX+
4	BD4+	Blue	4 BD4+
5	BD4-	White/Blue	5 BD4-
6	RX-	Green	2 TX-
7	BD3+	White/Brown	7 BD3+
8	BD3-	Brown	8 BD3-

	Version	Date	Description of Changes
	V1.60	Jul/09/2009	Improved communication performance
V1.70 Nov/16/2009 Add MD register (32-bit format)		Add MD register (32-bit format)	



# SIEMENS S7/300 MPI

Siemens S7/300 series PLC

http://www.ad.siemens.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	SIEMENS S7/300 MPI		
Com port	RS485 2w		
Baud rate	187.5K		
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
PLC Station No.	2		

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Ι	dddd(o)	0-40957	Input (I)
В	Q	dddd(o)	0-40957	Output (O)
В	М	dddd(o)	0-40957	Bit Memory
В	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	ffffdddd	000000-40968192	Data register(must be even)
	DBDn	ffffdddd	000000-40968192	Data register double word (must
DW				be multiple of 4)Data register
				double word

\* Double word and Floating point value must use DBDn PLC device type.



# Wiring diagram:

MT8000iV series HMI

RS485 2w 9P D-SUB Male

S7-200 PPI / 9P D-SUB Male S7-300 MPI / 9P D-SUB Male

COM1	COM3	
1 RX-	6 Data-	8 D-
2 RX+	9 Data+	3 D+
5 GND	5 GND	5 GND

Version	Date	Description of Changes	
V1.10	Jul/09/2009		
V1.20	Nov/16/2009	Add MD register (32-bit format)	



# SIEMENS S7/400 (Ethernet)

#### Siemens S7/400 Ethernet PLC

http://www.ad.siemens.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Siemens S7/400 (Ethernet)		Must match the PLC's port setting.
Com port	Ethernet		Must match the PLC's port setting.
Port no.	102		Must match the PLC's port setting.
PLC station no.	0	0-31	Must match the PLC's port setting.
Link Type	PG	PC, OP	Must match the PLC's port setting.
Rack	0	0-7	Must match the PLC's port setting.
CPU slot	3	2-31	Must match the PLC's port setting.

# **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Ι	dddd(o)	0-40957	Input (I)
В	Q	dddd(o)	0-40957	Output (O)
В	М	dddd(o)	0-40957	Bit Memory
В	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	ffffdddd	000000-40968192	Data register(must be even)
DU	DDDm	ffffdddd	000000-40968192	Data register double word (must
DW	DBDn			be multiple of 4)

\* Double word and Floating point value must use DBDn device type.



MT8000 Ethernet		Wire color I		Ethernet Hub or Switch RJ45
RJ	45			
1	TX+	White/Orang		1 RX+
2	TX-	Orange		2 RX-
3	RX+	White/Green		3 TX+
4	BD4+	Blue		4 BD4+
5	BD4-	White/Blue		5 BD4-
6	RX-	Green		6 TX-
7	BD3+	White/Brow		7 BD3+
8	BD3-	Brown		8 BD3-



#### Ethernet: Direct connect (crossover cable)

MT8000 Ethernet		Wire color		Ethernet Device	
RJ45				RJ45	
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-

## **EB8000 Device Setting Steps**

1. Open EB8000, and File -> NEW, select HMI model and press ok button



EasyBuilder(Copyright c	2006 Weintek Lab., Inc.)	X
Welcome to EasyBuilder8	3000. Please select your model.	
Model :	MT6070iH/MT8070iH/MT6100i/MT8100i (800 x 480)	~
Display mode :	Landscape	~
	☑ Use template	
	Z. OK Cancel	

2. Then, you will see the window of "system parameter settings" as below, press "New" button.

System Parameter Settings							
Fon	t		Extended Memory		Printer/Bac}	kun Server	
Device		Model	General	System	1 Setting	Security	
Device list :							
No.	Name	Location	Device type	Interface	I/F Protocol	Station no.	]
Local HMI	Local HMI	Local	М Т6070іН/М Т8070	Disable	N/A	N/A	
Project desc		Delete	Settings				
			ОК	Cancel	]	Help	



## 3. Select "SIEMENS S7/400(ETHERNET)".

Device Properties				
Name :	SAIA PCD PGU Mode			
	OHMI ⊙PLC			
Location :	Local Settings			
PLC type :	SAIA PCD PGU Mode			
PLC I/F : COM :	Provisor TC200 SALA PCD PGU Mode SALA PCD S-BUS Mode SALA PCD S-BUS Mode SALA S-BUS (Ethernet) Samsung SPC-10 Schleicher XCS 20C Schleicher XCS 20C Schleicher XCS 20C SEW Movlink ST/1200 (Ethernet) SIEMENS S7/200 (Ethernet)			
Inter	SIEMENS S7/300 SIEMENS S7/300 (Ethernet) SIEMENS S7/300 MPI SIEMENS S7/400 (Ethernet)			
Max. reg SIMATIC TI505 TATAN TP02 Series				
	TELEMECANIQUE UniTelway			
	Thinget XC Series			

