Chapter 22 Easy View MT8000 series HMI and PLC connecting guide

Allen-Bradley CompactLogix /FlexLogix

Allen-Bradley CompactLogix, FlexLogix CH0 DF1

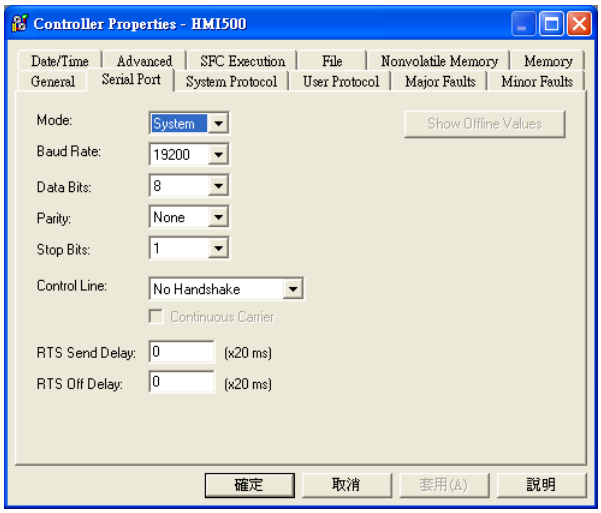
http://www.ab.com

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**

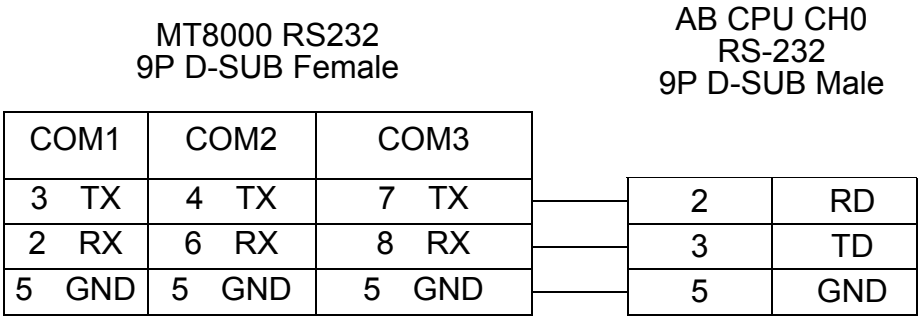


Device address:

Bit/Word	Device Type	Format	Range	Memo
B	B_BOOL	fffddd(dd)	File no. ff: 3, 10~255 Element no. ddd: 0~255 Bit no. (dd): 0~15	Bit data file
B	N_BOOL	fffddd(dd)	File no. ff: 7, 10~255 Element no. ddd: 0~255 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~255)
W	Bx_INT	fffddd	File no. fff: 3, 10~255 Element no. ddd: 0~255	Bit data file word level
DW	Tx.PRE	fffddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Preset Value (T4, T10~255)
DW	Tx.ACC	fffddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Accumulator Value (T4, T10~255)
DW	Cx.PRE	fffddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Preset Value (C5, C10~255)
DW	Cx.ACC	fffddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Accumulator Value (C5, C10~255)
F	F8_REAL	ddd	ddd:0~255	Floating point data file (F8)
DW	Nx_INT	Fffddd	File no. fff:0~255 Element no. ddd:0~255	Integer data file (N7, 10~255)

Wiring diagram:

RS-232: ControlLogix, CompactLogix CPU CH0

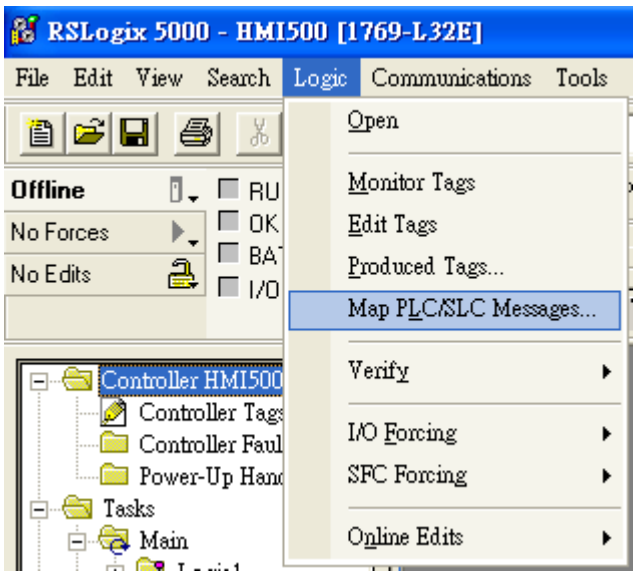


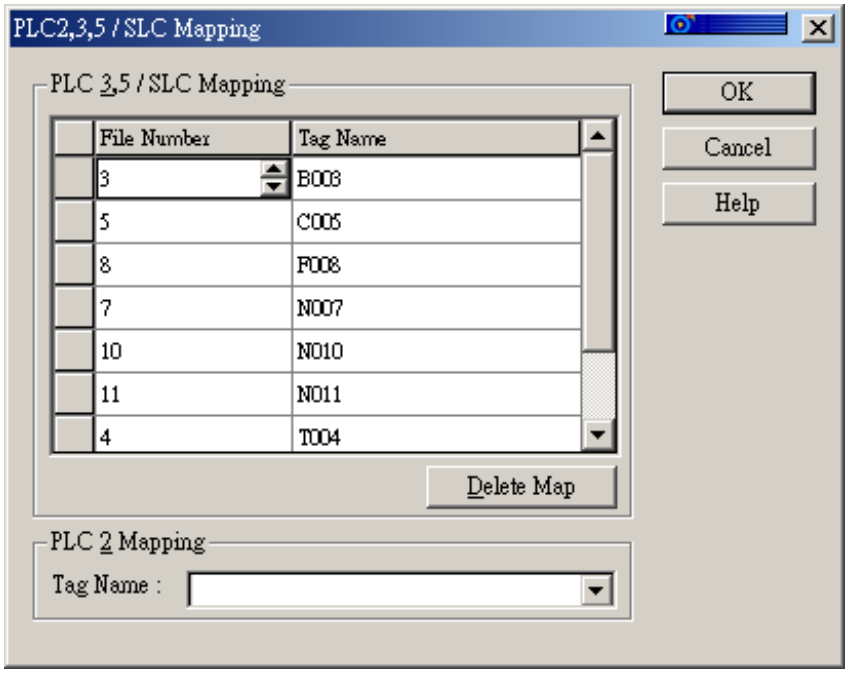
RS Logix 5000 setting

You can configure a mapping table to allow the controller to accept the PLC-2, 3, 5, or SLC/500 messages.

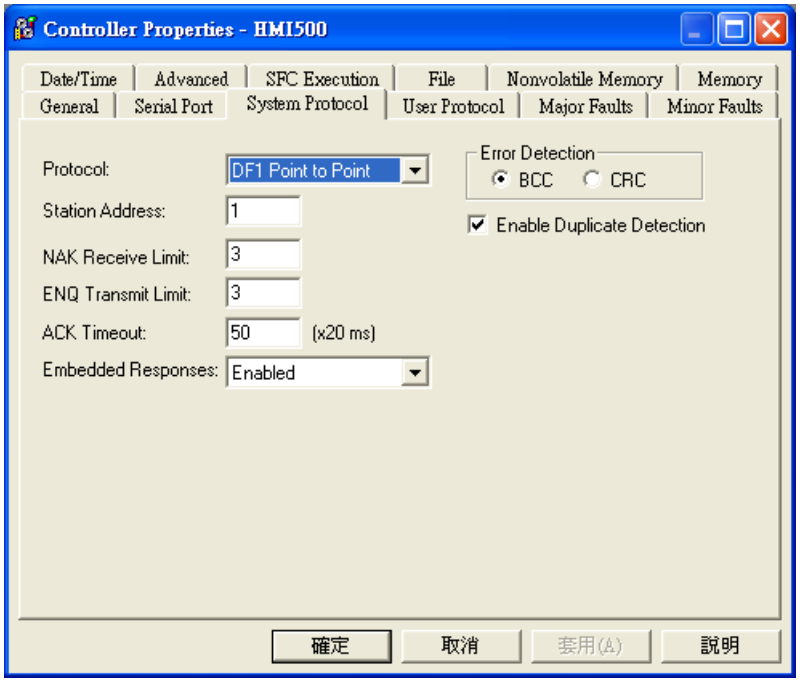
Configure Mapping for a PLC-3, PLC-5, or SLC/500 Processor

1. From the Logic menu, choose Map PLC Messages.
2. In the Mapping frame, enter the File Number and Tag Name to be mapped.
3. Click on OK to configure the mapping.

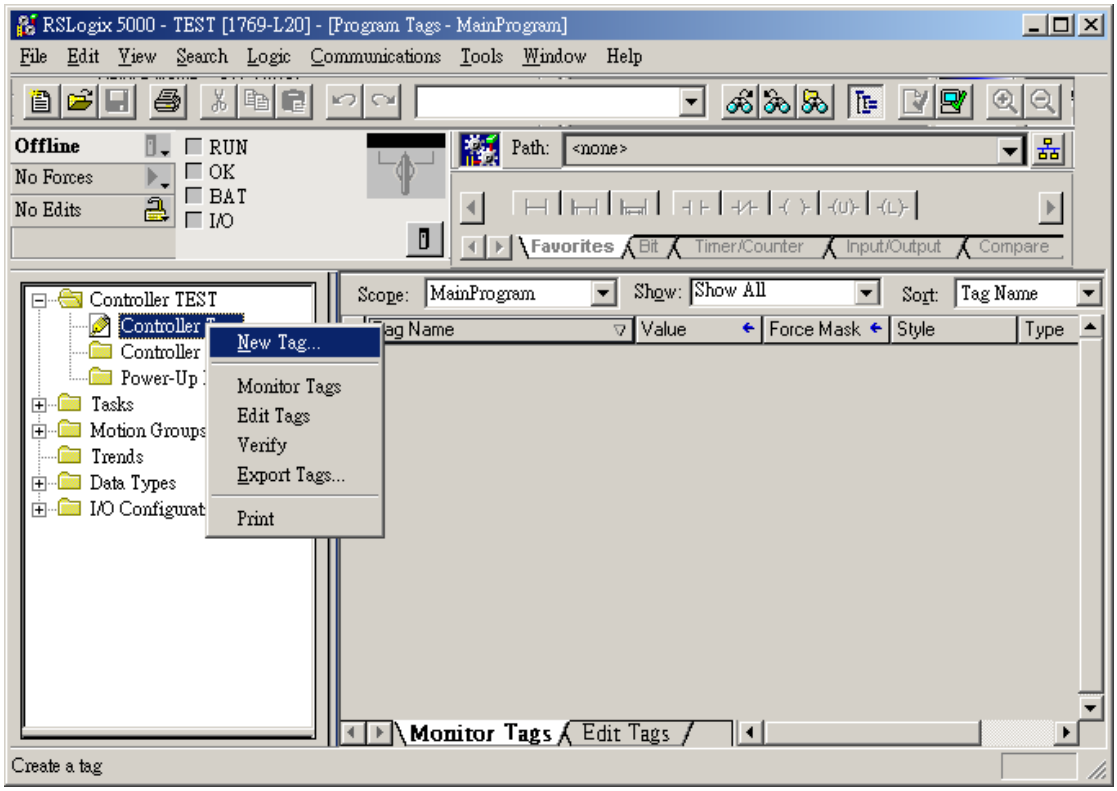

RSLogix 5000 - HMI500 [1769-L32E]
File Edit View Search Logic Communications Tools
Offline
No Forces
No Edits
Open
Monitor Tags
Edit Tags
Produced Tags...
Map PLC/SLC Messages...
Verify
I/O Forcing
SFC Forcing
Online Edits
Controller HMI500
Controller Tags
Controller Faul
Power-Up Hand
Tasks
Main


PLC2,3,5 / SLC Mapping
PLC 3,5 / SLC Mapping
File Number
Tag Name
3
B003
5
C005
8
F008
7
N007
10
N010
11
N011
4
T004
Delete Map
OK
Cancel
Help
PLC 2 Mapping
Tag Name :

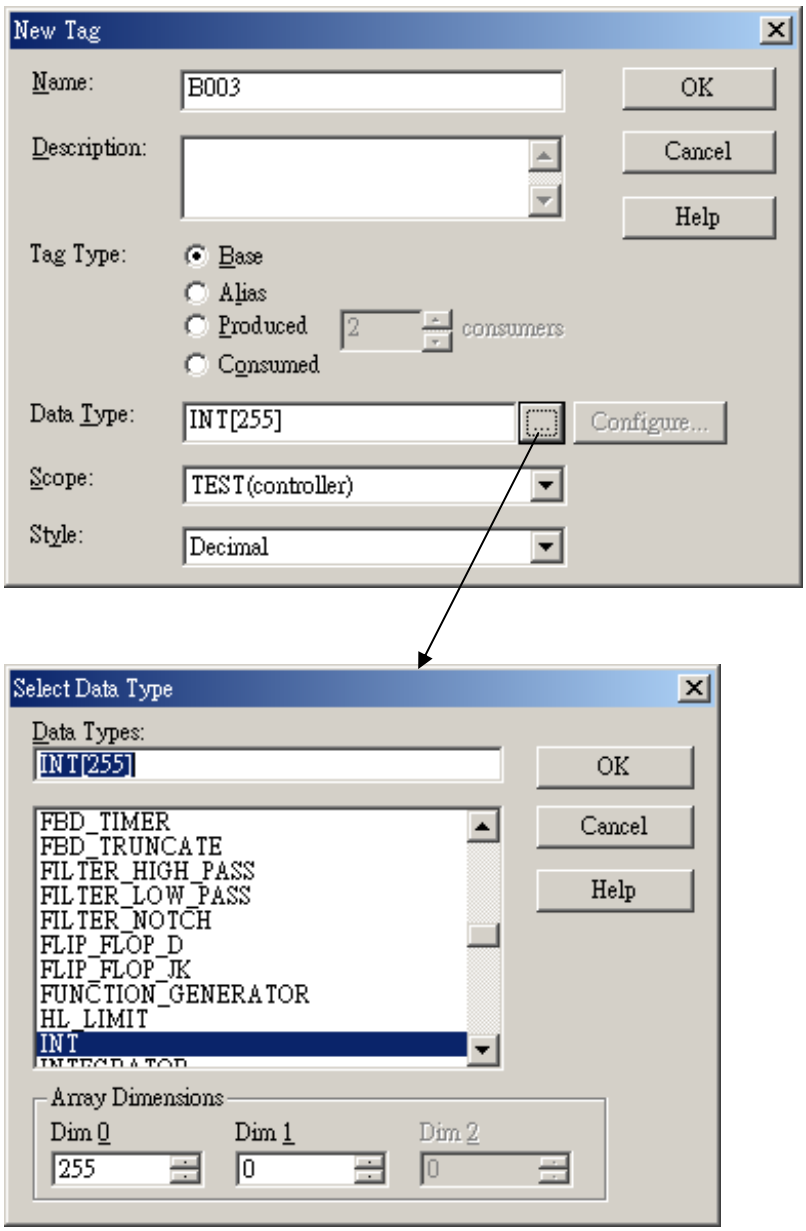
ControlLogix, CompactLogix CPU CH0 setting:



Create the Tag:



6


New Tag
Name:
B003
OK
Description:
Cancel
Help
Tag Type:
Base
Alias
Produced
2
consumers
Consumed
Data Type:
INT[255]
Configure...
Scope:
TEST(controller)
Style:
Decimal
Select Data Type
Data Types:
INT[255]
OK
Cancel
Help
FBD_TIMER
FBD_TRUNCATE
FILTER_HIGH_PASS
FILTER_LOW_PASS
FILTER_NOTCH
FLIP_FLOP_D
FLIP_FLOP_JK
FUNCTION_GENERATOR
HL_LIMIT
INT
Array Dimensions
Dim 0
Dim 1
Dim 2
255
0
0

Allen-Bradley EtherNet/IP CompactLogix

Allen-Bradley ControlLogix, CompactLogix, FelxLogix Ethernet

http://www.ab.com

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	

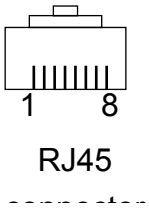
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	Bx_BOOL	ffddd(dd)	File no. ff: 3, 10~99 Element no. ddd: 0~999 Bit no. (dd): 0~15	Bit data file
B	Nx_BOOL	ffddd(dd)	File no. ff: 7, 10~99 Element no. ddd: 0~999 Bit no. (dd): 0~15	Integer data file bit level (N7, 10~99)
W	Bx_INT	fffddd	File no. fff: 3, 10~255 Element no. ddd: 0~255	Bit data file word level
W	Nx_INT	fffddd	File no. fff:0~255 Element no. ddd:0~255	Integer data file (N7, 10~99)
F	F8_REAL	ddd	ddd:0~255	Floating point data file (F8)
F	Fx_REAL	fffddd	File no. fff:0~255 ddd:0~255	Floating point data file (F8)
DW	Tx.PRE	fffddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Preset Value (T4, T10~255)
DW	Tx.ACC	fffddd	File no. fff: 4, 10~255 Element no. ddd: 0~255	Timer Accumulator Value (T4, T10~255)
DW	Cx.PRE	fffddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Preset Value (C5, C10~255)
DW	Cx.ACC	fffddd	File no. fff: 5, 10~255 Element no. ddd: 0~255	Counter Accumulator Value (C5, C10~255)

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-

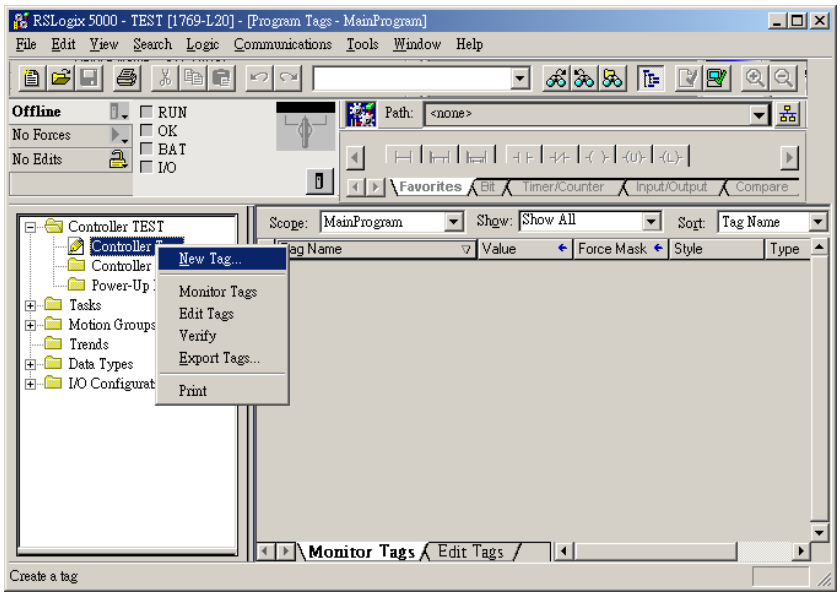


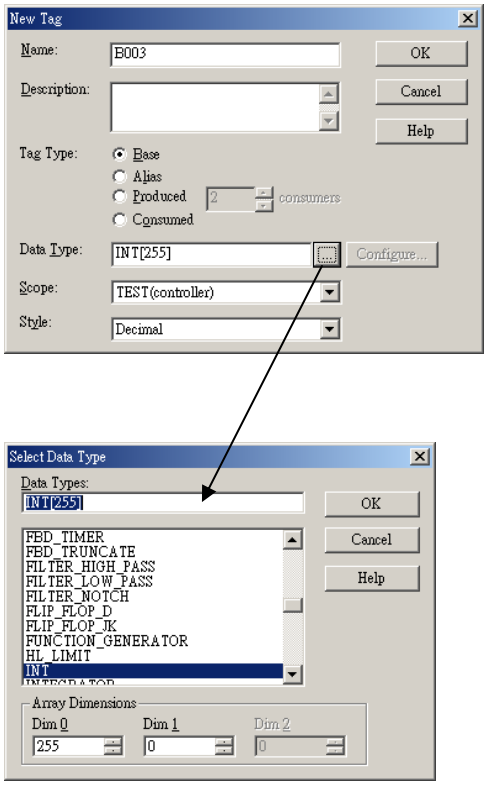
Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	CPU Ethernet port 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:




New Tag
Name:
B003
OK
Description:
Cancel
Help
Tag Type:
Base
Alias
Produced
2
consumers
Consumed
Data Type:
INT[255]
Configure...
Scope:
TEST(controller)
Style:
Decimal
Select Data Type
Data Types:
INT[255]
OK
Cancel
Help
FBD_TIMER
FBD_TRUNCATE
FILTER_HIGH_PASS
FILTER_LOW_PASS
FILTER_NOTCH
FLIP_FLOP_D
FLIP_FLOP_JK
FUNCTION_GENERATOR
HL_LIMIT
INT
Array Dimensions
Dim 0
Dim 1
Dim 2
255
0
0

Allen-Bradley DF1

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	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**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	S_Bit	ddd(dd)	ddd:0~254 (dd): 0~15	Status (S) bit level
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
B	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)
B	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
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

Bit/Word	Device Type	Format	Range	Memo
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)

Wiring diagram:

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

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

MicroLogix RS232
mini-DIN 8pin

4	RXD
7	TXD
8	GND

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

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

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

2	RD
3	TD
5	GND

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.**

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Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	B10~13	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B10~13)
B	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)
B	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)
B	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 Element no. ddd:0~254	Timer Preset Value
W	TfnPV	fffddd	File no. fff:0~254 Element no. ddd:0~254	Timer Accumulator Value
W	CfnSV	fffddd	File no. fff:0~254 Element no. ddd:0~254	Counter Preset Value
W	CfnPV	fffddd	File no. fff:0~254 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)
W	S	ddd	ddd:0~254	Status file

Wiring diagram:

RS-485: SLC500 Fixed type, SLC5/01,02,03 CH1.

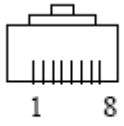
MT8000 can’t connect to 1747-AIC PERIPHERAL PORT

MT8000 RS485
9P D-SUB

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

AB SLC500 DH485
RJ8 clip style ports

2	SDB
1	SDA
7	GND



RJ8 connector

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

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

MicroLogix RS232
mini-DIN 8pin

4	RXD
7	TXD
8	GND

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

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

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

2	RD
3	TD
5	GND

Caution: AB DH485 supports MT8000 X series only.