### 4. Press "Settings" button.

Device Properties	
Name :	SIEMENS S7/400 (Ethernet)
Location :	Local Settings
PLC type :	SIEMENS S7/400 (Ethernet)
	V.1.00, SIEMENS_S7_400_ETHERNET.so
PLC I/F :	Ethernet  PLC default station no. : 1
	Use UDP (User Datagram Protocol )
IP :	0.0.0.0, Port=102 Settings
	Use broadcast command
Inter	val of block pack (words) : 5
Max. re	ad-command size (words) : 32
Max, wri	te-command size (words): 32
	OK Cancel

5. Setting S7/400 IP, Port, Link type, Rack and CPU slot.(have to match PLC)

WEINTEK	PLC Connection Guide
IP Address Settings	
IP address : <b>1</b> . 0 . 0 . 0 Port no. : <b>1</b> 02	
Timeout (sec) : 1.0 💌 Turn around delay (ms) : 0	
Link type : PG	
Rack (0~7): 0 🕜 CPU slot (2~31): 3 🔗	
OK Cancel	

6. The setting will be finished As below,.

Device Properties					
Name ;	SIEMENS S7/400 (Ethernet)				
Location :	OHMI ⊙PLC Local Settings				
PLC type :	SIEMENS S7/400 (Ethernet)				
	V.1.00, SIEMENS_S7_400_ETHERNET.so				
PLC I/F : Ethernet PLC default station no. : 1					
	Use UDP (User Datagram Protocol )				
IP ;	192.168.1.1, Port=102				
Inter	val of block pack (words) : 5				
Max. rea	ad-command size (words) : 32 👻				
Max, writ	te-command size (words) : 32				
	OK Cancel				



# SIMATIC TI505

SIMATIC TI505 Series PLCs: TI520, TI525, TI530, TI535, TI545, TI555, TI560, TI565, TI575 Using the NITP protocol in a point-to-point single master, single slave format. <u>http://www.ad.siemens.de/simatic/controller/index\_76.htm</u>

# HMI Setting:

Parameters Recommend		Option	Notes
PLC type	SIMATIC TI505		
Com port	RS232	RS232, RS485(4W)	
Baud rate	19200	19200	
Parity bit	Odd	Odd	
Data Bits	7	7	
Stop Bits	1	1	
PLC Station No.	0	Does not apply	

# **PLC Setting:**

Communication mode NITP protocol	Communication mode	NITP protocol
----------------------------------	--------------------	---------------

Bit/Word	Device Type	Format	Range	Memo	
В	CR	ddddd	ddddd:1~65535	Internal Relay	
В	Х	ddddd	ddddd:1~65535	Discrete input coils	
В	Y	ddddd	ddddd:1~65535	Discrete output coils	
W	V	ddddd	ddddd:1~65535	User data registers	
W	STW	ddddd	ddddd:1~65535	Status word registers	
W	ТСР	ddddd	ddddd:1~65535	Timer/counter preset values	
W	TCC	ddddd	ddddd:1~65535	Timer/counter current values	
W	WX	ddddd	ddddd:1~65535	Word discrete inputs	
W	WY	ddddd	ddddd:1~65535	Word discrete outputs	



RS-232:

#### MT8000 HMI

9P D-SUB

#### SIMATIC TI505 25Pin D-SUB

CO	OM1 [RS232]	CC	DM2 [RS232]	CC	OM3 [RS232]	
3	ТХ	4	ТХ	7	ТХ	
2	RX	6	RX	8	RX	
5	GND	5	GND	5	GND	

3	RXD
2	TXD
7	GND
4	RTS
5	CTS
6	DSR
8	DCD
20	DTR

#### RS-232:

MT8000 HMI

9P D-SUB

#### SIMATIC TI505 9Pin D-SUB

COM1 [RS232]	COM2 [RS232]	COM3 [RS232]	
3 TX	4 TX	7 TX	2 RXD
2 RX	6 RX	8 RX	3 TXD
5 GND	5 GND	5 GND	5 GND

3 TXD
5 GND
7 RTS
8 CTS
1 DCD
 4 DTR
6 DSR

RS485 4W:

MT8000HMI

COM1 RS-485/4w

#### SIMATIC TI505 9Pin D-SUB

9P D-SUB

1	RX-	7	DO(-)
2	RX+	1	DO(+)
3	TX-	8	DI(-)
4	TX+	5	DI(+)
5	GND	6	GND



Version	Date	Description of Changes
V1.10	Apr/22/2009	



# **TAIAN TP02 Series**

#### TAIAN TP02 series

http://www.taian-technology.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Taian TP02		
Com port	RS485 4W/2W	RS485 4W/2W	MMI 422 port:4W; RS485
			terminals:2W
Baud rate	19200	9600, 19200, 38400	
Parity bit	Even	Even, Odd, None	
Data Bits	7	7, 8	
Stop Bits	2	1, 2	
PLC Station No.	1	0-255	

### **PLC Setting:**

#### RS422 port:WS041=120,WS042=1; RS485 terminals:WS044=120,WS045=1.

Bit/Word	Device Type	Format	Range	Memo
В	Х	ddd	1~384	Input relay
В	Y	ddd	1~384	Output relay
В	С	dddd	1~2048	Auxiliary relay
W	Х	ddd	1-369 (must be 1 or a multiple of plus 1)	Input register
W	Y	ddd	1-369 (must be 1 or a multiple of plus 1)	Output register
W	V	dddd	1~1024	Auxiliary register
W	D	dddd	1~2048	Auxiliary register
W	WS	ddd	1~128	System register
W	С	dddd	1-2033 (must be 1 or a multiple of plus 1)	Auxiliary relay register
W	WC	ddd	1~912	Constant register



TP02 Series MMI RS422 port MT8000 RS-485 4w 9P D-SUB

### TP02 series PLC CPU RS422 port 9P D-SUB Female

1	RX-	8	TX-
2	RX+	3	TX+
3	TX-	7	RX-
4	TX+	2	RX+

#### TP02 Series RS485 Terminals

MT8000 RS-485 2w	TP02 series PLC
9P D-SUB	RS485 Terminals
1 RX-	T/R-
2 RX+	T/R+

Version	Date	Description of Changes
V1.10	Jan/25/2010	

# **TAIAN TP03 Series**

TECO (TAIAN TP03) series PLC http://www.teco.com.tw/sa/en/

# **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	TAIAN TP03 Series		
Com port	RS485 4w		
Baud rate	19200	9600, 19200	
Parity bit	None	Even, Odd, None	
Data Bits	8	8	
Stop Bits	2	1	
PLC Station No.	1	1-31	

Bit/Word	Device Type	Format	Range	Memo
В	С	dddd	0 ~ 9999	
В	М	dddd	0 ~ 9999	
В	S	dddd	0 ~ 9999	
В	Т	dddd	0 ~ 9999	
В	Х	000	0~377	
В	Y	000	0~377	
W	D	dddd	0 ~ 9999	
W	V	dddd	0 ~ 9999	
W	Z	dddd	0 ~ 9999	
W	T_Curent	dddd	0 ~ 9999	
W	C_Curent	dddd	0 ~ 9999	
W	T_Preset	dddd	0 ~ 9999	
W	C_Preset	dddd	0 ~ 9999	



MT8000 RS-485 4w		TP03 PC/PDA port	876
9P D-SUB		8 Pin mini DIN	
1 RX-	]	4 TX-	
2 RX+		7 TX+	
5 GND		- 3 GND	8 Pin mini
3 TX-		1 RX-	DIN Female
4 TX+		2 RX+	

Version	Date	Description of Changes
V1.00	Apr/22/2009	

# **TECO Inverter**

### TECO Inverter series, 7300CV model

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	TECO Inverter		
Com port	RS232	RS232/RS485	
Baud rate	38400		
Parity bit	None		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	1		

Bit/Word	Device Type	Format	Range	Memo
В	0x	ddddd	1-65535	Output bit
В	1x	ddddd	1-65535	Input bit (read only)
В	3x_Bit	dddd(dd)	100-6553515	Input Register bit (read only)
В	4x_Bit	ddddd(dd)	100-6553515	Output Register bit
В	0x (0x0f)	ddddd	1-65535	Write Multiple Coils
W	3x	ddddd	1-65535	Input Register (read only)
W	4x	ddddd	1-65535	Output Register
DW	5x	ddddd	1-65535	4x double word swap
W	6x	ddddd	1-65535	4x single word write



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RTS

# Wiring diagram:

MT8000 JNSIF-232Wiring Diagram: THREE-PHASE POWER SUPPLY RS-232 THREE-PHASE POWER SUPPLY TSERIES INVERTER CON2 (12P) MT8000 RS-232 PD -SUB COM1 3 TX 2 RX 2 RX 3 AX C COND		JNSIF-232	
JNSIF-232Wiring Diagram:         IHREE-PHASE $POWER SUPPLY + L1(L) + 12 + 12 + 12 + 12 + 12 + 12 + 12 + 1$	M18000	0.0011 202	•
THREE-PHASE $11(L)$ $11$ $11(L)$	JNSIF-232Wir	ing Diagram:	
MT8000 RS-232   TECO Inverter     9P D-SUB   RS232     COM1   2     3   TX     2   RX     3   AX	P RS-232	THREE-PHASE OWER SUPPLY JNSIF-232	) T1 T2 ) T3 300CV ERIES IVERTER 2 (12P)
9P D-SUB     RS232       COM1     2       3     TX       2     RX       5     CND	MT8000 RS-232		TECO Inverter
COM1     2 RX       2 RX     3 AX       5 CND     5 CND	9P D-SUB		RS232
3 TX     2 RX       2 RX     3 AX       5 CND     5 CND	COM1		
2 RX 3 AX	3 TX	_	2 RX
	2 RX 5 CND	-	3 AX