Allen-Bradley EtherNet/IP (DF1)

Allen-Bradley MicroLogix 1100, 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 (DF1)		
Com port	Ethernet		
TCP Port no.	44818		
HMI Station No.	0		
PLC Station No.	1		

PLC Setting:

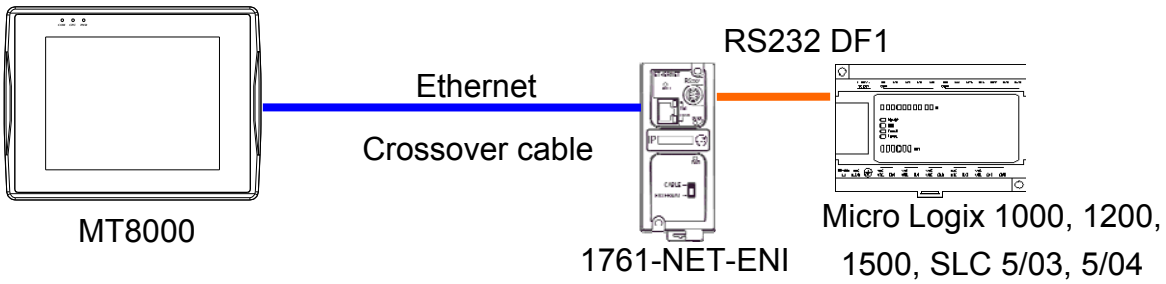
Communication mode	**Port Setting: 10/100 Mbps Full Duplex/Half Duplex**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	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)
B	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	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	Nfn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Integer data file (N7, 10~254)
32bit Float	F8	ddd	ddd:0~254	Floating point data file (F8)
32bit Float	Ffn	fffddd	File no. fff:0~254 Element no. ddd:0~254	Floating point data file (F8, 10~254)

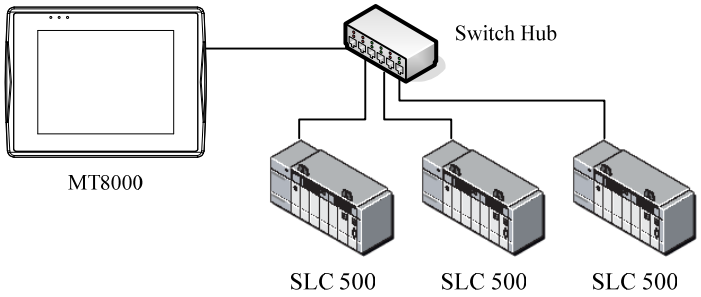
Wiring diagram:

Ethernet: Direct connect (crossover cable)

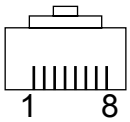


MT8000 Ethernet RJ45		Wire color	PLC RJ45	
1	TX+	White/Orange	3	RX+
2	TX-	Orange	6	RX-
3	RX+	White/Green	1	TX+
4	BD4+	Blue	4	BD4+
5	BD4-	White/Blue	5	BD4-
6	RX-	Green	2	TX-
7	BD3+	White/Brown	7	BD3+
8	BD3-	Brown	8	BD3-

Ethernet:



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-



RJ45

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)**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I1	ddd(dd)	ddd:0~254 (dd): 0~15	Input (I)
B	O0	ddd(dd)	ddd:0~254 (dd): 0~15	Output (O)
B	B3	ddd(dd)	ddd:0~254 (dd): 0~15	Bit data file (B3)
B	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 Element no. ddd:0~254	Integer data file (V2.5.0 or newer)
W	Ffn	fffddd	File no. fff:8,9~254 Element no. ddd:0~254	Floating point data file (V2.5.0 or 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]
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

AB CPU CH0 RS-232

25P D-SUB

3 RXD
2 TXD
7 GND

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:

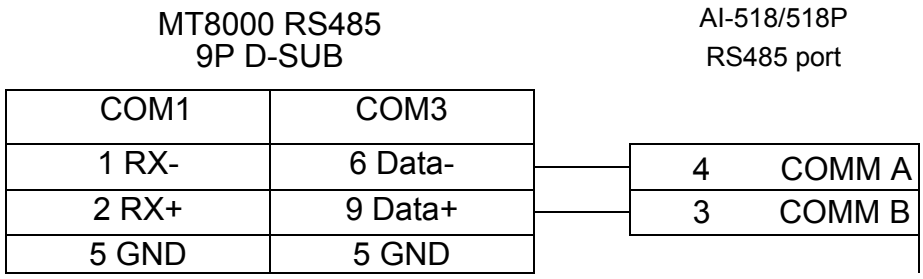
AI-518

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

AI-701

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

Wiring diagram:



Baumuller Servo

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**

Device address:

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

Wiring diagram:

RS-485 4W:

MT8000 HMI COM1
RS485 4W 9P D-SUB
Female

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

Baumuller servo
RS-422 9P D-SUB
Female

1	TXD-
9	TXD+
5	RXD-
6	RXD+
8	GND

Copley Controls

Digital Servo Driver & Controllers, Xenus, Xenus Micro, Accelnet, Accelnet Micro, Stepnet series

http://www.copleycontrols.com/motion/

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

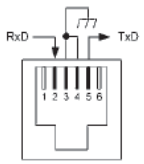
Wiring diagram:

Xenus, Xenus Micro, Accelnet

MT8000 RS232
9P D-SUB

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

Xenus Micro Panel
RS-232 RJ11
J7 cable connector



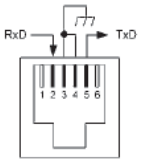
2	RXD
5	TXD
3, 4	GND

Stepnet

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

Stepnet
RS232 RJ11
J8 cable connector



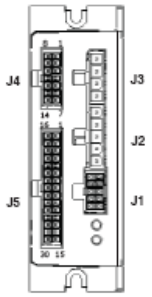
2	RXD
5	TXD
3, 4	GND

Accelnet Micro

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

Accelnet Micro
Panel RS-232
J5 cable connector



14	RXD
29	TXD
15	GND

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	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0 ~ 23417 (Octal)	Input
B	Y	ooo	0 ~ 23417 (Octal)	Output
B	M	dddd	0 ~ 9999	Auxiliary Relay
B	S	dddd	0 ~ 9999	Step Relay
B	T	dddd	0 ~ 9999	Timer
B	C	dddd	0 ~ 9999	Counter
B	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

Wiring diagram:

1. RS232: CPU port

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

DELTA DVP CPU
port
8p mini DIN

4	RXD
5	TXD
3/8	GND

8Pin Mini-Din Female

2. RS485: CPU port

MT8000 RS232

DELTA DVP
RS-485 port

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

-
+

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	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd	ddd : 0~9999	Input
B	Y	ddd	ddd : 0~9999	Output
B	M	ddd	ddd : 0~9999	Internal Relay
B	S	ddd	ddd : 0~9999	Step Relay
B	T	ddd	ddd : 0~9999	Timer
B	C	ddd	ddd : 0~9999	Counter
W	R	ddd	ddd : 0~9999	Data Register
W	D	ddd	ddd : 0~9999	Data Register
W	RT	ddd	ddd : 0~9999	Timer Register
W	RC	ddd	ddd : 0~9999	Counter Register
DW	DRT	ddd	ddd : 0~9999	Double word Timer Register
DW	DRC	ddd	ddd : 0~9999	Double word Counter Register

Wiring diagram:

1. RS232: CPU port

MT8000 RS232

9P D-SUB Male

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

FB CPU port

15P D-SUB Male

1	RX
2	TX
6	GND
3	RTS
4	CTS

2. RS485: CPU port

MT8000

COM[RS-485] 2w

9P D-SUB Female

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

FB CPU port

15P D-SUB Male

7	D-
5	D+

3. RS232: FB-DTBR/DTBR-E

MT8000 RS232

9P D-SUB Male

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

FB-DTBR/DTBR-E

15P D-SUB Male

1	RX
2	TX
6	GND
3	RTS
4	CTS

4. RS485: FB-DTBR/DTBR-E

MT8000 RS232

9P D-SUB Male

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

FB-DTBR/DTBR-E

9P D-SUB Male

3	RX
4	TX
1	GND

5. RS485: FB-DTBR/DTBR-E

MT8000
COM[RS-485] 2w
9P D-SUB Female

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

FB-DTBR/DTBR-E
3P Terminal Block

D-
D+

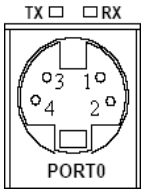
6. RS232: FBs Port0

MT8000 RS232
9P D-SUB Male

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

FB-DTBR/DTBR-E
4P Mini-Din Male

4	RX
3	TX
2	GND



4P Mini-Din
Female

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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

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	ddd	1-10000	Input relay
B	Q	ddd	1-10000	Output relay
B	M	ddd	1-10000	Auxiliary relay
B	G	ddd	1-7680	
B	T	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
B	SA	ddd	1-128	
B	SB	ddd	1-128	
B	SC	ddd	1-128	
B	S	ddd	1-128	

Wiring diagram:

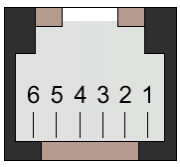
Memo：90 VersaMax series PLC of GE FANUC includes such series as 90-30, 90-70, VersaMax Micro, VersaMax Nano and VersaMax,etc., CPU of 90-30series can pass RS485 serial com port on module, utilize SNP serial communication protocol of GE to connect with EasyView MT8000HMI, In addition, CPU331/340/341/350/351/352/360/363/364 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] 9P D-SUB		**90-30/VersaMax** **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] 9P D-SUB Female		**90-30/90-70 series** **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

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

VersaMax series
RS232 port
9P SUB-D Female

3	RX
2	TX
5	GND

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

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

VersaMax series
RS232 port
9P SUB-D Female

3	RX
2	TX
5	GND

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HAN YOUNG

Temperature Controller

http://hynux.com/kor/

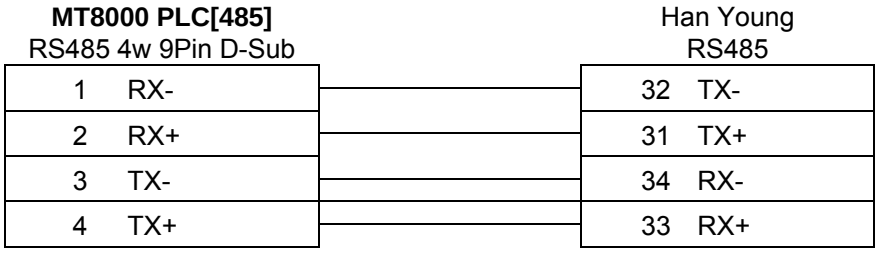
HMI Setting:

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
B	I	ddd	1-699	
W	D	ddd	1-699	

Wiring diagram:



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	

Device address:

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

Wiring diagram:

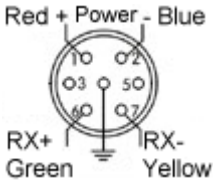
EU05 series

MT8000 PLC[485]
9P D-SUB

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

RS485 port

7 RX- (Yellow)
5 RX+ (Green)
4 GND (Black)



HITACHI H series (CPU port)

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

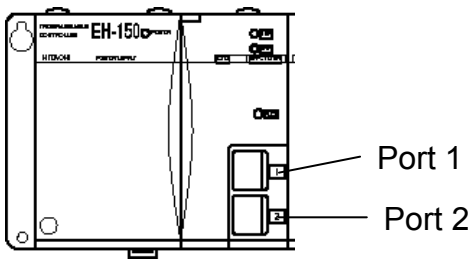
Communication mode	**19200,E,7,1(default)**
Select	

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhh(h)	hhh: 0~FFFF (h):0~F	External Input-bit(X)
B	Y	hhh(h)	hhh: 0~FFFF (h):0~F	External Output-bit(Y)
B	M	hhh(h)	hhh: 0~FFFF (h):0~F	Data area-bit(M)
B	T	hhh(h)	hhh: 0~FFFF (h):0~F	Timer(T)
B	R	hhh(h)	hhh: 0~FFFF (h):0~F	Internal Output(R)
B	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)

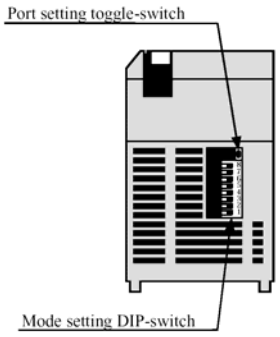
Wiring diagram:

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				
1	OFF	Normal mode		
2	OFF	TRNS0 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
	OFF	OFF	38,400 bps	
5	ON	Dedicated port		
6	6	PHL	Port2 transmission speed	



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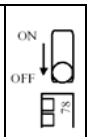
	ON	Low	9,600 bps	
	ON	High	38,400 bps	
	OFF	Low	4,800 bps	Doesn't support
	OFF	High	19,200 bps	Default
7	OFF	(System mode)		Do not turn on.
8	OFF	(System mode)		Do not turn on.

Toggle-Switch

PHL Low	
PHL High	

EH-150 port1 RS232

MT8000 RS-232

9P D-SUB

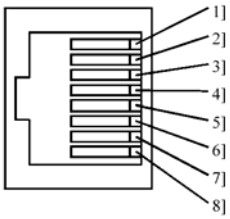
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

HITACHI EH-150

port1

8pin RJ45 Male

6 RD
5 SD
1 SG
4 PHL
7 DR



Port 1

8pin RJ45

Female

EH150port1 RS485 4wire（RS422）：

EasyView MT8000

HMI

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

Hitachi EH-150

port1

8PinRJ45port

EH150port1 RS485 2wire：

EasyView MT8000

HMI

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 EH-150 port1

8PinRJ45 port

EH-150 port2 RS232

MT8000 PLC[232]

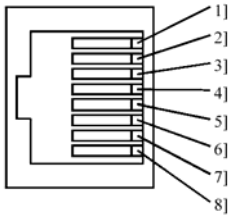
9P D-SUB Male

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

HITACHI EH-150 port2

8pin RJ45 Male

5 SD
6 RD
1 SG
7 DR
8 RS



Port 2

8pin RJ45

Female

MT8000 PLC[232]

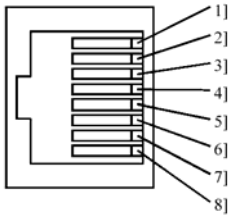
9P D-SUB Male

COM2	COM3
6 RX	8 RX
4 TX	7 TX
5 GND	5 GND

HITACHI EH-150 port2

8pin RJ45 Male

5 SD
6 RD
1 SG
4 PHL
7 DR



Port 2

8pin RJ45

Female

H series CPU RS232 port

MT8000 PLC[232]

9P D-SUB Male

COM1
3 TX
2 RX
5 GND
8 CTS

HITACHI H series CPU RS232

15p D-SUB Male

3 RXD
2 TXD
9 SG
4 RTS
10 SG
5 CTS
7 DSR
8 PHL
14 PV12

MICRO-EH port1 RS232

MT8000 RS-232

9P D-SUB

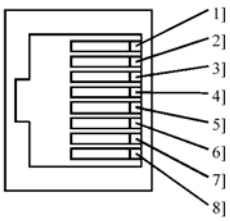
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

HITACHI EH-150

port1

8pin RJ45 Male

6 RD
5 SD
1 SG
4 PHL
7 DR



Port 1

8pin RJ45

IDEC

IDEC Micro3, Micro3C, MicroSmart, OpenNet Controller series
http://www.idec.com

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**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd(o)	ddd=0~2047, (o)=0~7	Input(I)
B	Y	ddd(o)	ddd=0~2047, (o)=0~7	Output(Q)
B	M	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)

Wiring diagram:

RS232: Micro3C, MicroSmart, OpenNet Controller CPU Ladder Port

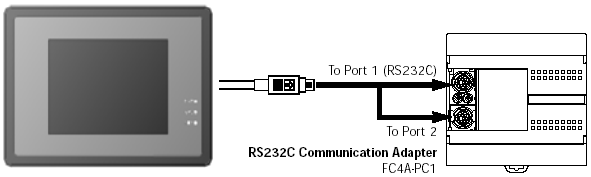
MT8000 RS232

CPU port 1 or port2 RS-232

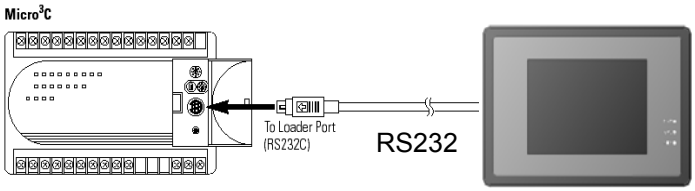
8P mini DIN Male

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

8Pin mini DIN
Female Pin



MT8000 MicroSmart



MT8000

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

MT8000 RS-485

CPU Port RS-485
8P mini DIN Male

COM1	COM3		
1 RX-	6 Data-	2	RXD-
2 RX+	9 Data+	1	RXD+
5 GND	5 GND	7	GND

8Pin mini DIN
Female Pin

RS485: Micro3C, OpenNet Controller Data Link Terminals,

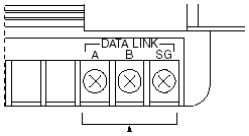
MicroSmart with FC4A-PC3 RS485 Communication Adapter

MT8000 RS-485

9P D-SUB Female

Data Link Terminals

COM1	COM3		
1 RX-	6 Data-	A	RXD-
2 RX+	9 Data+	B	RXD+
5 GND	5 GND	SG	GND



EYENCE KV series

KEYENCE KV series, KV10~80

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.	1		Must match the PLC's port setting.

PLC Setting:

Communication mode	None

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	RLY	ddd(h)0	0~19999	
B	MR	ddd(h)	0~19999	
B	LR	ddd(h)	0~19999	
B	CR	ddd(h)	0~19999	
B	DM_Bit	ddd(h)	0~19999	
W	DM	ddd	0-1999	
W	TM	ddd	0-99	
W	CM	ddd	0~65535	
W	EM	ddd	0~65535	
W	T	ddd	0-999	
W	Timer_Curr	ddd	0-999	Timer_Current
W	Timer_Preset	ddd	0-999	
W	C	ddd	0-999	
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

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

KEYENCE PLC

OP-26486

2 RXD
3 TXD
5 GND

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KEYENCE KV-1000

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

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	RLY	ddd(h)0	0~19999	
B	MR	ddd(h)	0~19999	
B	LR	ddd(h)	0~19999	
B	CR	ddd(h)	0~19999	
B	DM_Bit	ddd(h)	0~19999	
W	DM	ddd	0-1999	
W	TM	ddd	0-99	
W	CM	ddd	0~65535	
W	EM	ddd	0~65535	
W	T	ddd	0-999	
W	Timer_Curr	ddd	0-999	Timer_Current
W	Timer_Preset	ddd	0-999	
W	C	ddd	0-999	
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

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

KEYENCE PLC

OP-26486

2 RXD
3 TXD
5 GND

KOYO DirectLogic

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.

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	oooo	0 ~ 4000	Input Bits
B	Y	oooo	0 ~ 4000	Output Bits
B	C	ooooo	0 ~ 10000	Control Relays
B	T	oooo	0 ~ 1000	Timer Status Bits
B	CT	oooo	0 ~ 1000	Counter Status Bits
B	S	oooo	0 ~ 2000	
B	SP	oooo	0 ~ 2000	
B	GX	ooooo	0 ~ 10000	
B	GY	ooooo	0 ~ 10000	

W	Timer	oooo	0 ~ 1000	
W	Counter	oooo	0 ~ 1000	
W	V	oooo	0 ~ 77777	V Memory

Wiring diagram:

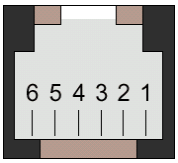
1. CPU unit: DL05/DL06/DL105/DL230/DL240/DL250/DL350/DL450 RS232 port

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

KOYO DirectLogic PLC
RS232 port
6P RJ12 phone jack

3 RX
4 TX
1 GND



RJ12 6Pin

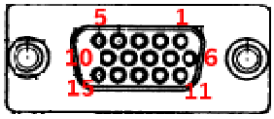
2. CPU unit: DL06/DL250 CPU Port2 RS232

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

KOYO DirectLogic PLC
CPU RS232 Port2
15P D-SUB Female

3 RX
2 TX
7 GND
4 RTC
5 CTS



15P D-SUB Female

3. CPU unit: DL06/DL250 CPU Port2 RS422

MT8000

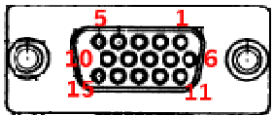
COM1 [RS-485] 4w

9P D-SUB

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

KOYO DirectLogic PLC
CPU RS422 Port2
15P D-SUB Female

10	TX-
9	TX+
7	GND
6	RX-
13	RX+
11	RTS+
14	CTS+
12	RTS-
15	CTS-



Note: DL06/DL250 CPU Port2 include RS232 and RS422

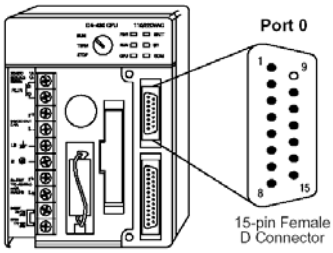
4. CPU unit: DL430/DL440/DL450 CPU unit Port0 RS232

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

KOYO DirectLogic PLC
DL405 CPU RS232 Port0
15P D-SUB Female

3	RX
2	TX
13	GND
1	YOP
7	CTS
2	YOM
4	ONLINE
14	GND



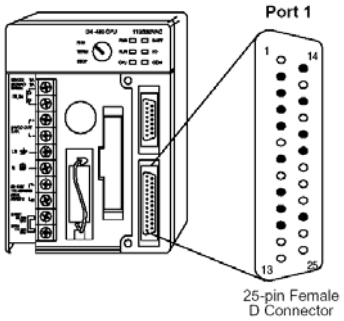
5. CPU unit: DL430/DL440/DL450 CPU unit Port1 & DL350 CPU unit Port2 RS232

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

KOYO DirectLogic PLC
DL305/405 CPU RS232 Port
25P D-SUB Female

3	RX
2	TX
7	GND
4	RTC
5	CTS



6. CPU unit: DL430/DL440/DL450 CPU unit Port1 & DL350 CPU unit Port2 RS422

MT8000

COM1[RS-485]4w

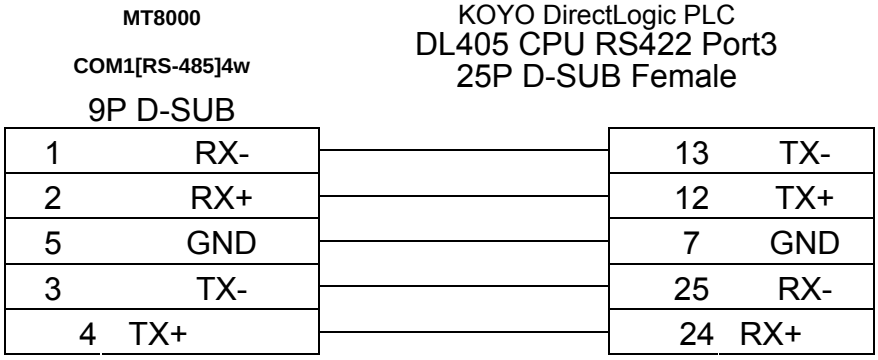
9P D-SUB

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

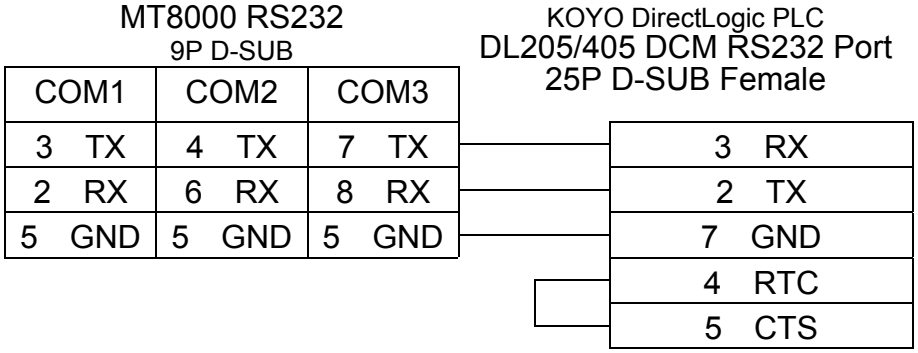
KOYO DirectLogic PLC
DL305/405 CPU RS422 Port
25P D-SUB Female

16	TX-
14	TX+
7	GND
10	RX-
9	RX+
19	RTS+
11	CTS+
18	RTS-
23	CTS-

7. CPU unit: DL450 CPU unit Port3 RS422



8. Communication unit: DL205 series D2-DCM and DL405 series D4-DCM RS232



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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:

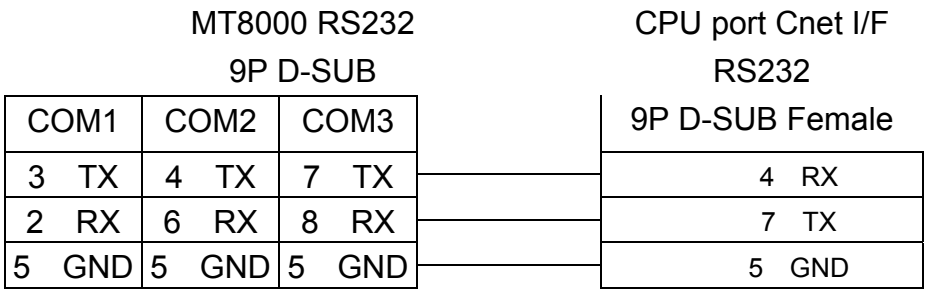
Communication mode	**38400, None, 8, 1**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~255F	I/O Relay (P)
B	K	ddd(h)	0~255F	Keep Relay (K)
B	M	ddd(h)	0~255F	Auxiliary Relay (M)
B	L	ddd(h)	0~255F	Link Relay (L)
B	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:



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

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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:

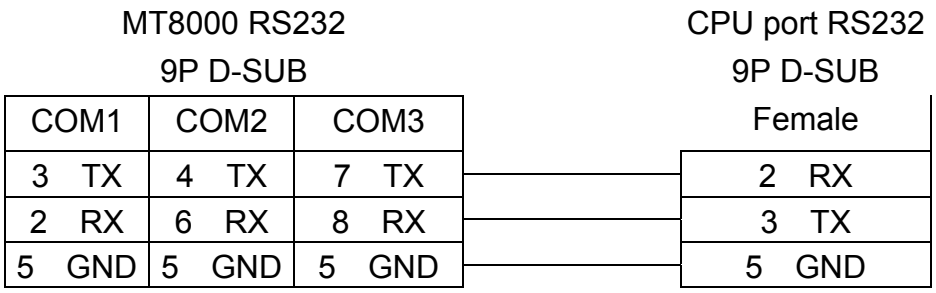
Communication mode	**38400, None, 8, 1**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~255F	I/O Relay (P)
B	K	ddd(h)	0~255F	Keep Relay (K)
B	M	ddd(h)	0~255F	Auxiliary Relay (M)
B	L	ddd(h)	0~255F	Link Relay (L)
B	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
9P D-SUB
COM1
COM2
COM3
3 TX
4 TX
7 TX
2 RX
6 RX
8 RX
5 GND
5 GND
5 GND
CPU port RS232
9P D-SUB
Female
2 RX
3 TX
5 GND

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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.