VCC

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Version	Date	Description of Changes
V1.00	Jul/27/2009	



# **TELEMECANIQUE** UniTelway

Modicon TSX Micro&Nano&Neza series PLC

http://www.modicon.com

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Telemecanique		
	UniTelWay		
Com port	RS485	RS232/RS485	
Baud rate	9600	9600~115200	Must same as the PLC setting
Parity bit	Odd	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must set as 8 to this protocol
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	5	1-8	Must set by manual
PLC Station No.	0	0-3	

Online Simulator	YES	Extend address mode	YES
Broadcast command	NO		

# **PLC Setting:**

Communication mode UniTelWay protocol, set PLC as master

Bit/Word	Device Type	Format	Range	Memo
В	S	ddd	0-32767	Internal relay
В	М	ddd	0-32767	Auxiliary relay
В	MW.B	ddd(dd)	0-999915	Data register bit
W	MW	ddd	0-9999	Data register



### TSX37-XX/TSX07-XX CPU

COM1

1 RX-

2 RX+

5 GND

#### MT8000 RS-485 9P D-SUB

COM3

6 Data-

9 Data+

5 GND

TSX	series	CPU	port

8P mini-din Female

2 D-

1 D+

7 GND



8Pin m	iniDin	Female
--------	--------	--------

Version	Date	Description of Changes	
V1.20	Sep/24/2009		

# **Toshiba T Series**

Toshiba T series, S2E http://www.tic.toshiba.com

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Toshiba T Serial		
Com port	RS232	RS232/RS485	In accordance with plc port
Baud rate	9600	9600, 19200,38400,57600,115200	Must same as the PLC setting
Parity bit	Odd	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must same as the PLC setting
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	0	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	In accordance with PLC setting

Online Simulator	YES	Extend address mode	YES
Broadcast command			

## **PLC Setting:**

Communication mode	Must set PLC node ID
--------------------	----------------------

Bit/Word	Device Type	Format	Range	Memo
В	Х	ddd(h)	0-9999f	Input Bit
В	Y	ddd(h)	0-9999f	Output Bit
В	R	ddd(h)	0-9999f	Auxiliary Bit
В	S	ddd(h)	0-9999f	Special Bit
W	Т	ddd	0-9999	Timer Register
W	С	ddd	0-9999	Counter Register
W	D	ddd	0-9999	Data Memory
W	SW	ddd	0-9999	Special Register
W	XW	ddd	0-9999	Input Register
W	YW	ddd	0-9999	Output Register
W	RW	ddd	0-9999	Auxiliary Register





RS232

#### MT8000 RS232

#### Toshiba T1 PRG port

8P mini-D

8 RXD
6 TXD
5 GND
4 RTS
7 CTS



			9P D-SUB		
	COM1		COM2		COM3
3	TX	4	ΤХ	7	ТХ
2	RX	6	RX	8	RX
5	GND	5	GND	5	GND

#### MT8000 RS232

#### 9P D-SUB

#### Toshiba T2 PRG port

9P D-SUB Female

	COM1		COM2		COM3		
3	TX	4	TX	7	TX	2	RXD
2	RX	6	RX	8	RX	3	TXD
5	GND	5	GND	5	GND	- 5	GND
						- 7	RTS
						8	CTS

#### RS485

#### MT8000 COM1

#### RS485

#### **Toshiba T2 LINK port** 15P D-SUB Female

9P D-SUB

1 RX-	11 TXB
2 RX+	3 TXA
3 TX-	10 RXB
4 TX+	2 RXA
5 GND	7 SG
	5 RTSA
	4 CTSA
	13 RTSB
	12 CTSB



Version	Date	Description of Changes
V1.00	Sep/15/2009	

# **Toshiba TC mini Series**

### TOSHIBA MACHINE CO., JAPAN

Web Site: http://www.toshiba-machine.co.jp

# **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Provisor TC200	Provisor TC200	
Com port	RS232	RS232	In accordance with plc port
Baud rate	9600	9600, 19200	Must same as the PLC setting
Parity bit	None	Even, Odd, None	Must same as the PLC setting
Data Bits	8	7,8	Must same as the PLC setting
Stop Bits	1	1, 2	Must same as the PLC setting
HMI Station No.	0		Does not apply to this protocol
PLC Station No.	0		Does not apply to this protocol

Bit/Word	Device Type	Format	Range	Memo
В	X_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
В	Y_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
В	R_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
В	L_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
W	V	hhh	0-fff	
W	Р	hhh	0-fff	
W	D	hhh	0-fff	
W	R	hhh	0-fff	
W	L	hhh	0-fff	



RS232

MT8000 HMI

RS232 9P D-SUB

TC mini series 9P D-SUB

COM1	COM2	COM3
3 TX	4 TX	7 TX -
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

3 RXD
2 TXD
5 GND
7 RTS
9 CTS

# Toshiba VF-S11

### Toshiba Invertor Protocol(ASCII code)

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Toshiba VF-S11		
Com port	RS485(2 wire)	RS422, RS485	
Baud rate	9600	9600, 19200	
Parity bit	Even	Even, Odd, None	
Data Bits	8	7 or 8	
Stop Bits	1	1 or 2	
HMI Station No.	0		
PLC Station No.	0	0-99	

Online Simulator	YES	Extend address mode	YES
Broadcast command	YES		

# **PLC Setting:**

Communication mode	9600 E,8,1, Station No=0
--------------------	--------------------------

Bit/Word	Device Type	Format	Range	Memo
Word	Communication No.	HHH	HHH:0~ 0FFF	Parameters and data memory
Bit	Comm.No.Bit	HHH(DD)	HHH(DD):0-FFF(15)	



#### **Pay Attention:**

Before you connect the VF-S11, make sure you to put both switches of SW1 to the related position. (SW1: Wiring method selector switch)



### **RS-485**

MT800	00 RS-485			
9P I	D-SUB		VFFS1-VFPS1	TIIIII
COM1	COM3		RJ45	1 8
1 RX-	6 Data-		5	
2 RX+	9 Data+		4	
5 GND	5 GND		8	



Version	Date	Description of Changes
V1.20	Aug/31/2009	



# VIGOR

#### VIGOR M Series

http://www.vigorplc.com.tw/

# **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	VIGOR		
Com port	RS232	RS232, RS485 4wires,	
Baud rate	19200		
Parity bit	Even		
Data Bits	7		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	1		

# **PLC Setting:**

Communication mode	None

Bit/Word	Device Type	Format	Range	Memo
В	Х	000	0~177	
В	Y	000	0~177	
В	М	dddd	0~4095	
В	S	ddd	0~999	
В	Т	ddd	0~255	
В	С	ddd	0~255	
W	TV	ddd	0~255	
W	CV	ddd	0~255	
W	D	dddd	0~4095	
W	DL	dddd	0~4095	Double word



RS-485 4wire:

#### COM1 RS485 4w

VIGOR M series 6pin terminal

9P D-SUB Male

1 RX-	TX-
2 RX+	TX+
3 TX-	RX-
4 TX+	RX+
5 GND	SG
	24V

RS-232:

#### MT8000 RS232

VIGOR M series COM Port

			9P D-SUB			com	
	COM1		COM2		COM3		
3	ΤХ	4	ΤХ	7	TX	2	RXD
2	RX	6	RX	8	RX	3	TXD
5	GND	5	GND	5	GND	5	GND

Version	Date	Description of Changes
V1.00	Dec/30/2008	

# YAMAHA ERCD

# **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	YAMAHA ERCD		
Com port	RS232		
Data Bits	8	7 or 8	Must match the PLC's port setting.
Stop Bits	1	1 or 2	Must match the PLC's port setting.
Baud rate	9600	1200-19200	Must match the PLC's port setting.
Parity bit	Odd	None/Even/Odd	Must match the PLC's port setting.
PLC station	0		De not need to get the station No
No.	U		Do not need to set the station No.

Bit/Word	Device type	Format	Range	Memo
Word	Р	ddd	0-999	Read/Write, PNT point data
Word	SWI	ddd	0	Write only, RW0=program number, Switches program number to be run
Word	ORG	ddd	0	Write only, Returns to origin
Word	Reset	ddd	0	Write only, Reset program
Word	RUN	ddd	0	Write only, Starts automatic operation
Word	MOVD	ddd	0	Write only, Directly moves to specified position RW1=X-axis position(mm), RW2=speed
Word	X_ADD	ddd	0	Write only, X + command
Word	X_SUB	ddd	0	Write only, X - command



MT8000 RS232		PB
9P D-SUB		RS232
COM1		
3 TX		3 TX
2 RX		2 RX
5 GND		5 GND
	-	7 RTS
		8 CTS

Version	Date	Description of Changes
V1.10	Aug/08/2009	

# YASKAWA SMC3010

### YASKAWA SMC Series Servo Motor Controller

### **HMI Setting:**

Parameters	Recommend	Option	Notes
Device type	YASKAWA SMC 3010		
Com port	RS232		
Baud rate	19200	9600, 19200	
Parity bit	None		
Data Bits	8		
Stop Bits	1		