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~127F	I/O device_2,048 points
B	M	ddd(h)	0~255F	Internal device_4,096 points
B	L	dddd(h)	0~1279F	Communication device_20,480 points
B	K	dddd(h)	0~2559F	Preservation device_4,096 points
B	F	ddd(h)	0~255F	Special device_4,096 point
B	T	ddd	0~255	Timer device_256 point
B	C	ddd	0~255	Counter device_256 point
B	S	ddd(dd)	0~127(99)	Relay for step control
B	D_Bit	dddd(h)	0~5120F	Data register_Bit expression (D0000.0)
W	D	dddd	0~5119	Data register_5120 words
W	U	d(dd)	0~7(0~31)	Analog data register_256 words
W	N	dddd	0~3935	Communication data register_3,936 words
W	Z	ddd	0~127	Index register_128 words
W	T	ddd	0~255	Timer current value register_256 words
W	C	ddd	0~255	Counter current value register_256 words

d:Decimal h:Hexadecimal

Wiring diagram:

RS-232:

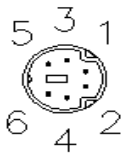
MT8000 RS232
9P D-SUB

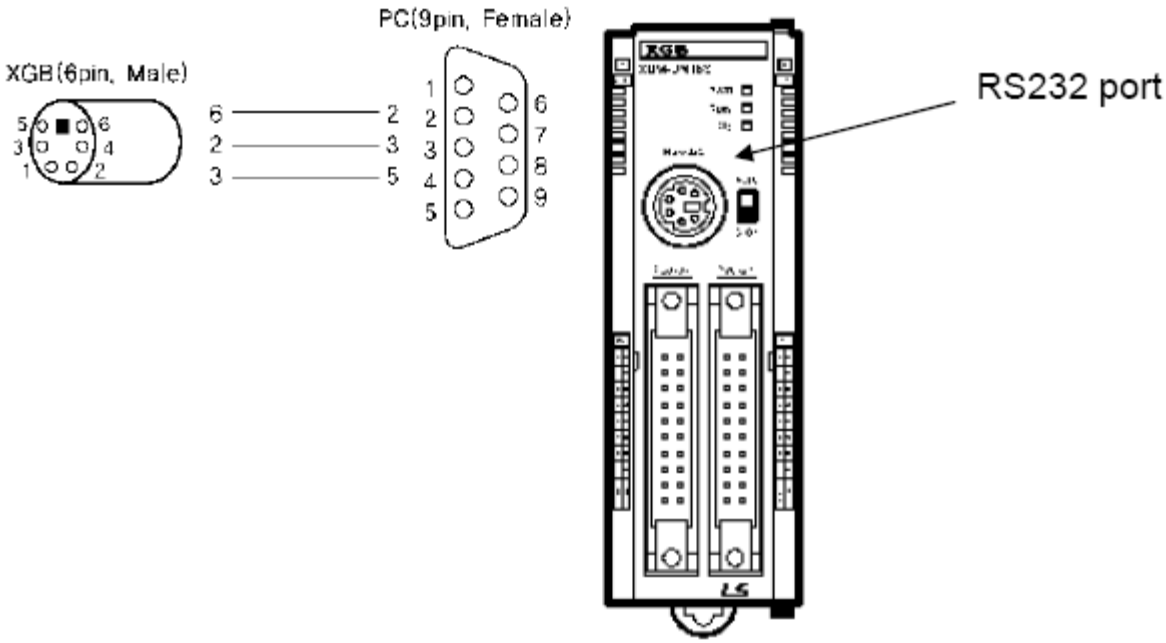
COM1	COM2	COM3
3 TX	4 TX	7 TX
2 RX	6 RX	8 RX
5 GND	5 GND	5 GND

XGB main unit
RS232 6pin

2	RXD
6	TXD
3	GND

6pin female
pinout





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LS XGB/XGT TCP/IP Series

LS XGB/XGT TCP/IP Series

http://www.lgis.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	XBL-EMTA		
Com port	Ethernet		
PLC Station no.	0	0~255	
TCP/IP port	2004		

PLC Setting:

Communication mode	Fenet Potocol

Device address:

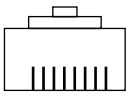
Bit/Word	Device Type	Format	Range	Memo
B	P	ddd(h)	0~127F	I/O device_2,048 points
B	M	ddd(h)	0~255F	Internal device_4,096 points
B	L	dddd(h)	0~1279F	Communication device_20,480 points
B	K	dddd(h)	0~2559F	Preservation device_4,096 points
B	F	ddd(h)	0~255F	Special device_4,096 point
B	T	ddd	0~255	Timer device_256 point
B	C	ddd	0~255	Counter device_256 point
B	S	ddd(dd)	0~127(99)	Relay for step control
B	D_Bit	dddd(h)	0~5120F	Data register_Bit expression (D0000.0)
W	D	dddd	0~5119	Data register_5120 words
W	U	d(dd)	0~7(0~31)	Analog data register_256 words
W	N	dddd	0~3935	Communication data register_3,936 words
W	Z	ddd	0~127	Index register_128 words
W	T	ddd	0~255	Timer current value register_256 words
W	C	ddd	0~255	Counter current value register_256 words

d:(Decimal) h:(Hexadecimal)

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-



1 8

RJ45

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color		TCP Device 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-

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**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input relay
B	Y	ooo	0-377	Output relay
B	M	ddd	0-9999	Internal bit memory
B	T	ddd	0-255	Timer bit memory
B	C	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 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

LIYAN Ex series
CPU RS232 Port
8P miniDin Female

4	RXD
7	TXD
8	GND

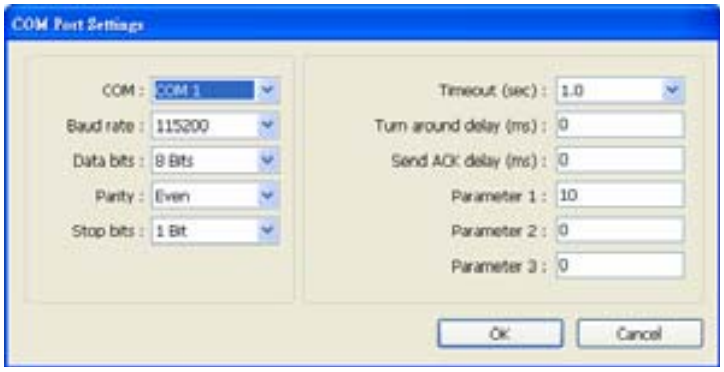
8Pin miniDin
Female

Master (Master-Slave Protocol)

MT500 series

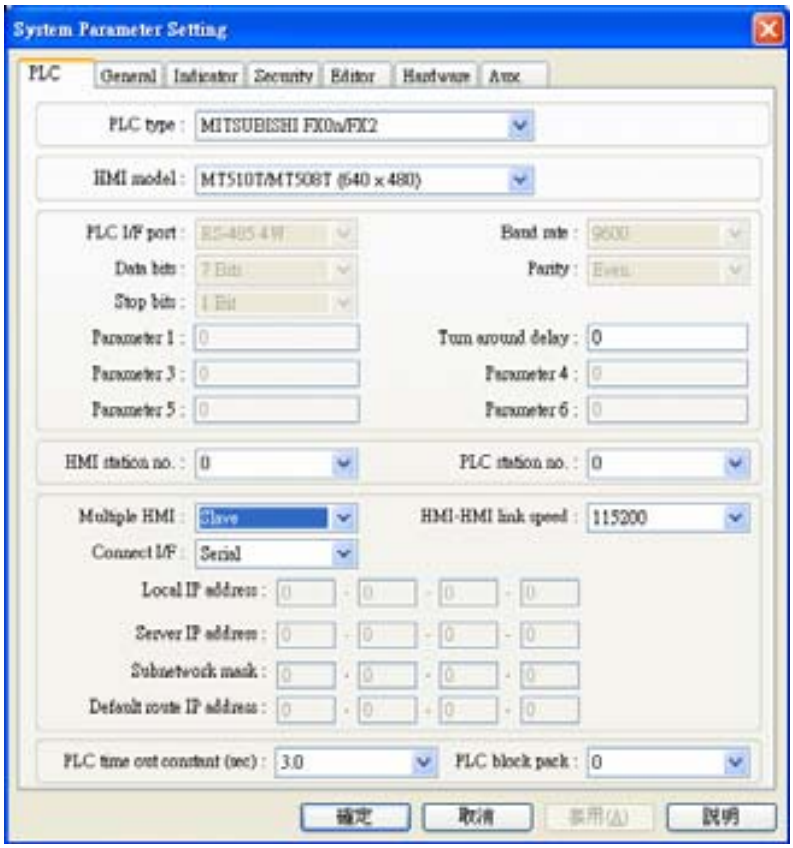
HMI Setting:

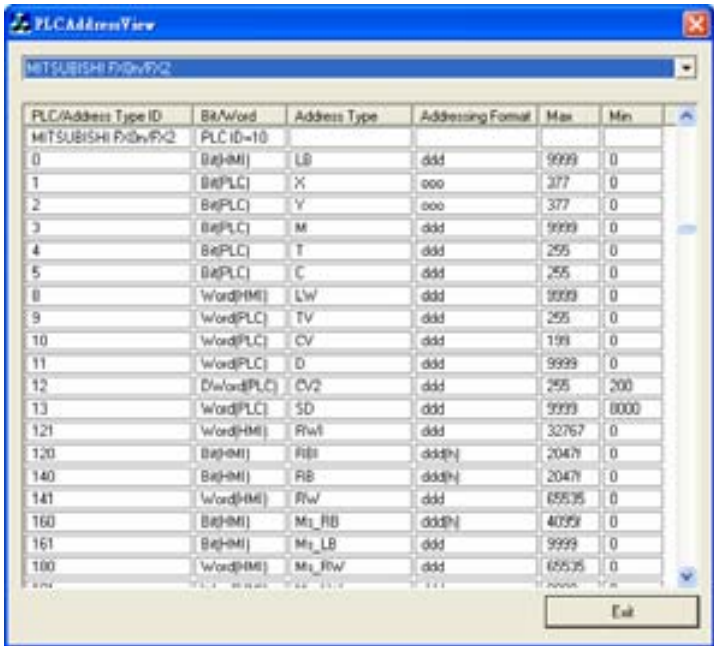
Parameters	Recommend	Option	Notes
PLC type	Master (Master-Slave Protocol)		
Com port	RS232		
Baud rate	115200	38400, 115200	
Parity bit	Even		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No. Parameter 1	0 MT500 PLC ID	Use PLCAddressView.exe find PLC ID.	



PLC Setting:

Communication mode	MT500 Multiple HMI set Slave





Device address:

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

Memobus (YASKAWA MP Series controllers)

YASKAWA MP2200, MP2300, MP9xx communication module

http://www.yaskawa.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Memobus		
Com port	RS485	RS232/RS485 2w,4w	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.

PLC Setting:

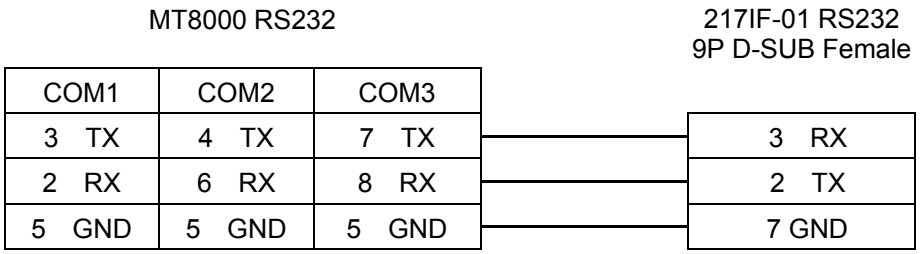
Communication mode	MEMOBUS, Slave, RTU
Select	

Device address:

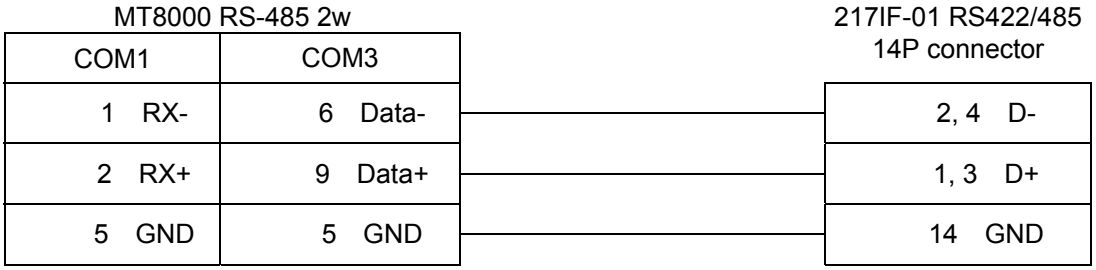
Bit/Word	Device Type	Format	Range	Memo
B	MB_1	ddddh	dddd:0~9999, h: 0~f	MB 0~9999
B	MB_2	ddddh	dddd:10000~65535, h: 0~f	MB 10000~65535
B	IB	hhhh	hhhh : 0~A7FF	Read only
W	IW	hhhh	hhhh : 0~A7FF	Read only
DW	IL	hhhh	hhhh : 0~A7FE	Read only
F	IF	hhhh	hhhh : 0~A7FE	Read only
W	MW	ddddd	ddddd:0~65534	Holding Register
DW	ML	ddddd	ddddd:0~65533	Double word
F	MF	ddddd	ddddd:0~65533	Floating point

Wiring diagram:

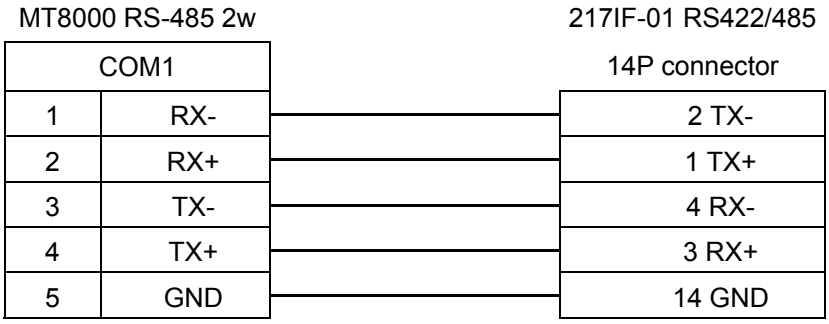
1. RS-232: 217IF-01, 218IF-01



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



3. RS485 4w: 217IF-01



Mitsubishi AJ71

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

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI AJ71	MITSUBISHI AJ71(AnA/AnU CPU) MITSUBISHI AJ71[format4] pds driver	
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
B	X	hhh	hhh: 0~270F (hex-decimal)	Input Bits
B	Y	hhh	hhh: 0~270F (hex-decimal)	Output Bits
B	M	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:

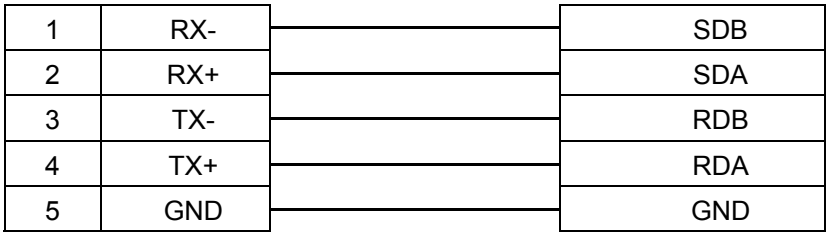
MT800 Com1

RS-485]

AJ71C24

RS-422

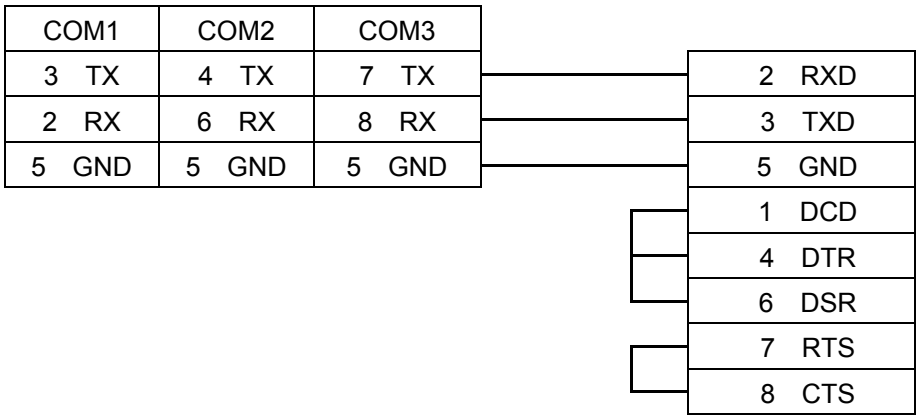
9P D-SUB



RS-232: A1SJ71UC24-R2

MT8000 RS232
9P D-SUB

RS232 port
9P D-SUB Female



Mitsubishi FX0n/FX2

Mitsubishi FX0s/FX0n/FX1s/FX1n/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	9600/19200/38400/57600/115200	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	0-255	Does not apply to this protocol
PLC Station No.	0	0-255	must same as the PLC setting

PLC Setting:

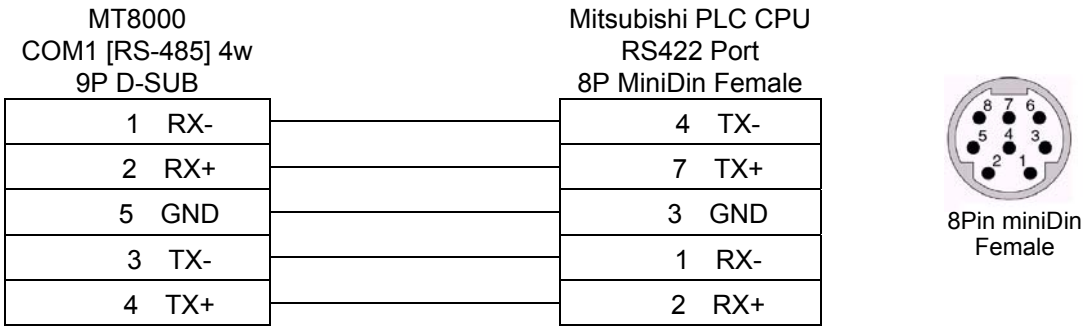
Communication mode	9600,Even,7,1

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input Relay
B	Y	ooo	0-377	Output Relay
B	M	ddd	0-9999	Auxiliary Relay
B	T	ddd	0-255	Timer Relay
B	C	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

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

Wiring diagram:



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Mitsubishi FX2n

Mitsubishi 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	9600/19200/38400/57600/115200	
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:

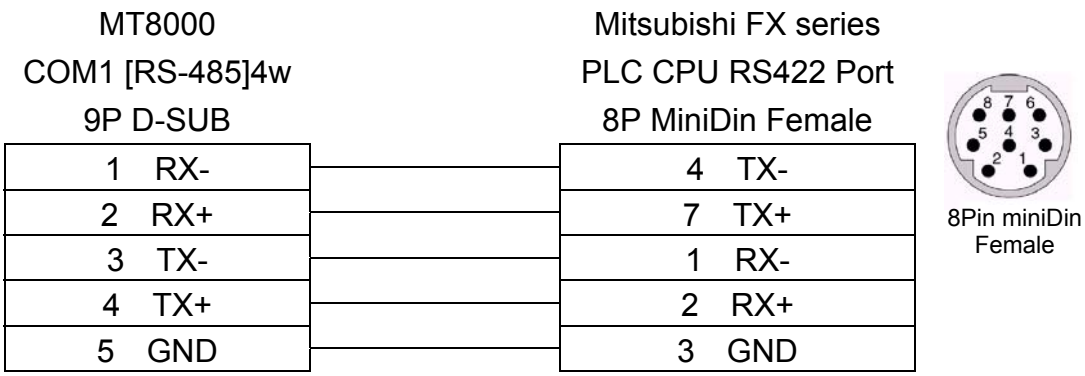
Communication mode	9600,Even,7,1

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input Relay
B	Y	ooo	0-377	Output Relay
B	M	dddd	0-7999	Auxiliary Relay
B	T	ddd	0-255	Timer Relay
B	C	ddd	0-255	Counter Relay
B	SM	dddd	8000-9999	Special Auxiliary Relay
B	D_Bit	dddd(dd)	0~7999(0~15)	Data Register Bit (D)
B	S	dddd	0~4095	State Relay (S)
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-199	Counter Memory