Bit/Word	Device Type	Format	Range	Memo
В	AF	d	0~1	
В	BN	d	0~1	Write only
В	BP	d	0~1	Write only
В	BV	d	0~1	Write only
В	СВ	dddd	0 ~ 9999	Write only
В	СМ	d	0~1	Read only
В	DV	d	0~1	
В	EB	d	0~1	
В	OE	d	0~1	
В	RS	d	0~1	Write only
В	ST	d	0~1	Write only
В	ТВ	d	0~1	Read only
В	V_bit	DDDdd	DDD:0~999, dd:0~31	*2
DW	AC	d	0~4	
DW	DC	d	0~4	
DW	BL	d	0~4	
W	CD	d	0~2	Write only
W	CE	d	0~2	
DW	DE	d	0~4	
DW	DP	d	0~4	
W	DT	d	0~2	

WEINTEK PLC Connection Guide				
Bit/Word	Device Type	Format	Range	Memo
W	EC	d	0~2	
DW	EM	d	0~4	
W	ER	d	0~2	
W	FA	d	0~2	
DW	FL	d	0~4	
W	FV	d	0~2	
DW	GR	d	0~4	
DW	JG	d	0~4	
DW	MM	d	0~4	
W	MT	d	0~2	
W	NA	d	0~2	
W	ОР	d	0~2	
DW	РА	d	0~4	Write only
DW	PR	d	0~4	
DW	SP	d	0~4	
W	TC	d	0~2	Read only
W	ТМ	d	0~2	
W	TW	d	0~2	
DW	VA	d	0~4	
DW	VD	d	0~4	
DW	VS	d	0~4	
DW	IL	d	0~4	
DW	IT	d	0~4	
DW	KD	d	0~4	
DW	KI	d	0~4	
DW	КР	d	0~4	
DW	OF	d	0~4	
DW	TL	d	0~4	
DW	VR	d	0~4	
DW	VT	d	0~4	
DW	PF	d	0~4	*1
DW	VF	d	0~4	
DW	V	DDD	0 ~ 999	*2
F	F	DDD	0 ~ 999	*2

Note:



- \*1 PF is the communication parameter of SMC\_3010, default is 10.4, if the value is not 10.4, all values will be displayed incorrect.
- \*2 User define integer variable V000~V999, floating point variable F000~F999.

MT8000 RS232
9P D-SUB

SMC3010 CN6 RS232 9 pin male D-sub

CTS

8

				9 pm maie	D-sub	
COM1	COM2	COM3		- 		
3 TX	4 TX	7 TX		3	RXD	
2 RX	6 RX	8 RX		2	TXD	
5 GND	5 GND	5 GND		5	GND	
			_ 	- 7	RTS	

Version	Date	Description of Changes
V1.2.0	Feb/10/2010	



# YASKAWA SMC 3010 (Ethernet)

### YASKAWA SMC Series Servo Motor Controller

### **HMI Setting:**

Parameters	Recommend	Option	Notes
Device type	YASKAWA SMC 3010		
Com port	Ethernet	Port:23	
Baud rate			
Parity bit			
Data Bits			
Stop Bits			

Bit/Word	Device Type	Format	Range	Memo
В	AF	d	0 ~ 1	
В	BN	d	0 ~ 1	Write only
В	BP	d	0 ~ 1	Write only
В	BV	d	0 ~ 1	Write only
В	СВ	dddd	0 ~ 9999	Write only
В	СМ	d	0 ~ 1	Read only
В	DV	d	0 ~ 1	
В	EB	d	0 ~ 1	
В	OE	d	0 ~ 1	
В	RS	d	0 ~ 1	Write only
В	ST	d	0 ~ 1	Write only
В	TB	d	0 ~ 1	Read only
В	V_bit	DDDdd	DDD:0~999, dd:0~31	*2
DW	AC	d	$0 \sim 4$	
DW	DC	d	$0 \sim 4$	
DW	BL	d	$0 \sim 4$	
W	CD	d	0~2	Write only
W	CE	d	0~2	
DW	DE	d	0 ~ 4	
DW	DP	d	0~4	
W	DT	d	0~2	

WE!N	WEINTEK PLC Connection Guide				
Bit/Word	Device Type	Format	Range	Memo	
W	EC	d	0~2		
DW	EM	d	0~4		
W	ER	d	0~2		
W	FA	d	0~2		
DW	FL	d	$0 \sim 4$		
W	FV	d	0~2		
DW	GR	d	0~4		
DW	JG	d	0~4		
DW	MM	d	$0 \sim 4$		
W	MT	d	0~2		
W	NA	d	0~2		
W	OP	d	0~2		
DW	PA	d	0~4	Write only	
DW	PR	d	0~4		
DW	SP	d	0~4		
W	TC	d	0~2	Read only	
W	ТМ	d	0~2		
W	TW	d	0~2		
DW	VA	d	0~4		
DW	VD	d	$0 \sim 4$		
DW	VS	d	0~4		
DW	IL	d	0~4		
DW	IT	d	$0 \sim 4$		
DW	KD	d	$0 \sim 4$		
DW	KI	d	0~4		
DW	KP	d	0~4		
DW	OF	d	0~4		
DW	TL	d	0~4		
DW	VR	d	0~4		
DW	VT	d	0~4		
DW	PF	d	0~4	*1	
DW	VF	d	0~4		
DW	V	DDD	0~999	*2	
F	F	DDD	0~999	*2	

Note:



\*1 PF is the communication parameter of SMC\_3010, default is 10.4, if the value is not 10.4, all values will be displayed incorrect.

\*2 User define integer variable V000~V999, floating point variable F000~F999.

### Wiring diagram:

#### Ethernet:

MT80 RJ45	00 Ethernet	Wire color	Ethernet Hub or Switch RJ45	
1	TX+	White/Orange	1 RX+	
2	TX-	Orange	2 RX-	
3	RX+	White/Green	3 TX+	RJ45
4	BD4+	Blue	4 BD4+	
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	



MT80	00 Ethernet	Wire color		SMC 3	010 Ethernet
RJ45			_	module	e RJ45
1	TX+	White/Orange		3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown		7	BD3+
8	BD3-	Brown		8	BD3-

Version	Date	Description of Changes
V1.0.0	Feb/22/2010	

# Yokogawa FA-M3

FA-M3 CPU SP35-5N, SP55-5N CPU port, F3LC11 Computer Link module. <u>http://www.yokogawa.com/itc/itc-index-en.htm</u>

## **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Yokogawa FA-M3		
Com port	RS232		
Baud rate	19200	9600, 19200	
Parity Bit	Even	Even, Odd, None	
Data Bits	8	8	
Stop Bits	1	1	
HMI Station No.	0		
PLC Station No.	1	1-31	

# **PLC Setting:**

Communication mode	Use Personal Communication Link
	Use checksum
	Use End Character

Bit/Word	Device Type	Format	Range	Memo
В	Х	ddd	201-71664(discontinuous)	
В	Y	ddd	201-71664(discontinuous)	
В	Ι	ddd	1-16384	
В	L	ddd	1-71024(discontinuous)	
В	М	ddd	1-9984	
W	D	ddd	1-8192	
W	В	ddd	1-32768	
W	V	ddd	1-64	
W	W	ddd	1-71024(discontinuous)	

WE!	NTEK			PLC Connection Guide
W	Z	ddd	1-512	

RS-232: CPU port

MT8000 RS232

9P D-SUB

CPU port cable KM11 RS-232

#### MT8000 RS232

			9P D-SUB				
C	OM1		COM2		COM3		
3 T	TX 4	4	ТХ	7	TX	3	RX
2 R	RX (	6	RX	8	RX	2	ТХ
5 0	GND :	5	GND	5	GND	5	GN

#### RS-232: LC11

MT8000 RS232

9P D-SUB Female

LC11 Computer

Link module RS232

Port

	COM1		COM2		COM3		
3	ΤХ	4	TX	7	ТΧ		2 RXD
2	RX	6	RX	8	RX		3 TXD
5	GND	5	GND	5	GND		5 GND
							7 RTS
							8 CTS

### How to get the WideField communication setting

If you want get the WideField communication setting, select [Tool]->[Set Environment] default is Automatic. Using the Automatic Recognition, Wide Field software will connect the Current PLC and get the PLC communication setting. If you have know the PLC communication configuration, you also can select the Fixed mode ,It will connect the PLC quickly.

etup Circuit Display	Setup Program	Syntax Check Setup Cor	Setup Toolbar
Communication Media • RS-232C • RS	-232C via Modem	C Ethernet	Setup Modem
RS-232C Communication Connection Method Automatic Recognit Communication Timeo Number of Retries COM Port Number	ion C Fixed ut	19200bps Even 1 1 2 1	Parity ¥
Ethernet Communication Destination IP Address CPU Number Connection Timeout	1	▼ 	

P.S Because use Personal computer link, when you connecting to PLC it will delay about 20sec for test communication.

# How to Setting YOKOGAWA PLC Communcation

### configuration.

YOKOGAWA FA-M3 CPU SP55-5N (same SP35-5N) [File]->[New Project] to create a new project

	PLC Connection Guide
🤣 WideField	
Eile Edit Find(S) View Online D	ebug/Maintenance Iool Window Help
New Project(M) Open Project(H) Close Project	
New Qpen Close	Ctrl+N
Save Save As	Cirl+S
Print Setup Print	Ctrl+P
Open CADM3 Executable Program(1) Open CADM3 File( <u>K</u> )	
Exit	
RDY RUN ALM ERR	Step   Run   ms   LE YX Stop   Install ROM   SCB ms
Creates a new project.	

click "Configuration" for setup communication.