Bit/Word	Device Type	Format	Range	Memo
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:



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Mitsubishi FX3U

Mitsubishi FX3U/FX3UC

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	Extend address mode	NO

PLC Setting:

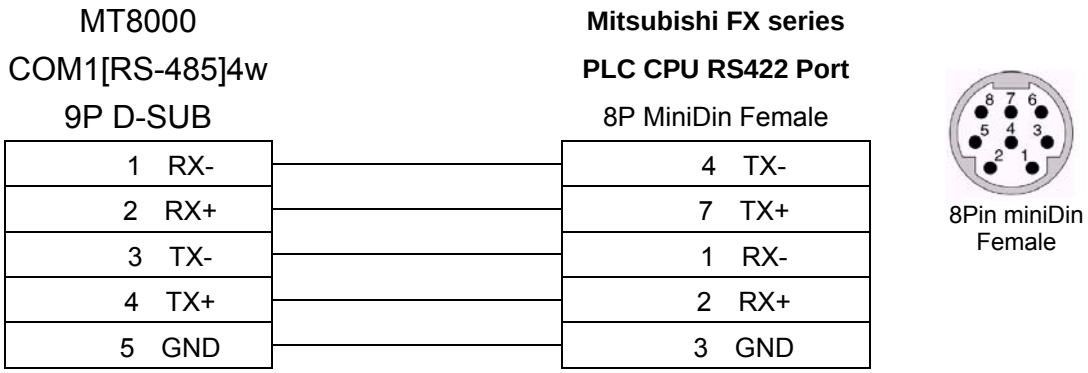
Communication mode	9600,Even,7,1

Device address:

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

Bit/Word	Device Type	Format	Range	Memo
W	SD	dddd	8000~9999	Special Data Register (D)
W	R	ddddd	0~32767	Extended Register (R)

Wiring diagram:



8Pin miniDin Female

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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:

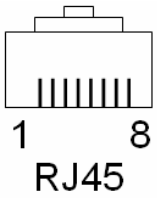
Bit/Word	Device type	Format	Range	Memo
B	X	ooo	0 ~ 377	Input
B	Y	ooo	0 ~ 377	Output Relay
B	M	dddd	0 ~ 7679	Internal Relay
B	S	dddd	0 ~ 4095	Step Relays
B	T	ddd	0 ~ 511	Timer Contacts
B	C	ddd	0 ~ 255	Counter Contacts
B	SM	dddd	8000 ~ 8511	Special Int. Relays
B	D_Bit	dddd(dd)	0-799915	Data Register Bit 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:

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-



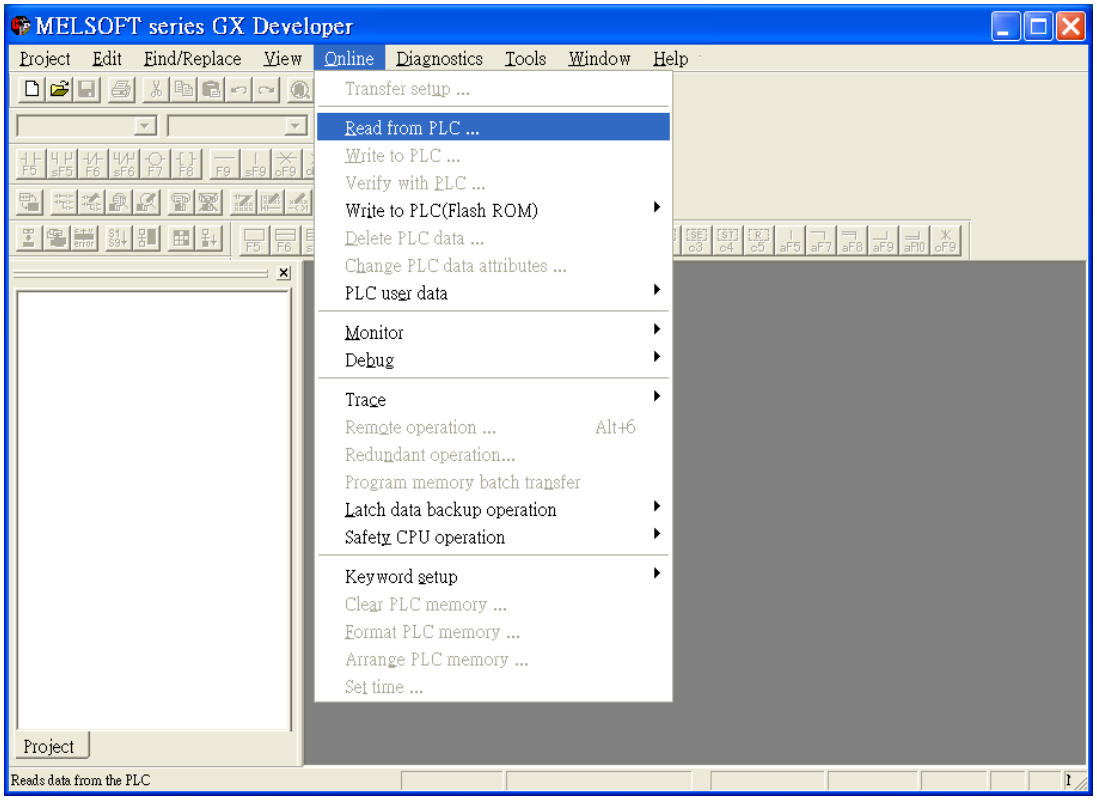
Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	Modbus TCP Device 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.

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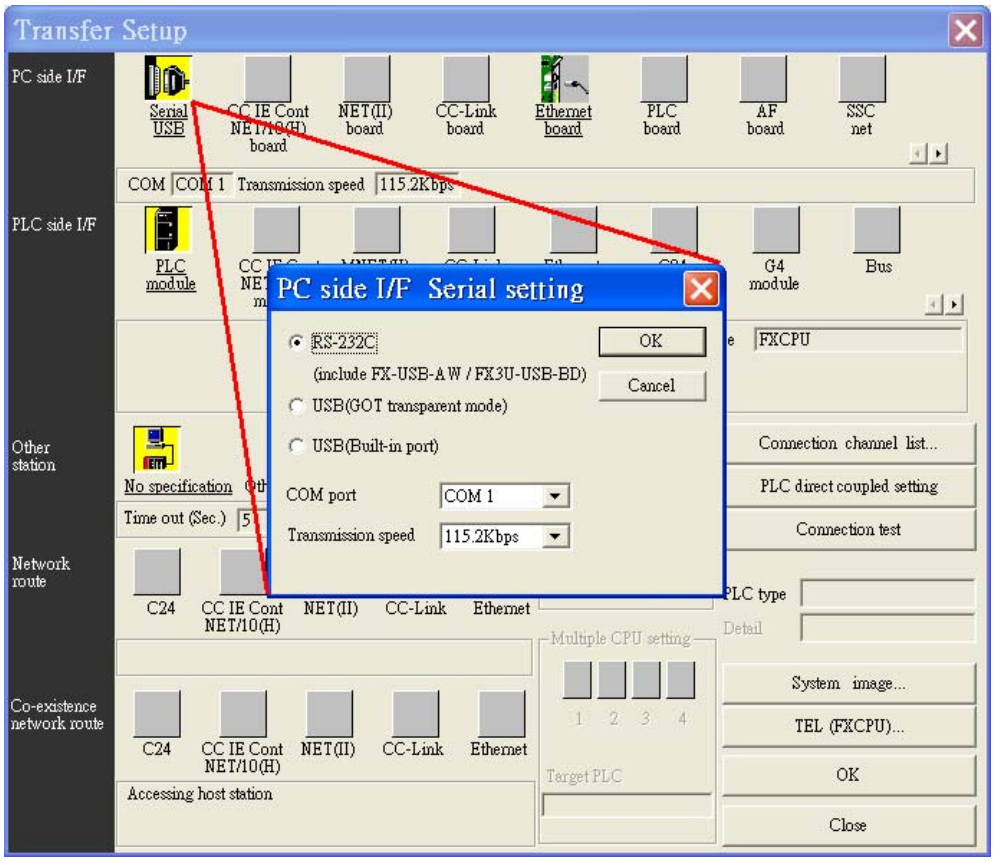
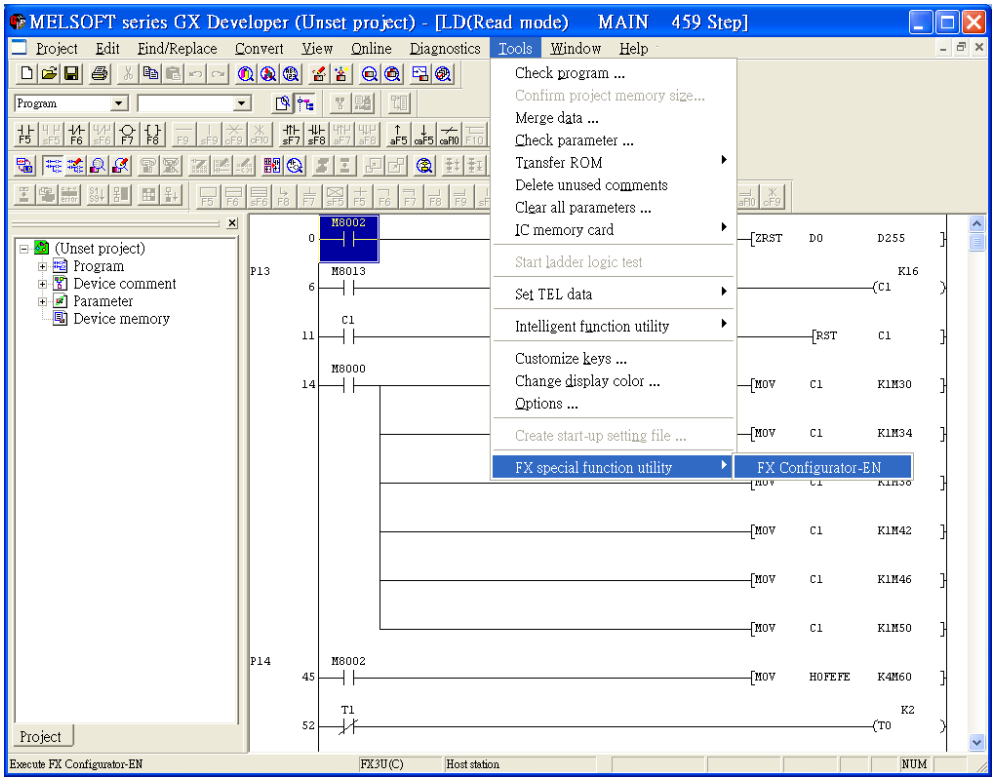


4. After finishing the PLC settings, select Tools/FX special function utility/FX Configurator-EN



5. Select “Module 0” in Ethernet Module settings.

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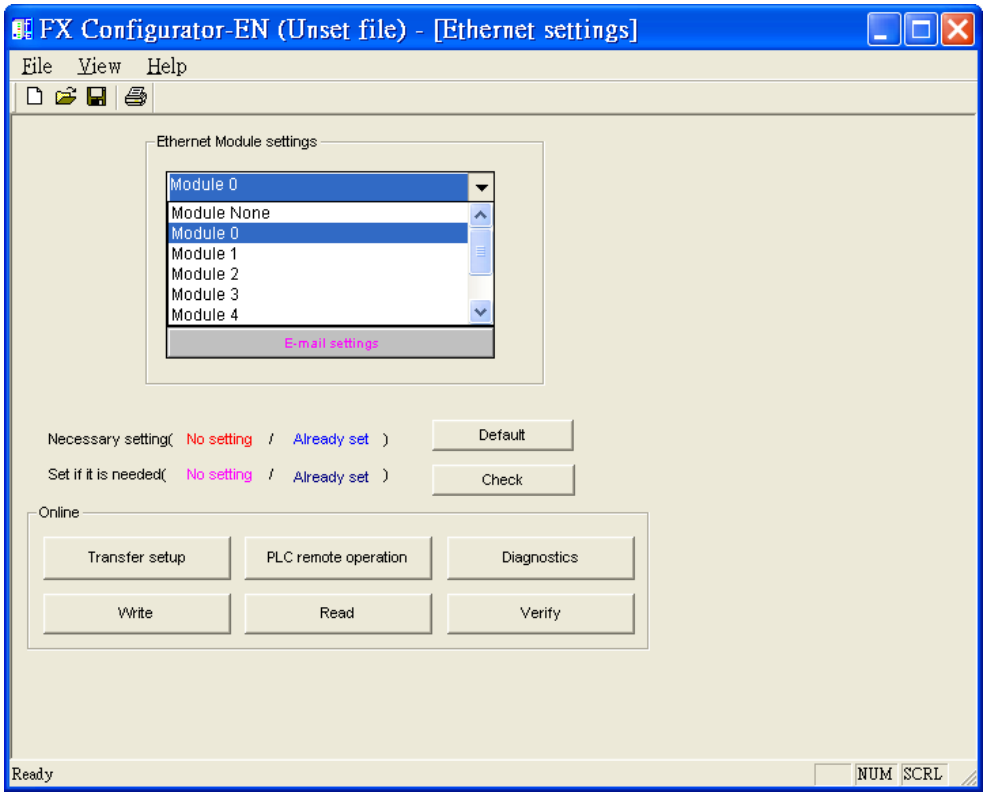
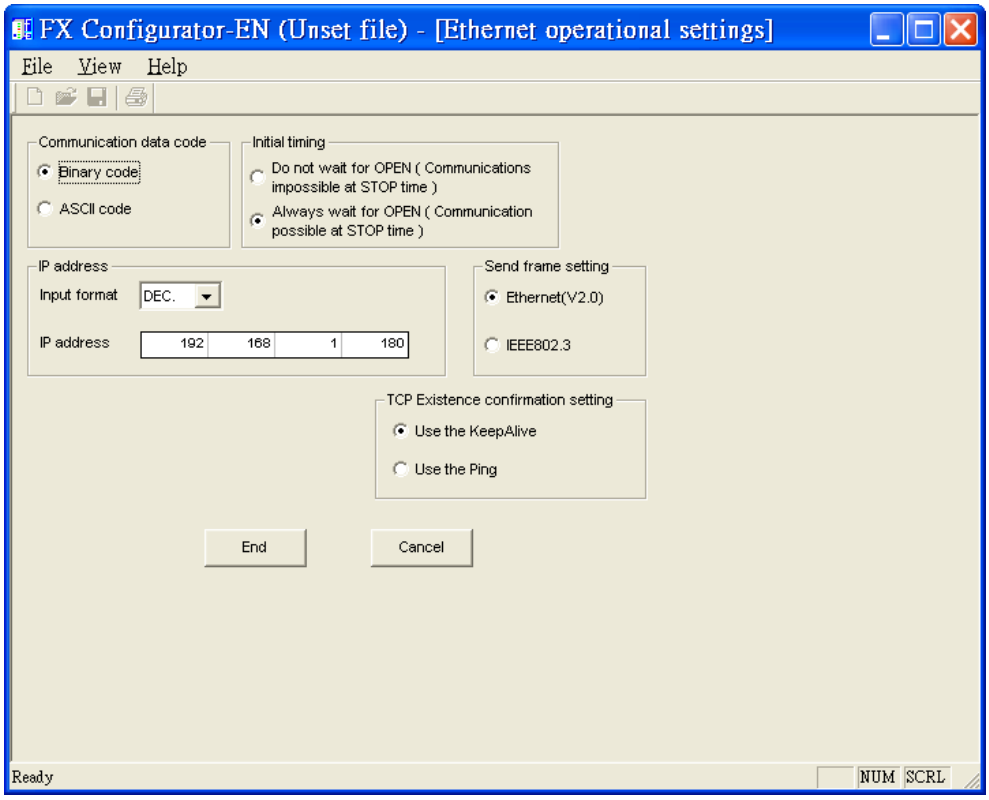
(If more than one module, please setting modules step by step)



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



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

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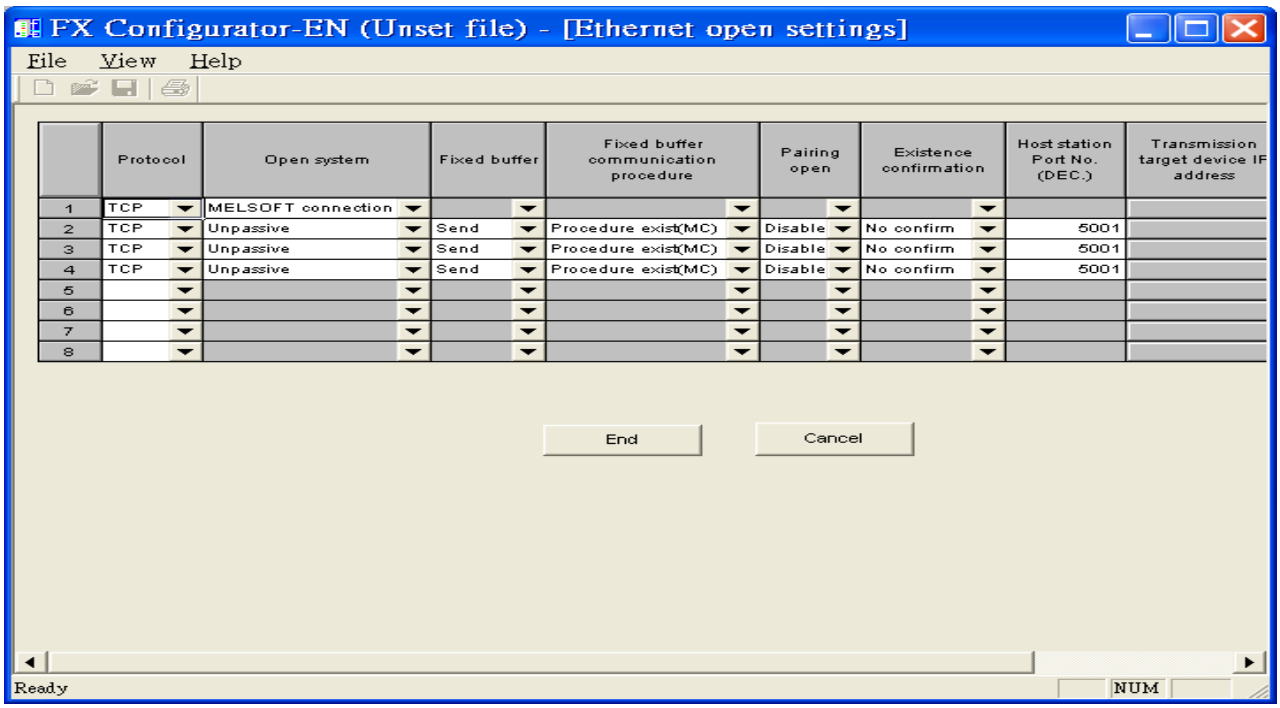
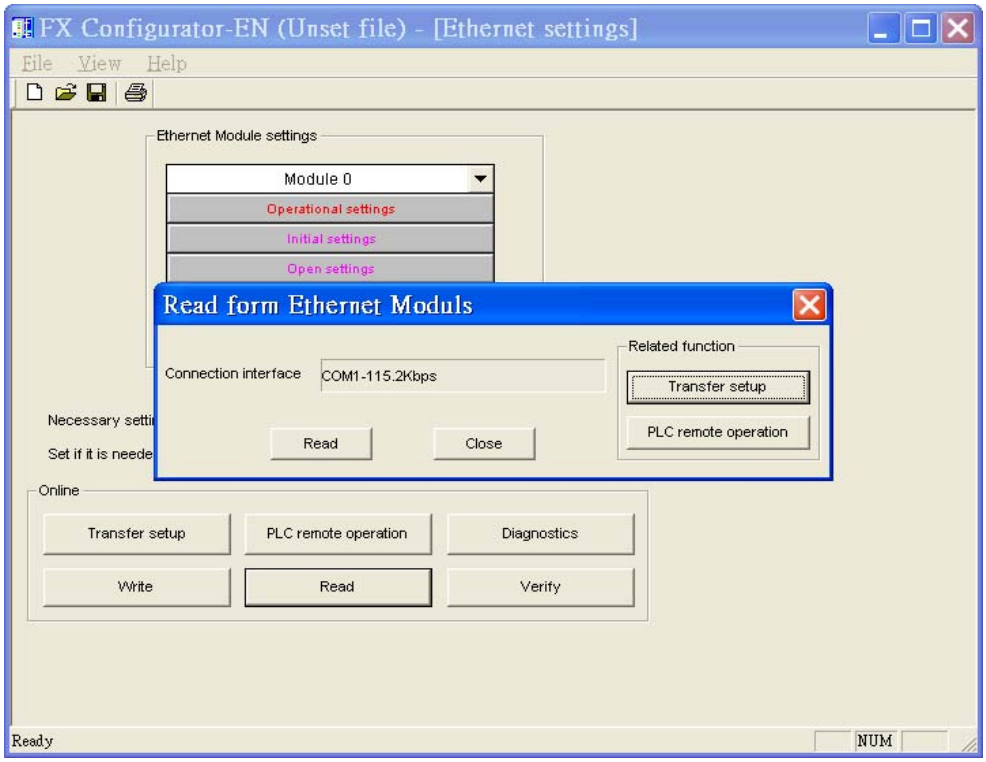
1	TCP	MELSOFT connection					
2	TCP	Unpassive	Send	Procedure exist(MC)	Disable	No confirm	5001
3	TCP	Unpassive	Send	Procedure exist(MC)	Disable	No confirm	5001
4	TCP	Unpassive	Send	Procedure exist(MC)	Disable	No confirm	5001

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



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



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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:

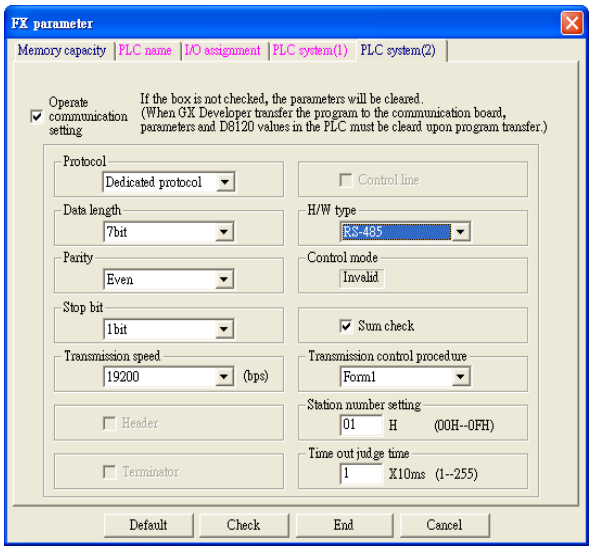
Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI FX232/485BD		
Com port	RS232/RS485	RS232/RS485 2w/4w	in accordance with the BD module
Baud rate	19200	9600/19200	must same as the PLC setting
Parity bit	Even	Even, Odd, None	must same as the PLC setting
Data Bits	7	7,8	must same as the PLC setting
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