Project Executable program Component Definition Configuration
Common Tag Name D Block Components
H GOCK LIST Acro List
4

0600bps Even Parity	
tup CPU Personal Computer Link	
🗖 Use Personal Computer Link	
T Checksum	
🗖 End Character	
F Protection	

WEINTEK	PLC Connection Guide
Configuration	×
Configuration         Device Capacities       Operation Control       Setup Initial Data       Setup         Setup Communication       Setup ROM       Setup Interrupt       Pow         Communication Mode       Image: Communication Mode       Set Use Personal       Control       Set Use Personal         Image: Setup CPU Personal Computer Link       Image: Setup CPU Personal Computer Link       End Character       End Character         Image: Setup CPU Personal Computer Link       Image: Checksum       Image: Checksum       Image: Checksum         Image: Checksum       Image: Checksum       Image: Checksum       Image: Checksum         Image: Checksum <th>DIO   Setup FA Link  Sampling Trace er Failure/Local   Setup Shared Refreshing</th>	DIO   Setup FA Link  Sampling Trace er Failure/Local   Setup Shared Refreshing
	Cancel Help

# **Driver Version:**

Version	Date	Description of Changes
V1.10	Jan/01/2009	

# Yokogawa FA-M3 (Ethernet)

FA-M3 CPU SP35-5N, SP55-5N with F3LE01-5T/F3LE11-0T Ethernet module. http://www.yokogawa.com/itc/itc-index-en.htm

### **HMI Setting:**

Parameters	Recommend	Option	Notes
PLC type	Yokogawa FA-M3 (Ethernet)		
Com port	Ethernet		
TCP port no.	12289		
HMI Station No.	0		
PLC Station No.	1		

# **PLC Setting:**





## 

### **Device address:**

Bit/Word	Device Type	Format	Range	Memo
В	Х	ddd	201-71664(discontinuous)	
В	Y	ddd	201-71664(discontinuous)	
В	Ι	ddd	1-16384	
В	L	ddd	1-71024(discontinuous)	
В	М	ddd	1-9984	
W	D	ddd	1-8192	
W	В	ddd	1-32768	
W	V	ddd	1-64	
W	W	ddd	1-71024(discontinuous)	
W	Z	ddd	1-512	

# Wiring diagram:

#### Ethernet:

MT80	00 Ethernet	Wire color	Ethernet Hub or Switch	
RJ45			RJ45	
1	TX+	White/Orange	1 RX+	1 8
2	TX-	Orange	2 RX-	
3	RX+	White/Green	3 TX+	RJ45
4	BD4+	Blue	4 BD4+	connector
5	BD4-	White/Blue	5 BD4-	
6	RX-	Green	6 TX-	
7	BD3+	White/Brown	7 BD3+	
8	BD3-	Brown	8 BD3-	

#### Ethernet: Direct connect (crossover cable)

MT80	00 Ethernet	Wire color		FA-M3	Ethernet module
RJ45				RJ45	
1	TX+	White/Orange	]	3	RX+
2	TX-	Orange		6	RX-
3	RX+	White/Green		1	TX+
4	BD4+	Blue		4	BD4+
5	BD4-	White/Blue		5	BD4-
6	RX-	Green		2	TX-
7	BD3+	White/Brown	]	7	BD3+
8	BD3-	Brown	1	8	BD3-



Version	Date	Description of Changes
V1.00	Dec/30/2008	



# MT6050i/MT8050i Com Port Pin Assignment





**Bottom View** 

## MT6050i/MT8050i

Pin assignment of the 9 Pin, Male,



Pin assignment of the 9 Pin, Male, SUB-D, COM1 [RS-232]/ [RS-485], COM3 [RS-485] Port. Only

Com1[RS485 2W] support MPI 187.5K.

Pin#	Symbol	Com1[	[RS485]	Com1[RS232]	Com3[RS485]
		4 wire	2 wire		
1	Rx-	Rx-	Data-		
2	Rx+	Rx+	Data+		
3	Tx-	Tx-			
4	Tx+	Tx+			
5	GND			GND	
6	TxD			Transmit	
7	Data-				Data-
8	Data+				Data+
9	RxD			Receive	





#### MT6050i COM1 [RS-232]

#### 9P D-SUB Female

/	
9 RXD	TXD
6 TXD	 RXD
5 GND	GND

MT6050i COM1 [RS-485 2w]

PLC RS-485 2w

PLC RS-485 2w

PLC RS-232

#### 9P D-SUB Female

	_	
1 Data-		Data-
2 Data+		Data+
2 Data+		Data+

#### MT6050i COM3\* [RS-485 2w]

Communication Com Port interface

Communication Com Port interface

9P D-SUB	Female
9P D-80B	Female

7 Data-	]	Data-
8 Data+		Data+

\*RS485 2W COM3 is only available for MT6050iv2

#### MT6050i COM1 [RS-485 4w]

PLC RS-485 2w

9P D-SUB Female

Communication Com Port interface

1 RX-	]	TX-
2 RX	1	TX+
3 TX-	1	RX-
4 TX+	1	RX+

Communication Com Port interface