Online Simulator	YES	Extend address mode	YES
Broadcast command			

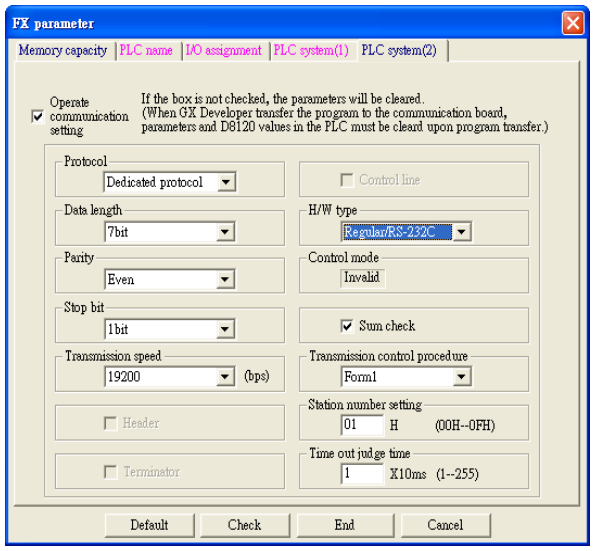
PLC Setting:

Communication mode	Must set PLC station when use the BD Module

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



FX2N-485-BD, FX1N-485-BD



FX2N-232-BD, FX1N-232-BD

Device address:

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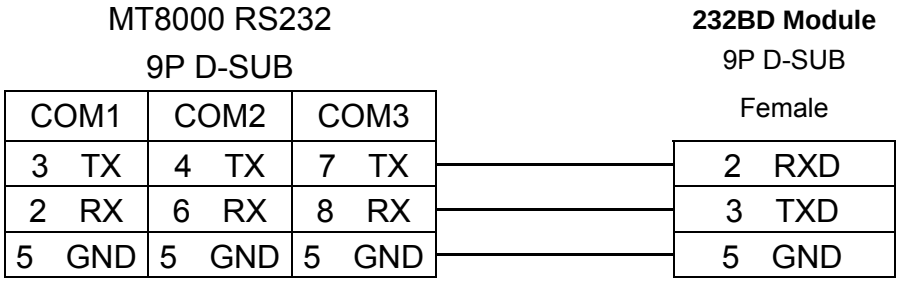
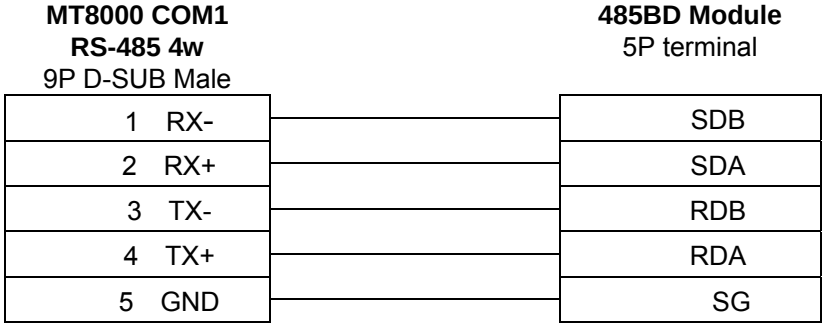
Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0-377	Input Relay
B	Y	ooo	0-377	Output Relay
B	M	ddd	0-9999	Auxiliary Relay
B	T	ddd	0-255	Timer Relay
B	C	ddd	0-255	Counter Relay
W	TV	ddd	0-255	Timer Memory
W	CV	ddd	0-199	Counter Memory
W	D	ddd	0-9999	Data Register
W	CV2	ddd	200-255	Counter Memory(D Word)

Wiring diagram:

Communication Module RS232BD:



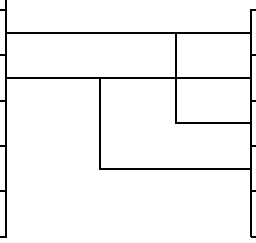
Communication Module RS485BD:



Communication Module RS485BD:

MT8000 RS-485 2Wire
9P D-SUB

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



RS485BD Module
5P terminal

SDB
SDA
RDB
RDA
SG

MITSUBISHI Q02H

Mitsubishi 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:

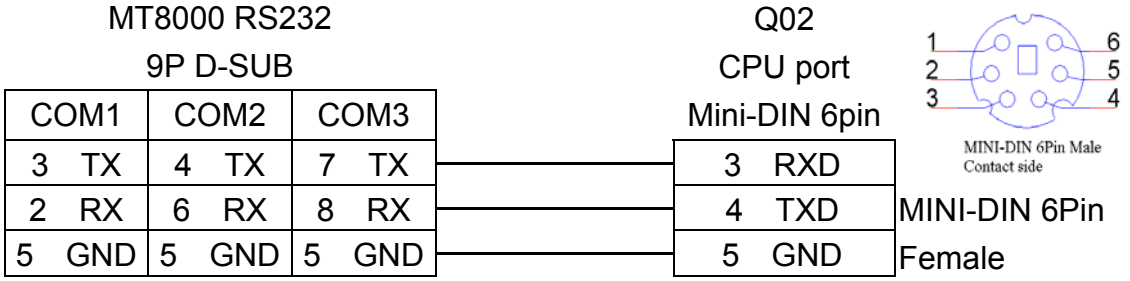
Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact
B	SC	ddd	0~2047	Retentive Timer Coil
B	CS	ddd	0~1023	Counter Contact
B	CC	ddd	0~1023	Counter Coil
B	SB	hhh	0~7FF	Special Link Relay
B	S	dddd	0~8191	Step Relay
B	DX	hhh	0~1FFF	Direct Input

Bit/Word	Device Type	Format	Range	Memo
B	DY	hhh	0~1FFF	Direct Output
B	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:



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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
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact
B	SC	ddd	0~2047	Retentive Timer Coil
B	CS	ddd	0~1023	Counter Contact
B	CC	ddd	0~1023	Counter Coil
B	SB	hhh	0~7FF	Special Link Relay

Bit/Word	Device Type	Format	Range	Memo
B	S	dddd	0~8191	Step Relay
B	DX	hhh	0~1FFF	Direct Input
B	DY	hhh	0~1FFF	Direct Output
B	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:

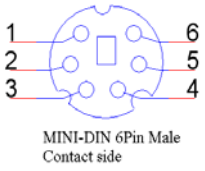
RS-232:

MT8000 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

Q06
CPU port
Mini-DIN 6pin

3	RXD
4	TXD
5	GND



MINI-DIN 6Pin
Female

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MITSUBISHI QJ71

Mitsubishi Q series PLC with QJ71C24 communication module, Q00, Q01 CPU port.
http://www.mitsubishi-automation.com

HMI Setting:

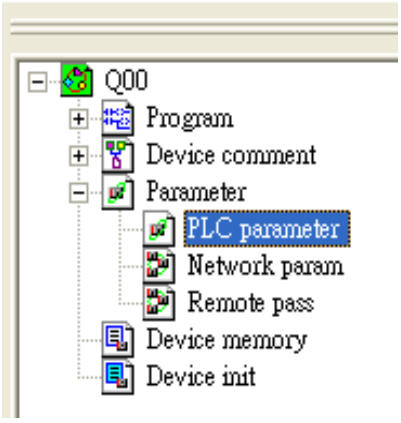
Parameters	Recommend	Option	Notes
PLC type	MITSUBISHI Melsec_QJ71		
Com port	RS232	RS485 4W, RS232	
Baud rate	9600		
Parity bit	Odd		
Data Bits	8		
Stop Bits	1		
HMI Station No.	0		
PLC Station No.	0		

Online Simulator	YES
Extend address mode	NO

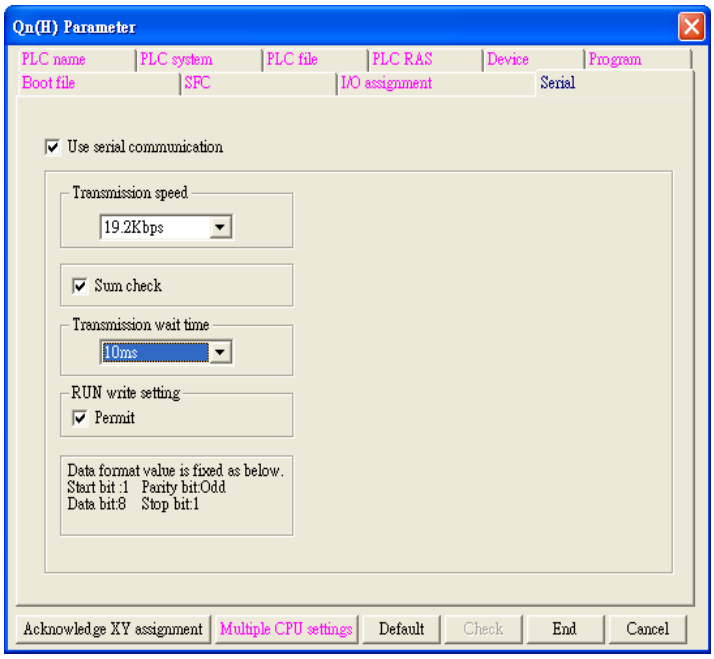
PLC Setting:

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.



Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	hhh	0~1FFF	Input Relay
B	Y	hhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhh	0~1FFF	Link Relay
B	TC	ddd	0~2047	Timer Coil
B	SS	ddd	0~2047	Retentive Timer Contact
B	SC	ddd	0~2047	Retentive Timer Coil
B	CS	ddd	0~1023	Counter Contact
B	CC	ddd	0~1023	Counter Coil
B	SB	hhh	0~7FF	Special Link Relay
B	S	dddd	0~8191	Step Relay
B	DX	hhh	0~1FFF	Direct Input
B	DY	hhh	0~1FFF	Direct Output
B	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
RS-485 4w
9P D-SUB Male

QJ71C24 CH.2
RS-422

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

RS-232:

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

QJ71C24 CH.1
RS232 port
9P D-SUB Male

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

Q00, Q01 CPU port RS-232:

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

Q00, Q01
CPU port
Mini-DIN 6pin

3	RXD
4	TXD
5	GND

MINI-DIN 6Pin

Female

MITSUBISHI QJ71E71

Mitsubishi Q type, 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		

Device address:

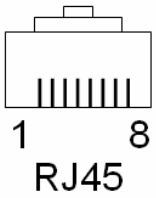
Bit/Word	Device Type	Format	Range	Memo
B	X	hhhh	0~1FFF	Input Relay
B	Y	hhhh	0~1FFF	Output Relay
B	M	dddd	0~8191	Internal Relay
B	L	dddd	0~8191	Latch Relay
B	F	dddd	0~2047	Annunciator
B	V	dddd	0~2047	Edge Relay
B	B	hhhh	0~1FFF	Link Relay
B	SB	hhhh	0~2047	Special Link Relay
B	DX	hhhh	0~1FFF	Direct Input
B	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 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-

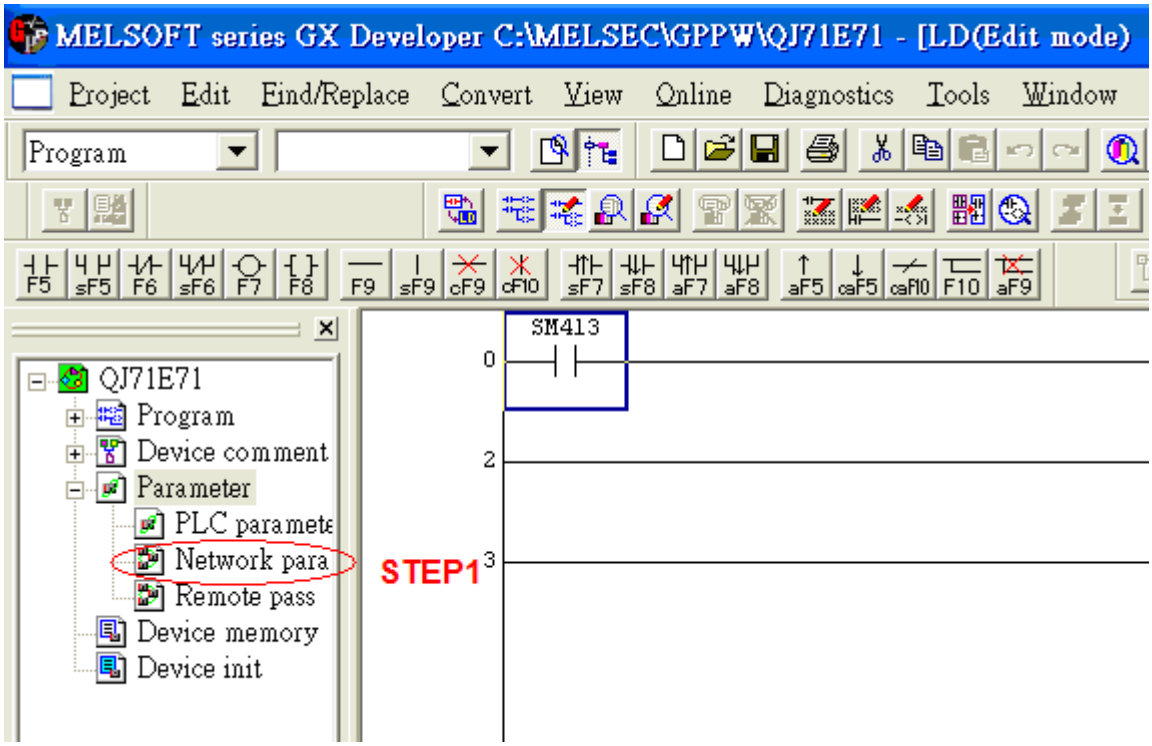


Ethernet: Direct connect (crossover cable)

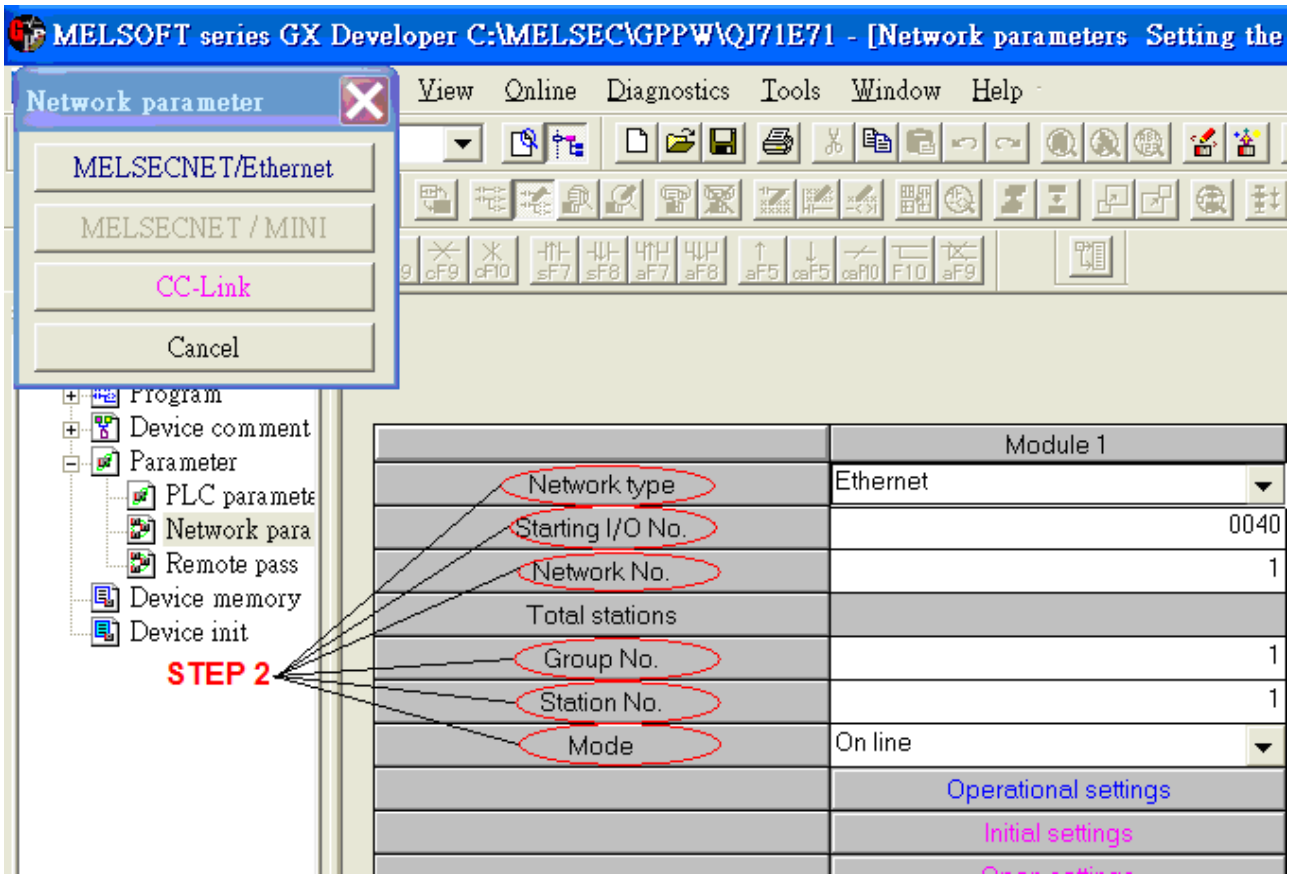
MT8000 Ethernet RJ45		Wire color		Modbus TCP Device RJ45	
1	TX+	White/Orange	———	3	RX+
2	TX-	Orange	———	6	RX-
3	RX+	White/Green	———	1	TX+
4	BD4+	Blue	———	4	BD4+
5	BD4-	White/Blue	———	5	BD4-
6	RX-	Green	———	2	TX-
7	BD3+	White/Brown	———	7	BD3+
8	BD3-	Brown	———	8	BD3-

QJ71E71-100 Ethernet module settings:

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



2. Click Operational setting to set IP information.



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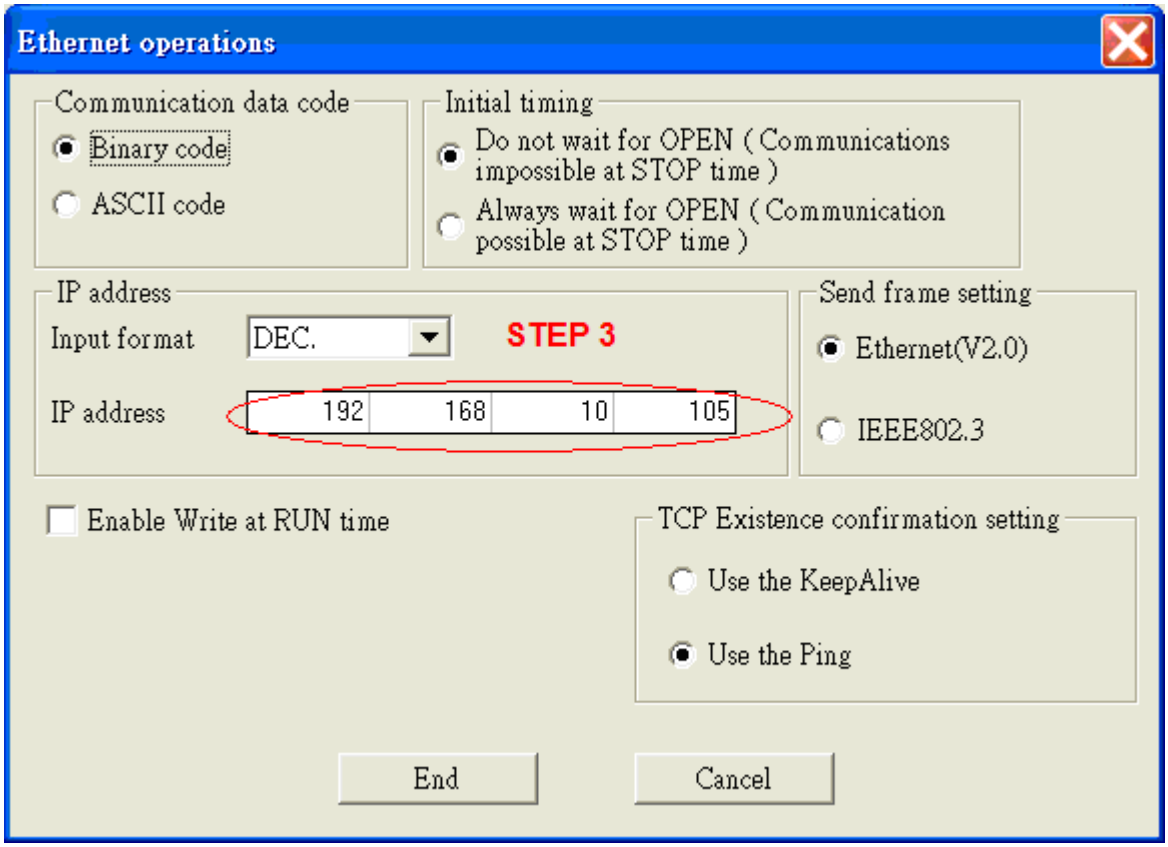
	Module 1	Module 2
Network type	Ethernet	None
Starting I/O No.	0040	
Network No.	1	
Total stations		
Group No.	1	
Station No.	1	
Mode	On line	
	Operational settings	
	Initial settings	
	Open settings	
	Router relay parameter	
	Station No.<->IP information	
	FTP Parameters	
	E-mail settings	
	Interrupt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

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



4. Press END to finish settings.

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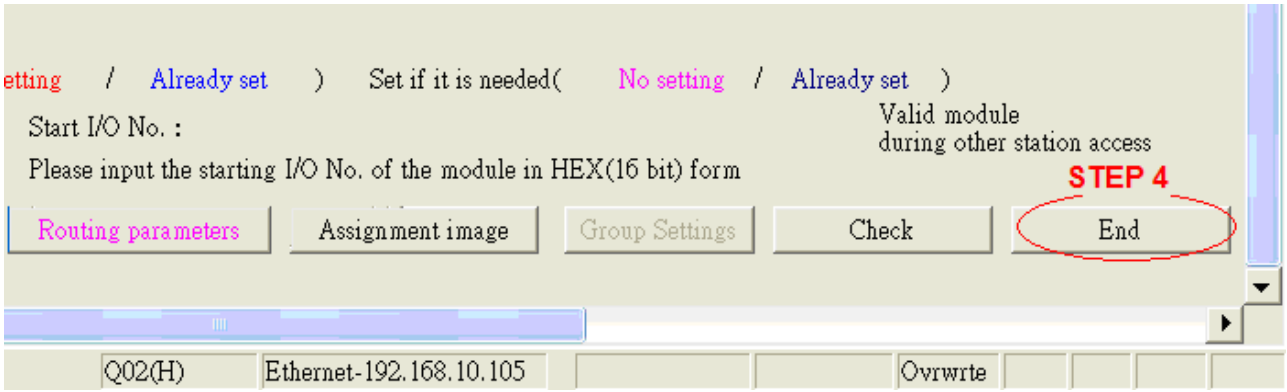
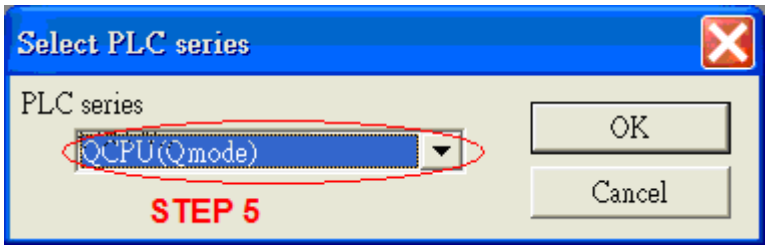
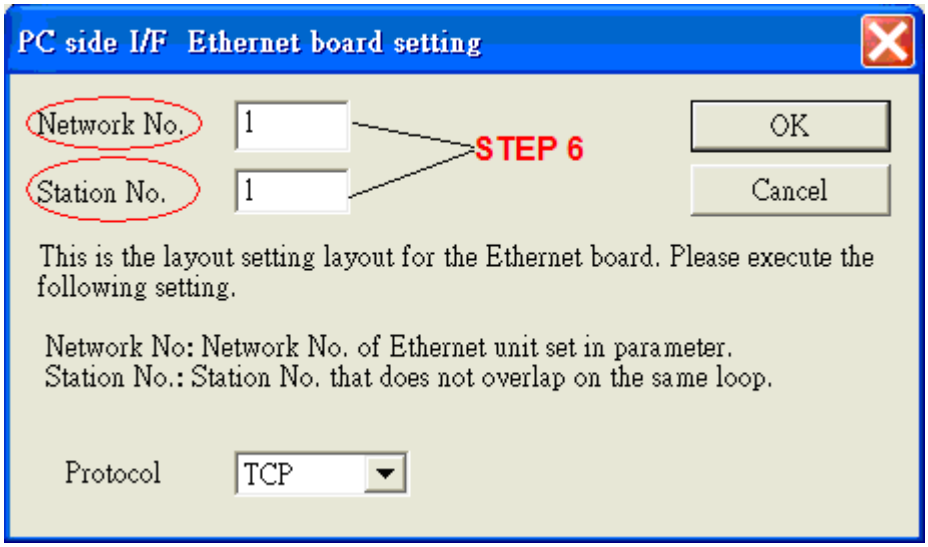


5. Restart PLC software and select [READ FROM PLC], click QCPU(Qmode) and press OK.



6. 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)



7. Select “Ethernet module” in PLC Side I/F to set QJ71E71’s IP address.(IP address = Network Parameter’s IP address)

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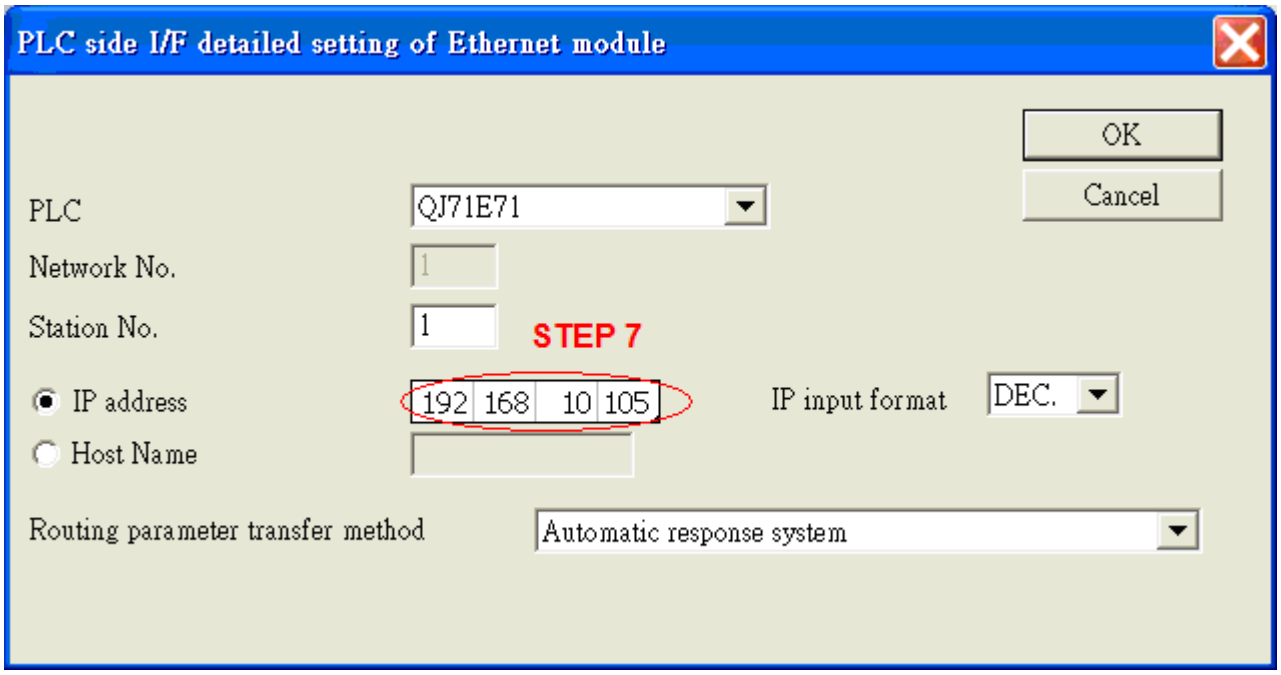
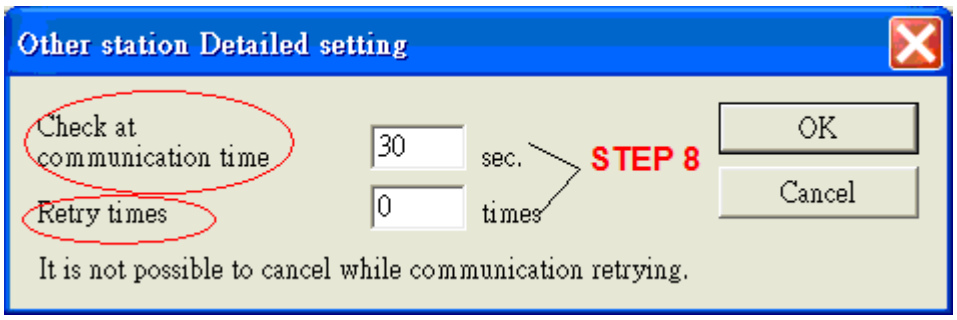


8. In “Other station”, click “Other station(Single network)” setting “Check at communication time” and “Retry times”.



After finishing settings as above, click “Connection test” for testing the communication and sending the PLC’s program.

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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
B	0x	ddddd	1-65535	Output bit
B	1x	ddddd	1-65535	Input bit (read only)
B	3x_Bit	ddddd(dd)	100-6553515	Input Register bit (read only)
B	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

Modbus RTU function code:

0x 0x01 Read coil 0x05 write single coil

1x 0x02 Read discrete input N/A for write operation

3x 0x04 Read input register N/A for write operation

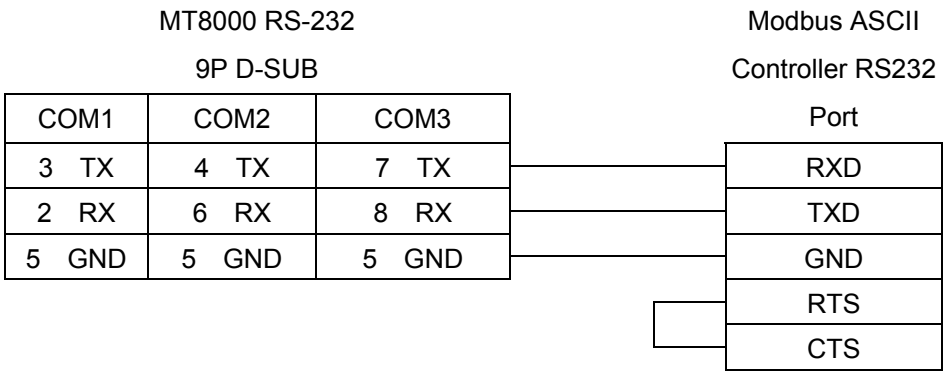
4x 0x03 Read holding register 0x10 write multiple register

3xbit is equivalent to 3x

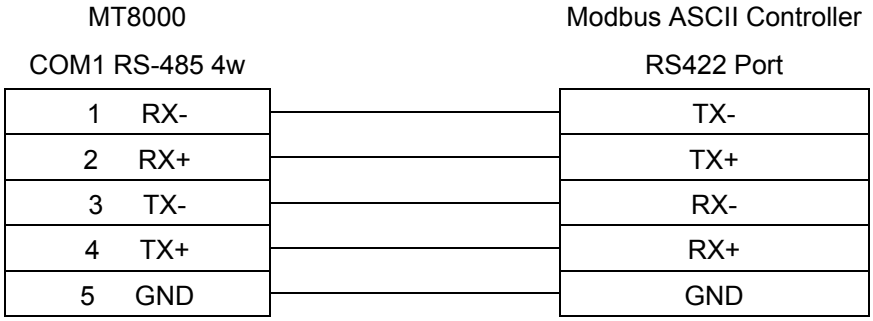
4xbit is equivalent to 4x

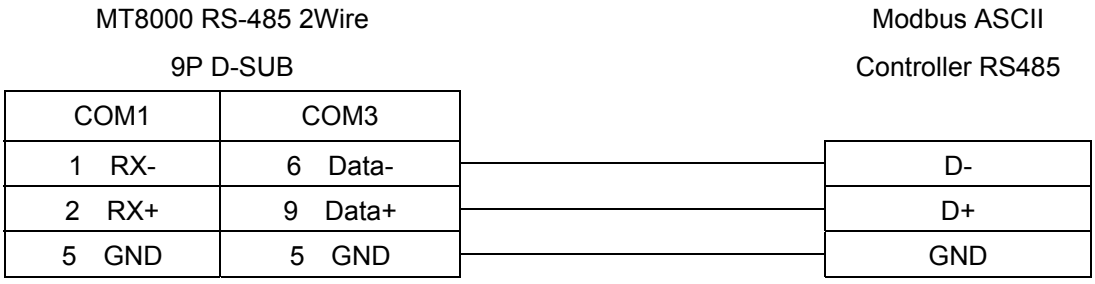
Wiring diagram:

MODBUS RS232 PORT



MODBUS RS422/485 PORT





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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

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	0x	ddddd	1-65535	Output bit
B	1x	ddddd	1-65535	Input bit (read only)
B	3x_Bit	ddddd(dd)	100-6553515	Input Register bit (read only)
B	4x_Bit	ddddd(dd)	100-6553515	Output Register bit
B	6x_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 word swap
W	6x	ddddd	1-65535	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.

If 4x has following information

Address	1	2	3	4	5	6	...
Data in word	0x1	0x2	0x3	0x4	0x5	0x6	
Data	0x20001		0x40003		0x60005		

For 5x, it become

Address	1	2	3	4	5	6	...
Data in word	0x2	0x1	0x4	0x3	0x6	0x5	
Data	0x10002		0x30004		0x50006		

Modbus RTU function code:

0x	0x01 Read coil	0x05 write single 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 is equivalent to 3x

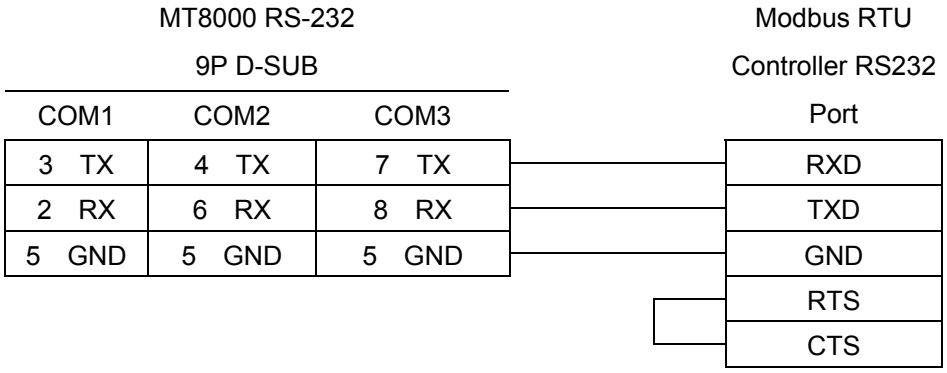
4xbit is equivalent to 4x

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



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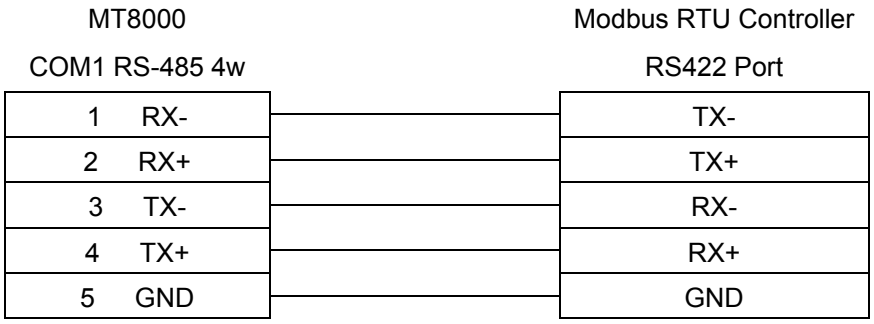
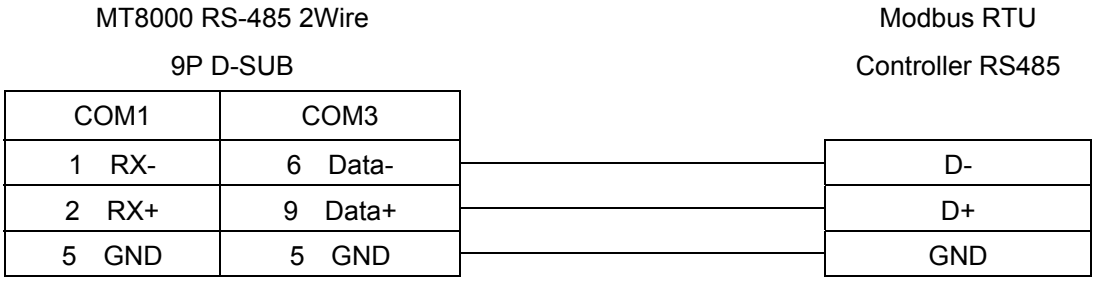
MODBUS RS422/485 PORT





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**

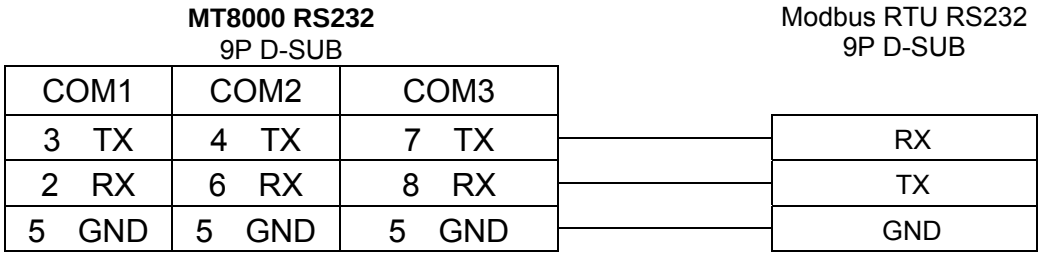
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	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

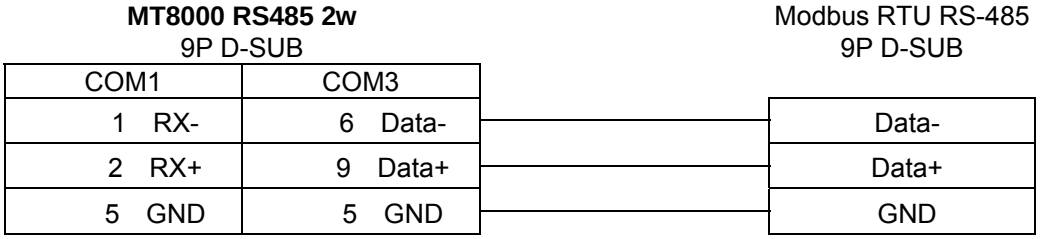
LB0 = 0x0001, LB1 = 0x0002, LW0 = 3x0001, LW1 = 3x0002
Modbus RTU Server doesn't support function Code 06(to preset single register), please use function code 16(0x10, preset multiple register).

Wiring diagram:

RS-232:



RS-485:



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

Modbus TCP/IP

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	

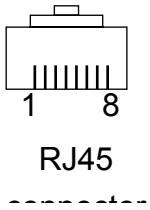
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	0x	ddddd	1-65535	Output bit
B	1x	ddddd dd	1-65535	Input bit (read only)
B	3x_bit	ddddd dd	100-6553515	Input Register bit (read only)
B	4x_bit	ddddd dd	100-6553515	Output Register bit
B	6x_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 word swap
W	6x	Ddddd	1-65535	4x single word write

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)

MT8000 Ethernet RJ45		Wire color		Modbus TCP Device 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-

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**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	0x or 1x	dddd	0~9999	%Mi
W	3x or 4x	dddd	0~9999	%MWi

Wiring diagram:

MT8000 RS-485
9P D-SUB

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

Port 1 RS485 port
8P mini-din Female

2 B(-)
1 A(+)
5 DTP
7 GND

8Pin miniDin
Female

MT8000 RS-485
9P D-SUB

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

Port2 RS485 port
3Pin Terminal

B(-)
A(+)
GND

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

Port2 RS232
9P D-SUB Female

2	RX
3	TX
5	GND

OMRON C/CQM1 Series

OMRON C, CPM, 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**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	IR	ddd(dd)	0-409515	I/O and internal Relay
B	HR	ddd(dd)	0-409515	Hold Relay
B	AR	ddd(dd)	0-409515	Auxiliary Relay
B	LR	ddd(dd)	0-409515	Link Relay
B	TC	ddd	0-519	Timer/Counter Register
W	DM	dddd	0-6659	Data register

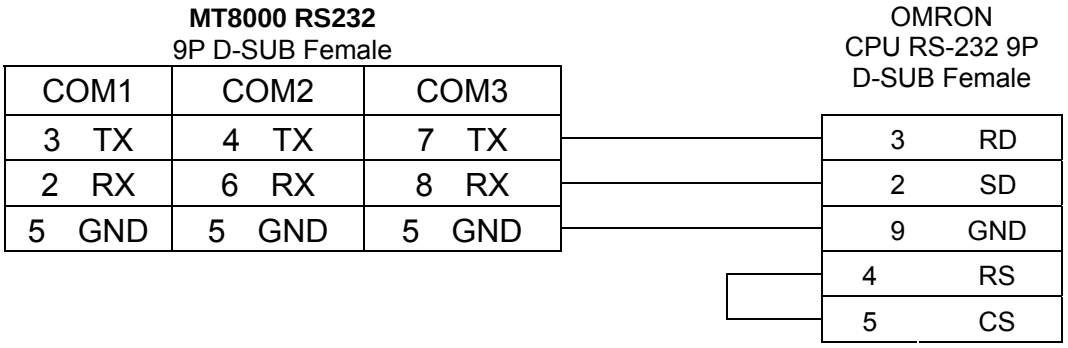
Wiring diagram:

CPU Port(CPM2A,CQM1/1H,C200H/HS/ALPHA series)

Communication Module:

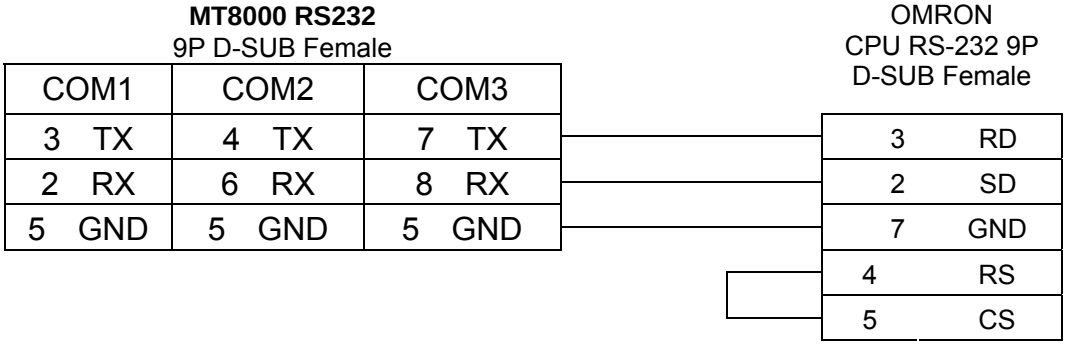
CPM1-CIF01 adapter(for CPM1/CPM1A/CPM2A series,CQM1/CQM1H series)

CPM1H-SCB41 communication module(for CQM1H-CPU51/61)



C200h-LK201,3G2A6-LK201 communication module

C200HW-COM02/03/04/05/06 communication module



OMRON CJ1/CS1

OMRON 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, 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	Extend address mode	YES
Broadcast command	NO		

PLC Setting:

Communication mode	**Host Link protocol**

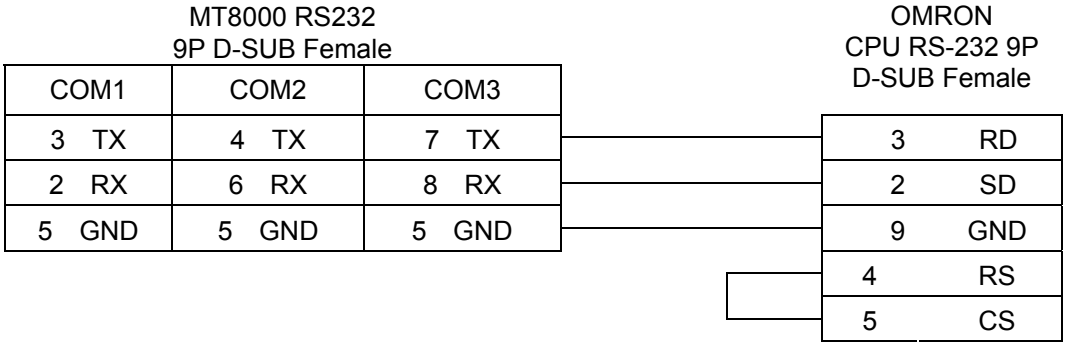
Device address:

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	H	ddd	ddd:0~511	Holding Area (HR)
Word	W	ddd	ddd:0~511	Work Area (WR)
Word	CIO	ddd	ddd:0~6143	Channel I/O (CIO)
Word	A	ddd	ddd:0~959	Auxiliary Relay (AR)

Bit/Word	Device Type	Format	Range	Memo
Word	T	ddd	ddd:0~4095	Timer (TIM)
Word	C	ddd	ddd:0~4095	Counter (CNT)
Word	EM0~EMC	dddd	dddd:0-6149	Extend Memory

Wiring diagram:

RS-232:



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**

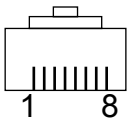
Device address:

Bit/Word	Device Type	Format	Range	Memo
Bit	D_bit	ddddd(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	dddd(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	dddd	ddd:0~4095	Timer (TIM)
Bit	C_bit	dddd	ddd:0~4095	Counter (CNT)
Word	D	ddddd	ddd:0~32767	Data Memory (DM)
Word	H	ddd	ddd:0~511	Holding Area (HR)
Word	W	ddd	ddd:0~511	Work Area (WR)
Word	CIO	dddd	ddd:0~6143	Channel I/O (CIO)
Word	A	ddd	ddd:0~959	Auxiliary Relay (AR)
Word	T	dddd	ddd:0~4095	Timer (TIM)
Word	C	dddd	ddd:0~4095	Counter (CNT)

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-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color	OMRON Ethernet 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-

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)

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	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
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

Bit/Word	Device Type	Format	Range	Memo
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-
2 RX+	9 Data+
5 GND	5 GND

OMRON E5CN

12 B
11 A
GND

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	Matsushita FP		
Com port	RS232	RS232/RS485 Ethernet	Must match the PLC's port setting.
Baud rate	9600	9600, 19200, 38400, 57600, 115200	Must match the PLC's port setting.
Parity bit	Odd	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.
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 mode	**9600,O,8,1(default)**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	dddd(h)	0~9999F	Input(X)
B	Y	dddd(h)	0~9999F	Output(Y)
B	R	dddd(h)	0~9999F	Internal Relay(R)
B	L	dddd(h)	0~9999	Link Relay(L)
B	T	ddd	0~9999	Timer(T)
B	C	ddd	0~9999	Counter(C)
W	SV	ddd	0~9999	Timer/Counter set value(SV)
W	EV	ddd	0~9999	Timer/Counter elapse value(EV)
W	DT	ddd	0~32767	Data Register(DT)

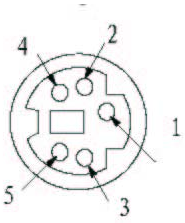
Wiring diagram:

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

FP0, FP2, FP2SH,FPM
CPU Tool port
5P mini DIN RS-232

3	RXD
2	TXD
1	GND



Mini Din 5 Pin

Female

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

FP0 CPU RS232
3P terminal

R
S
G

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

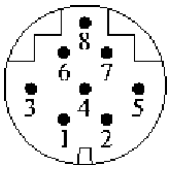
3	RXD
2	TXD
7	GND
4	RTS
5	CTS
8	CD
9	ER

MT8000
COM1[RS-485]4w
9P D-SUB

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

FP1 CPU RS422 port
Hirose 8Pin Port

2	TXDA
5	TXDB
3	RXDA
6	RXDB
1	GND

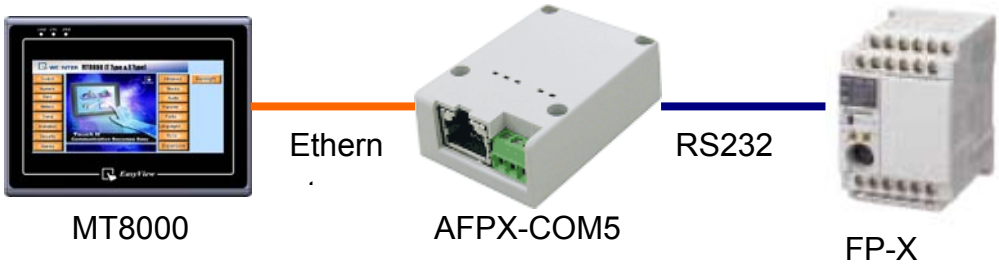


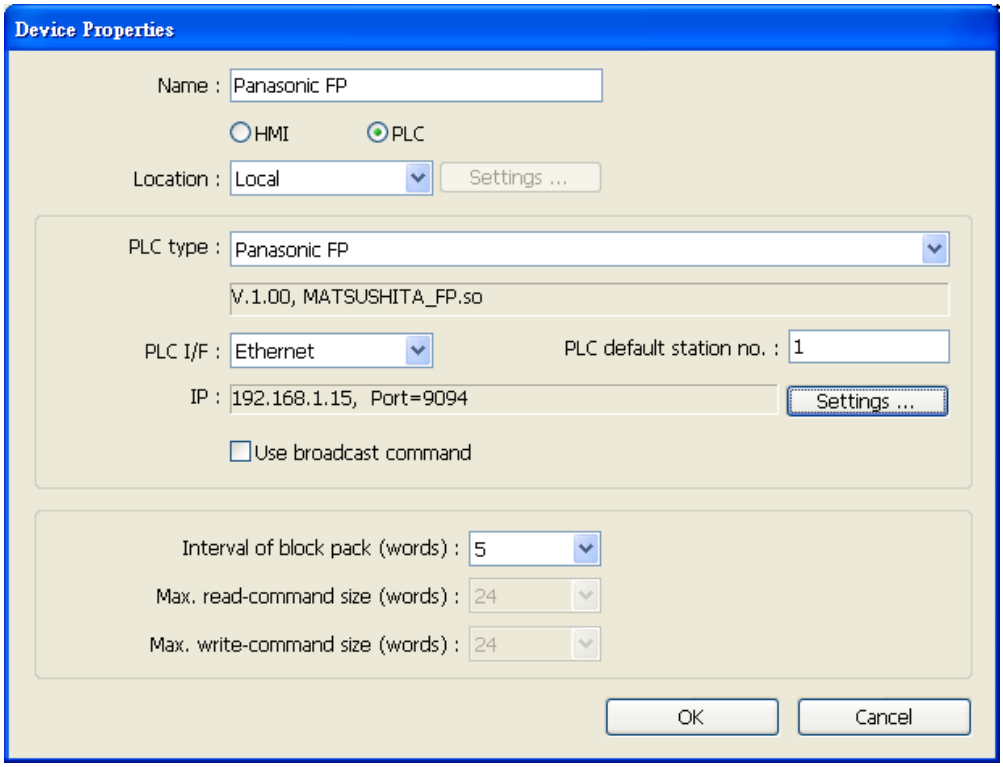
Hirose 8Pin Port

MT8000 COM1[RS-485]4w 9P D-SUB		FP3 CPU RS422 port 15P D-SUB Female	
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-

Ethernet connect

TCP port: 9094





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Parker Compax3

Parker Compax3 Servo Drive

http://www.parker.com

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, according to the PLC's setting.

Device address:

Bit/Word	Device Type	Format	Range	Memo
Double Word	Register_Int	DDD(dd)	0-9999(99)	Integer register
Double Word	Register_Float	DDD(dd)	0-9999(99)	Floating point register

Note: D (Decimal).

About device address range details, please refer to the PLC manual.

Example: read/write address:1901.2, please input 190101.

read/write address: 400.1, please input 40001.

When select the Register_Float, be sure set data format to 32 bit float, or it will ignore the read/write of point.

Wiring diagram:

RS232:

EasyView MT8000

RS232 9P D-SUB

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

Parker Compax3 PLC

X10 9P D-SUB

2 RXD
3 TXD
5 GND

RS485:

EasyView MT8000
RS-485 2w D-SUB

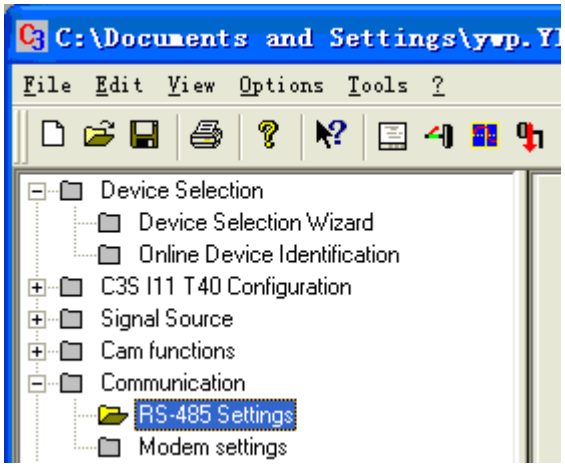
COM1[485]	COM3[485]
1 RX-	6 Data-
2 RX+	9 Data+
5 GND	5 GND

Parkar Compax3 PLC
X10 9P D-SUB

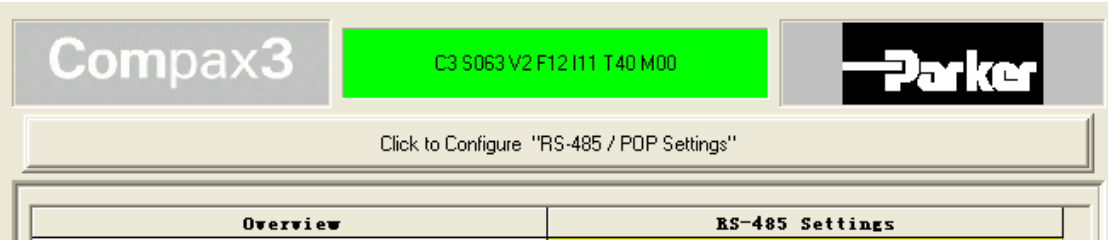
3 RXD
7 TXD
5 GND
1 Enable RS485
9 +5V

How to setting Compax 3 servo to RS485 mode?

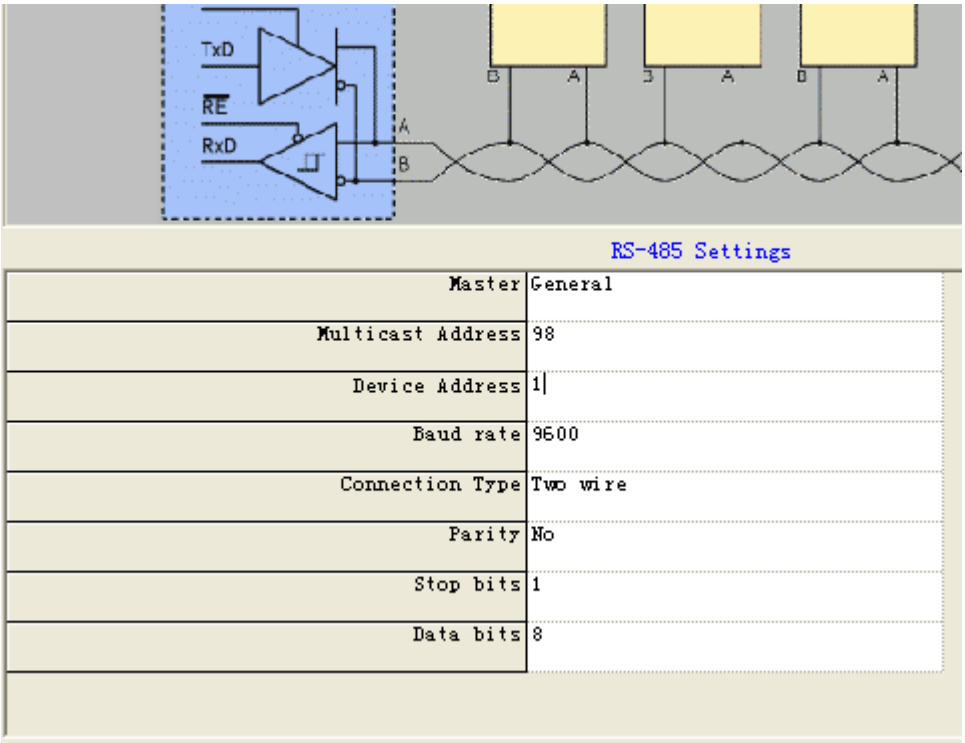
1. Open C3 ServoManager2, select “Communication”=> “RS-485 Settings”.



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 .

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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 mode	SAIA PCD PGU mode	PDS driver
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:

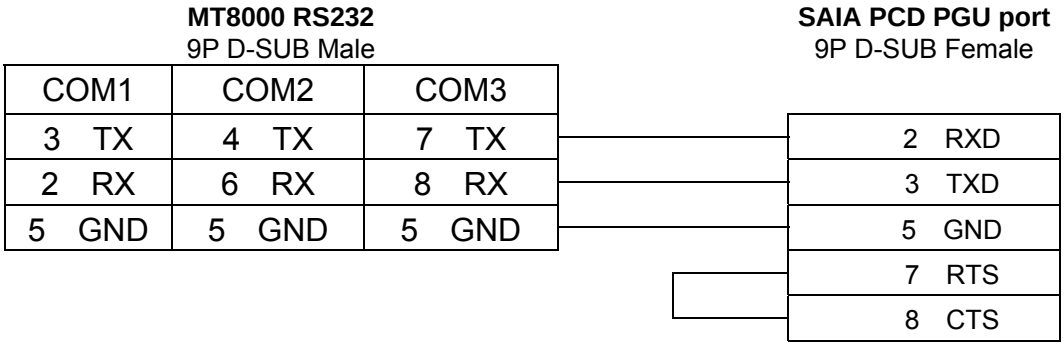
Communication mode	**9600,N,8,1(default)**
RS232	**Port 0-Type:RS232**
RS485 2W	**S-BUS Mode:Data(S2),Port 1-Type:RS485**

Device address:

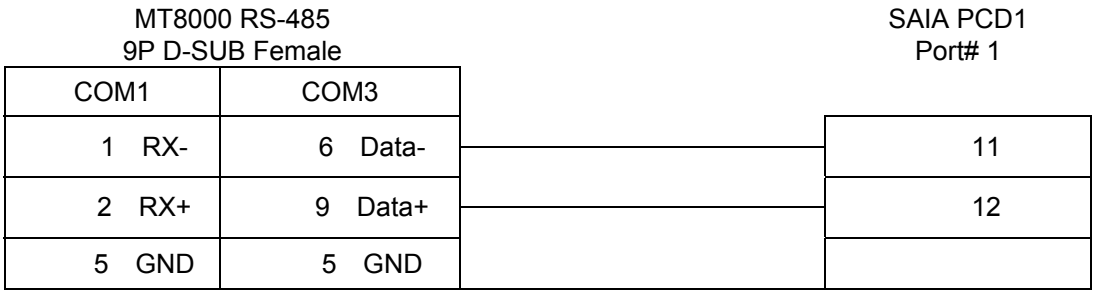
Bit/Word	Device Type	Format	Range	Memo
B	Flag	ddd	ddd=0~8191	
B	Input	ddd	ddd=0~511	
B	Output	ddd	ddd=0~511	
D	Register	ddd	ddd=0~4095	
D	Counter	ddd	ddd=0~1599	
D	Timer	ddd	ddd=0~450	
D	Reg_Float	ddd	ddd=0~4095	support single float point

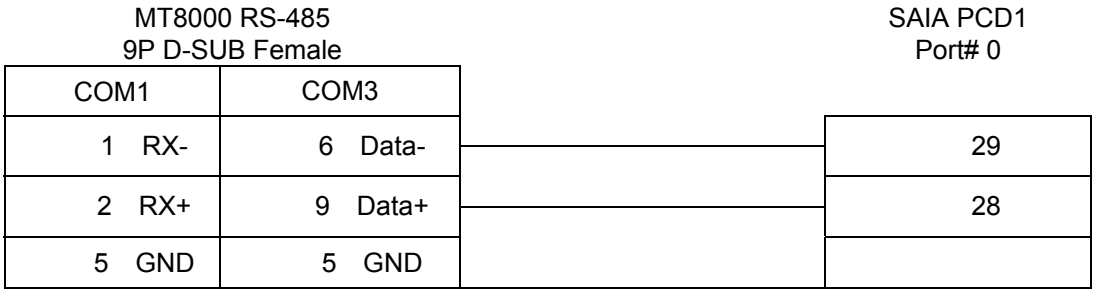
Wiring diagram:

RS232:



RS485:





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:

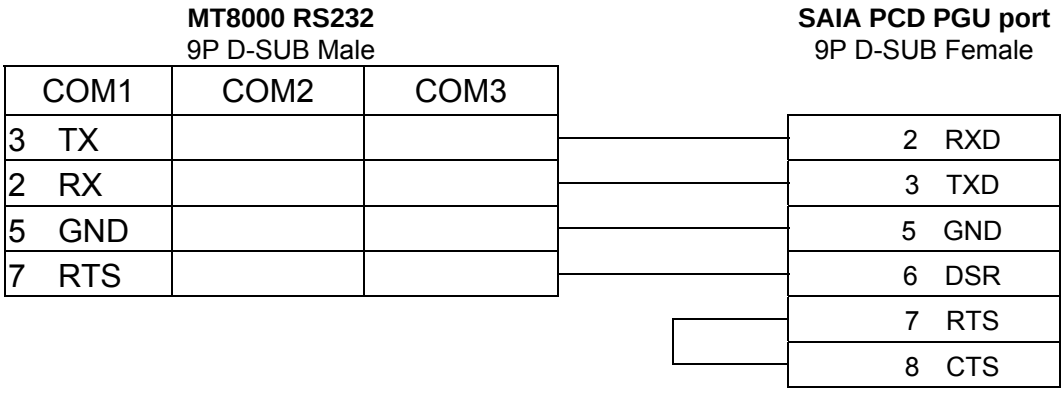
Communication mode	**9600,E,7,1(default)**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	Flag	ddd	ddd=0~8191	
B	Input	ddd	ddd=0~511	
B	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:



6 DSR(Of PGU Port):PGU connected

SEW Eurodrive MOVITRAC

SEW Eurodrive series, model MOVITRAC-07 inverter
http://sg.sew-eurodrive.com/

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	SEW Eurodrive MOVITRAC		
Com port	RS-485		
PLC Station No.	0	0~255	
Baud rate	9600		
Data bit	8		
Parity bit	Even		
Stop bit	1		

Device address:

Bit/Word	Device Type	Format	Range	Memo
W	INDEX	SSSAAAAA	S(000~255) A(08000~25000)	S: Sub index A: Index

- The MOVITRAC-07 doesn't support Sub index（other series maybe support）, please fixed to input 000.
- When input S and A, the correct format example as follow：Sub index 15, Index 8359, Format is 01508359

Wiring diagram:

EasyView MT8000
RS-485 2W (COM 1)

MOVITRAC-07
RS-485

Pin 1 (D－) ⟶ Green
Pin 2 (D＋) ⟶ Red

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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	RS485	
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	0-255	
PLC Station No.	2	0-255	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:

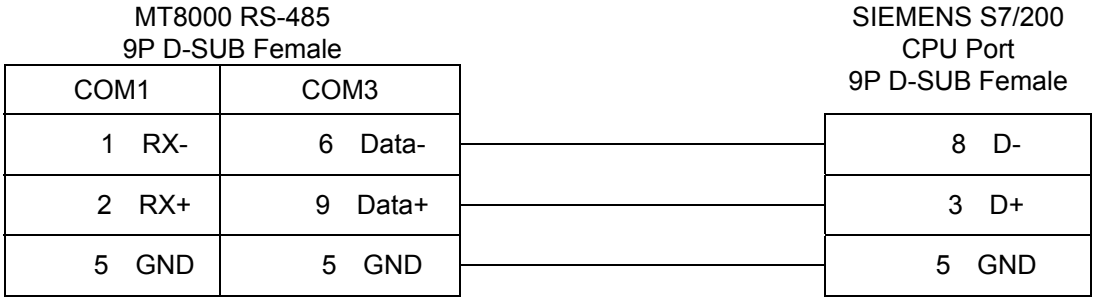
Communication mode	**Set station number as 2**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	VW.Bit	ddddd(o)	0-102397	V Memory bit address
W	VW	ddddd	0-10238	V memory
DW	VD	ddddd	0-10236	V memory double word

* Double word and Floating point value must use VD device type.

Wiring diagram:



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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	9600~115200	Must same as the PLC setting
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:

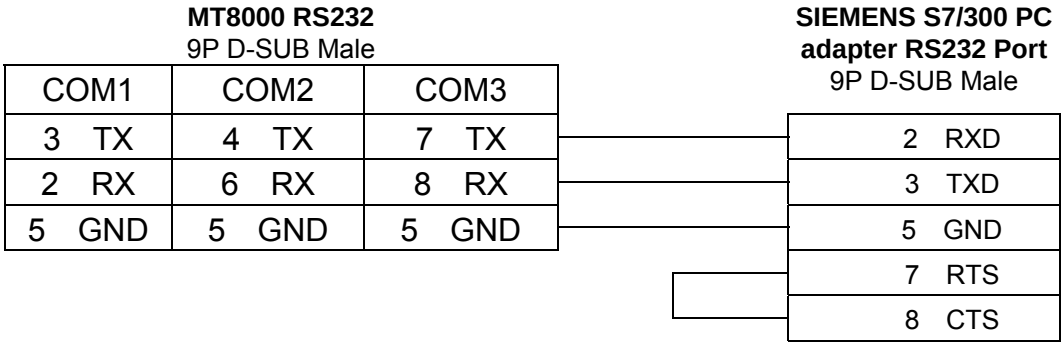
Communication mode	

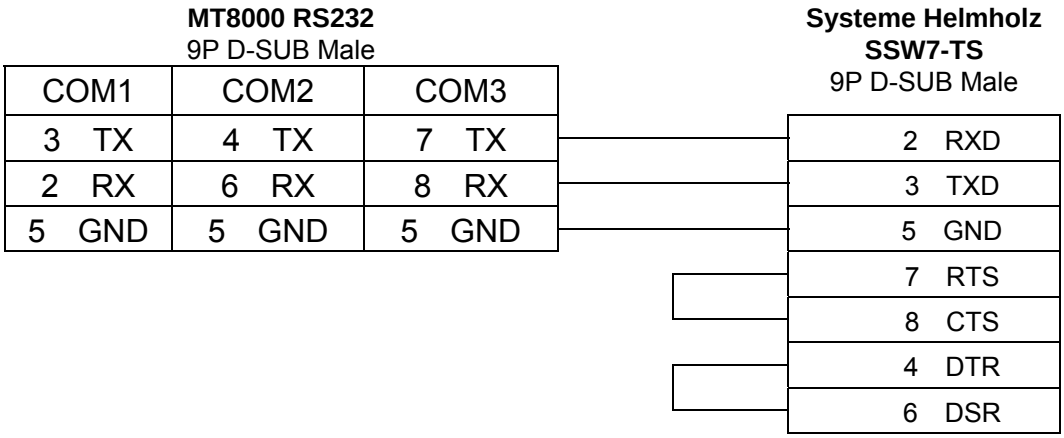
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	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	dddddd	000000-998192	Data register(must be even)
DW	DBDn	ffdddd	ff:0-99, dddd:0-8192	Data register double word

* Double word and Floating point value must use DBDn device type.

Wiring diagram:





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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 (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.	1	0-31	Must match the PLC's port setting.

Device address:

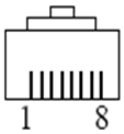
Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	VW.Bit	ddddd(o)	0-102397	V Memory bit address
W	VW	ddddd	0-10238	V memory
DW	VD	ddddd	0-10236	V memory double word

- Double word and Floating point value must use VD device type.

Wiring diagram:

MT8000 Ethernet RJ45 Wire color **Ethernet Hub or Switch RJ45**

1 TX+	White/Oran		1	RX+
2 TX-	Orange		2	RX-
3 RX+	White/Gree		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-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color		Ethernet Device 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-

SIEMENS S7/300 Ethernet

Siemens S7/300 Ethernet Series PLC

http://www.ad.siemens.com

HMI Setting:

Parameters	Recommend	Option	Notes
PLC type	Siemens S7/300 (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.	1	0-31	Must match the PLC's port setting.

Device address:

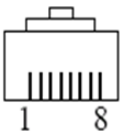
Bit/Word	Device Type	Format	Range	Memo
B	I	dddd(o)	0-40957	Input (I)
B	Q	dddd(o)	0-40957	Output (O)
B	M	dddd(o)	0-40957	Bit Memory
B	DB0Bit-DB99Bit	dddd(o)	0-81927	Data register bit
W	DB0-DB99	dddd	0-8192	Data register(must be even)
W	IW	dddd	0-4095	Input (I)
W	QW	dddd	0-4095	Output (O)
W	MW	dddd	0-4095	Bit Memory
W	DBn	dddddd	000000-998192	Data register(must be even)
DW	DBDn	ffdddd	ff:0-99, dddd:0-8192	Data register double word

* Double word and Floating point value must use DBDn device type.

Wiring diagram:

MT8000 Ethernet RJ45 Wire color **Ethernet Hub or Switch RJ45**

1	TX+	White/Oran	1	RX+
2	TX-	Orange	2	RX-
3	RX+	White/Gree	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-



RJ45 connector

Ethernet: Direct connect (crossover cable)

MT8000 Ethernet RJ45		Wire color		Ethernet Device 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-

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	4-7	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**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	S	ddd	0-32767	Internal relay
B	M	ddd	0-32767	Auxiliary relay
B	MW.B	ddd(dd)	0-999915	Data register bit
W	MW	ddd	0-9999	Data register

Wiring diagram:

TSX37-XX/TSX07-XX CPU

MT8000 RS-485
9P D-SUB

COM1	COM3		TSX series CPU port 8P mini-din Female
1 RX-	6 Data-	———	2 D-
2 RX+	9 Data+	———	1 D+
5 GND	5 GND	———	7 GND

8Pin miniDin
Female

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**

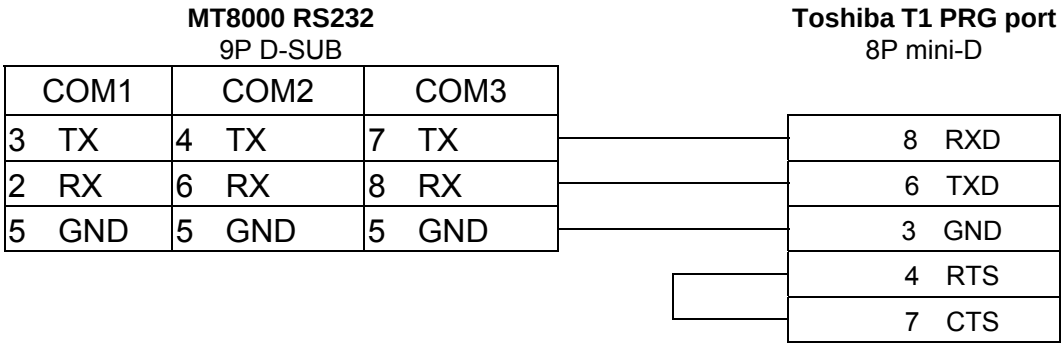
Device address:

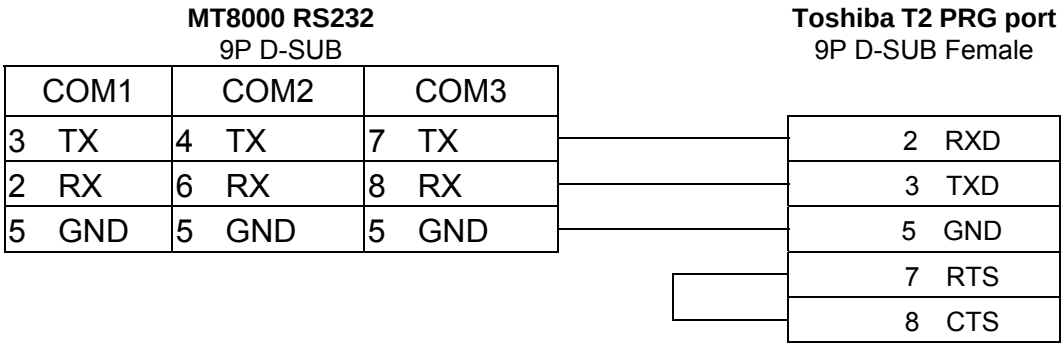
Bit/Word	Device Type	Format	Range	Memo
B	X	ddd(h)	0-9999f	Input Bit
B	Y	ddd(h)	0-9999f	Output Bit
B	R	ddd(h)	0-9999f	Auxiliary Bit
B	S	ddd(h)	0-9999f	Special Bit
W	T	ddd	0-9999	Timer Register
W	C	ddd	0-9999	Counter Register
W	D	ddd	0-9999	Data Memory
W	SW	ddd	0-9999	Special Register

Bit/Word	Device Type	Format	Range	Memo
W	XW	ddd	0-9999	Input Register
W	YW	ddd	0-9999	Output Register
W	RW	ddd	0-9999	Auxiliary Register

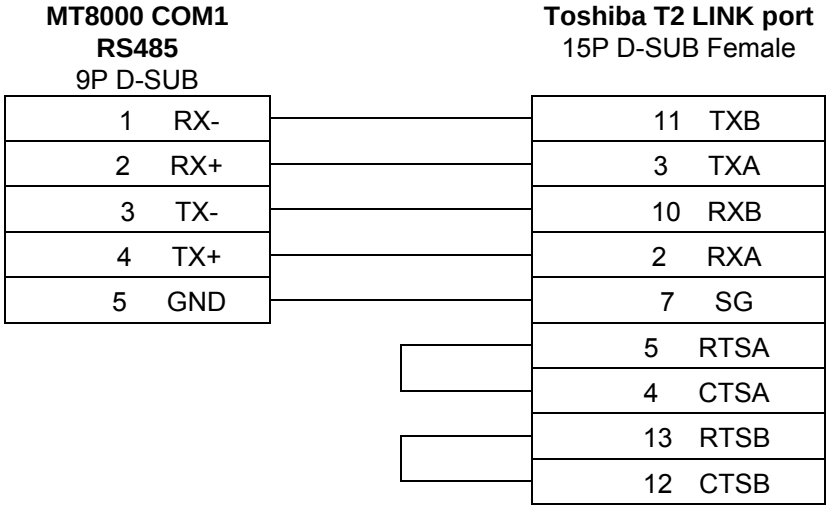
Wiring diagram:

RS232





RS485



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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

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
B	Y_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
B	R_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
B	L_Bit	hhh(h)	0-fff(f)	(h) : Bit no.(0~f)
W	V	hhh	0-fff	
W	P	hhh	0-fff	
W	D	hhh	0-fff	
W	R	hhh	0-fff	
W	L	hhh	0-fff	

Wiring diagram:

RS232

MT8000 HMI

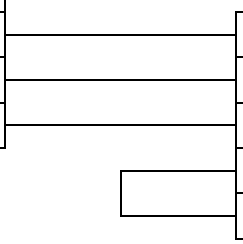
RS232 9P D-SUB

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

TC mini series

9P D-SUB

3 RXD
2 TXD
5 GND
7 RTS
9 CTS



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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**

Device address:

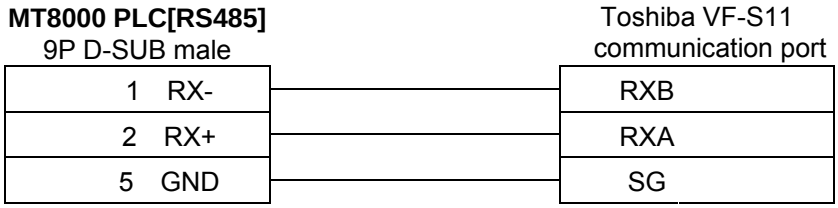
Bit/Word	Device Type	Format	Range	Memo
Word	Communication No.	HHH	HHH:0~ 0FFF	Parameters and data memory
Bit	Comm.No.Bit	HHH(DD)	HHH(DD):0-FFF(15)	

Wiring diagram:

Pay Attention:

Before you connect the VF-A11, Make sure you have put two switch on of sw1.(SW1: Wiring method selector switch)

RS-485



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:

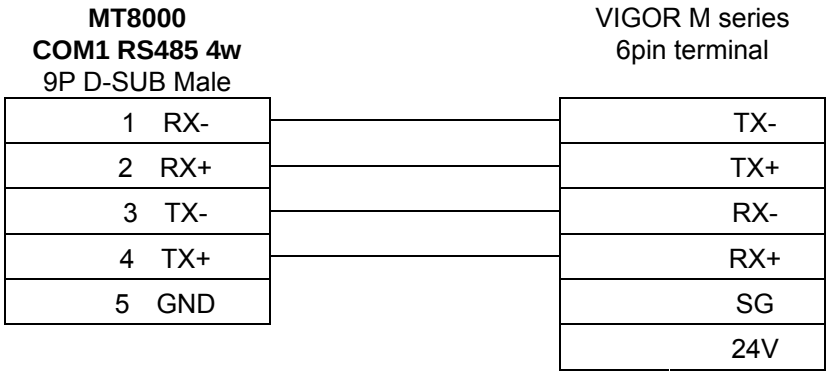
Communication mode	None

Device address:

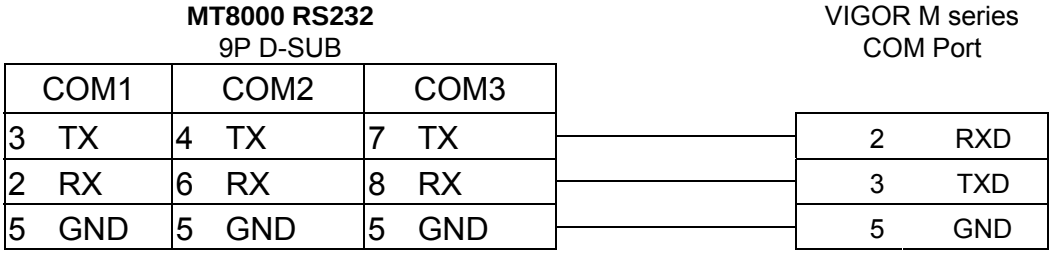
Bit/Word	Device Type	Format	Range	Memo
B	X	ooo	0~177	
B	Y	ooo	0~177	
B	M	dddd	0~4095	
B	S	ddd	0~999	
B	T	ddd	0~255	
B	C	ddd	0~255	
W	TV	ddd	0~255	
W	CV	ddd	0~255	
W	D	dddd	0~4095	
W	DL	dddd	0~4095	Double word

Wiring diagram:

RS-485 4wire:



RS-232:



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Yokogawa FA-M3

FA-M3 CPU SP35-5N, SP55-5N CPU port, F3LC11 Computer Link module.
http://www.yokogawa.com/itc/itc-index-en.htm

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**

Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd	201-71664(discontinuous)	
B	Y	ddd	201-71664(discontinuous)	
B	I	ddd	1-16384	
B	L	ddd	1-71024(discontinuous)	
B	M	ddd	1-9984	
W	D	ddd	1-8192	
W	B	ddd	1-32768	
W	V	ddd	1-64	
W	W	ddd	1-71024(discontinuous)	
W	Z	ddd	1-512	

Wiring diagram:

RS-232: CPU port

MT8000 RS232
9P D-SUB

CPU port cable
KM11 RS-232

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

3	RXD
2	TXD
5	GND

RS-232: LC11

MT8000 RS232
9P D-SUB Female

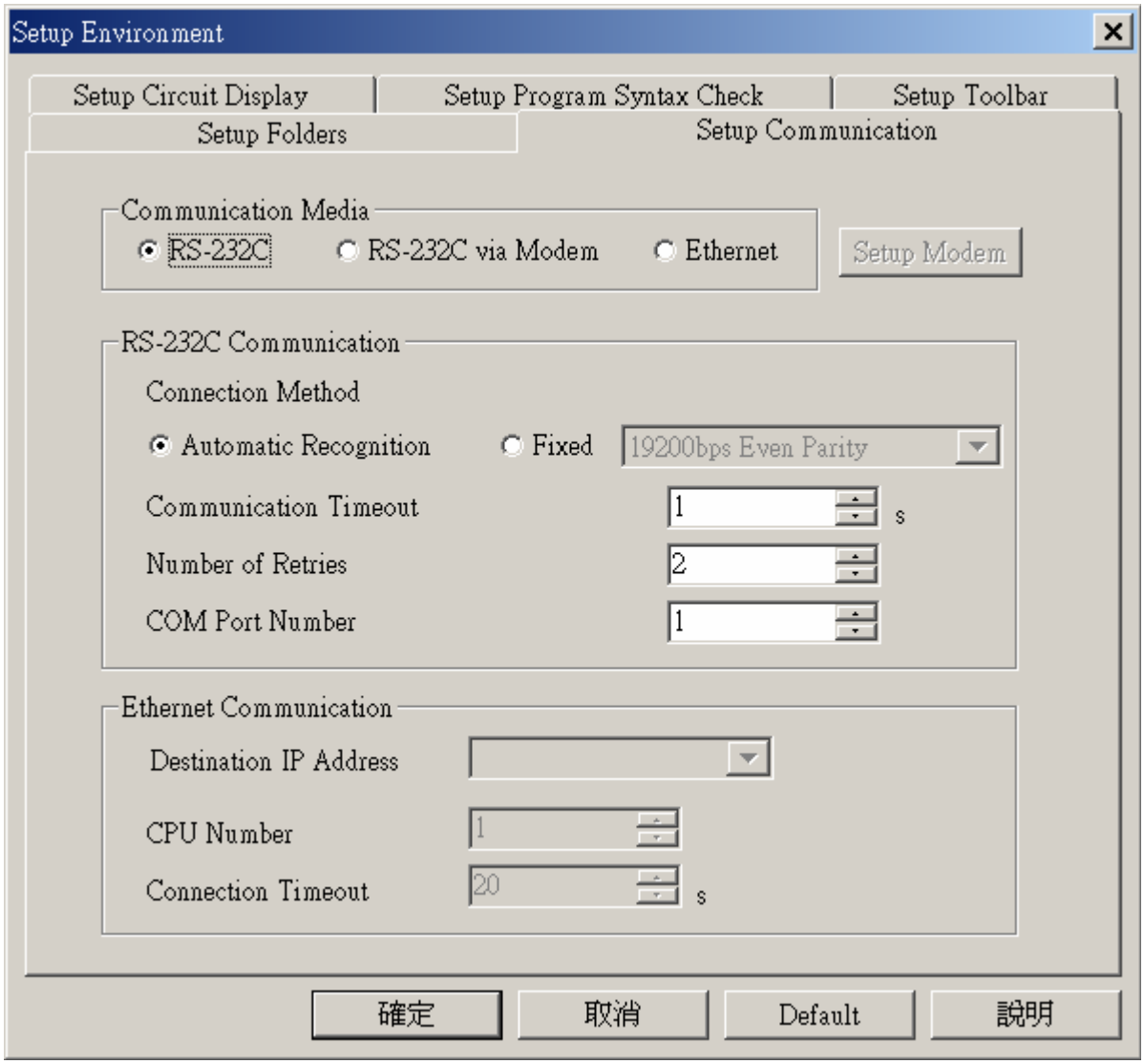
LC11 Computer
Link module RS232
Port

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

2	RXD
3	TXD
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 alse can select the Fixed mode ,It will connect the PLC quickly.



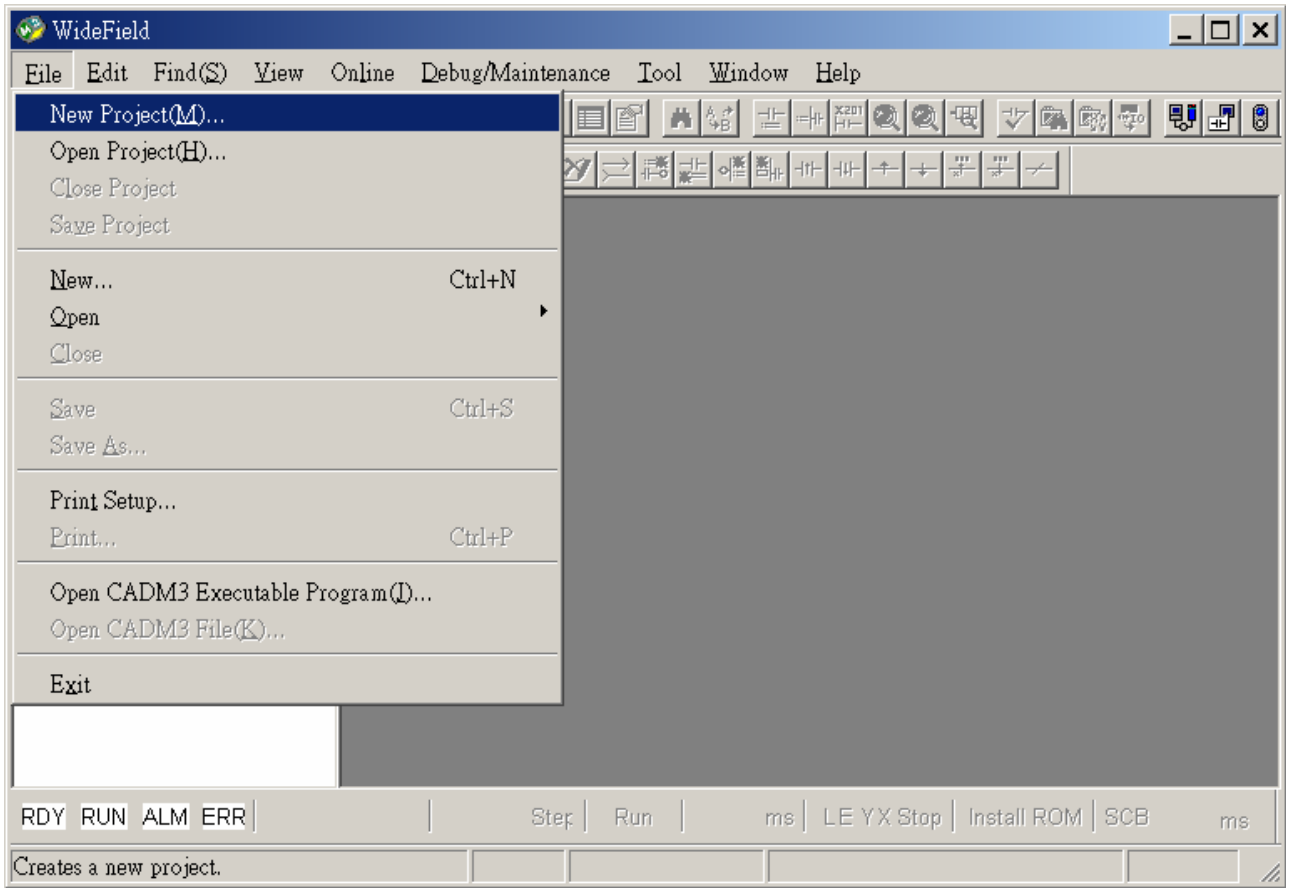
P.S Because use Personal computer link, when you connecting to PLC it will delay about 20sec for test communication.

How to Setting YOKOGAWA PLC Communcation configuration.

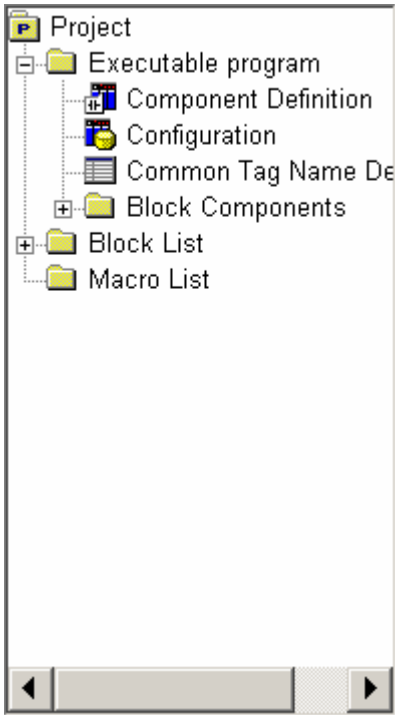
YOKOGAWA FA-M3

CPU SP55-5N (same SP35-5N)

[File]->[New Project] to create a new project



click “Configuration” for setup communication.



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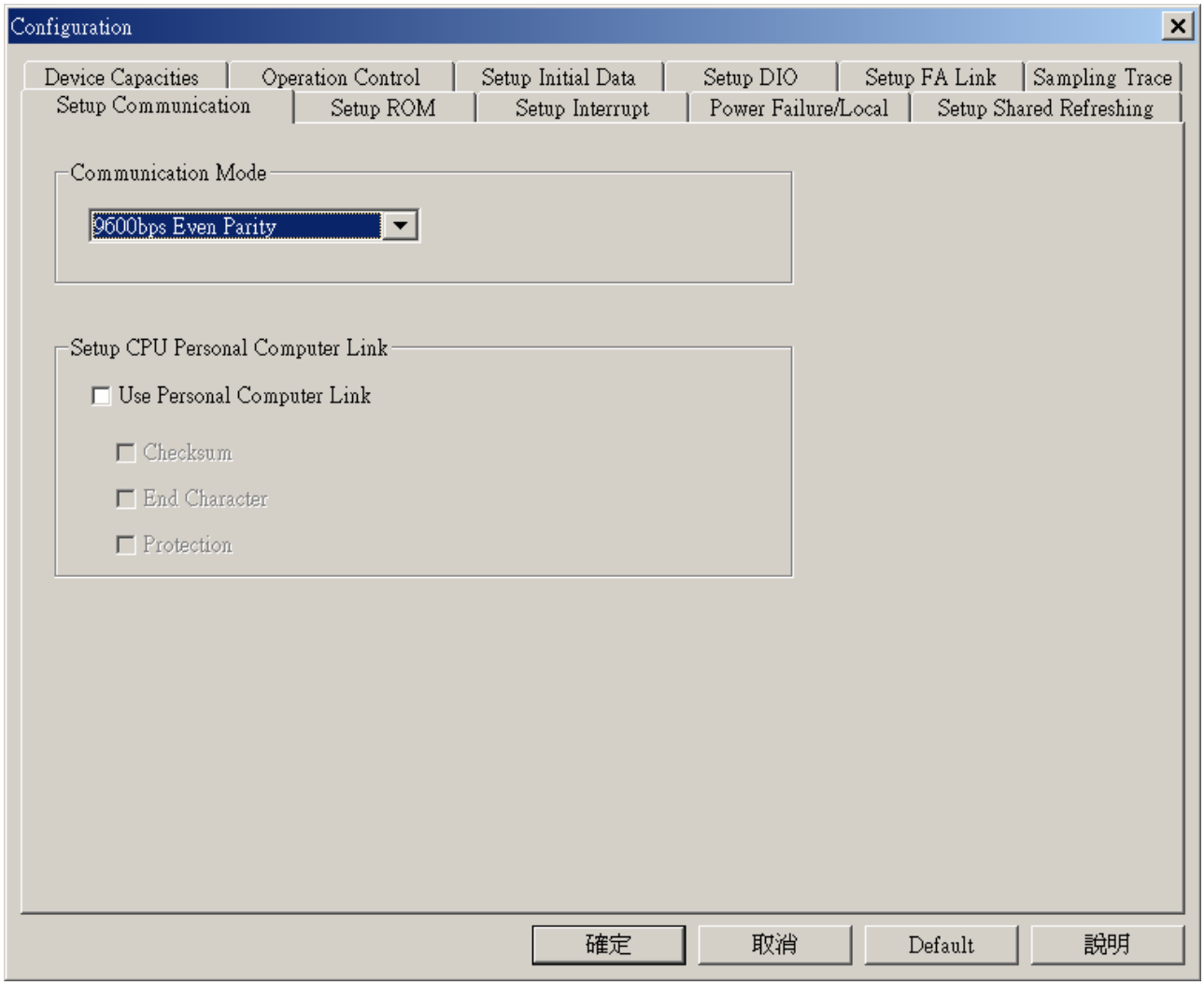
Configuration
Device Capacities
Operation Control
Setup Initial Data
Setup DIO
Setup FA Link
Sampling Trace
Setup Communication
Setup ROM
Setup Interrupt
Power Failure/Local
Setup Shared Refreshing
Communication Mode
9600bps Even Parity
Setup CPU Personal Computer Link
Use Personal Computer Link
Checksum
End Character
Protection
確定
取消
Default
說明

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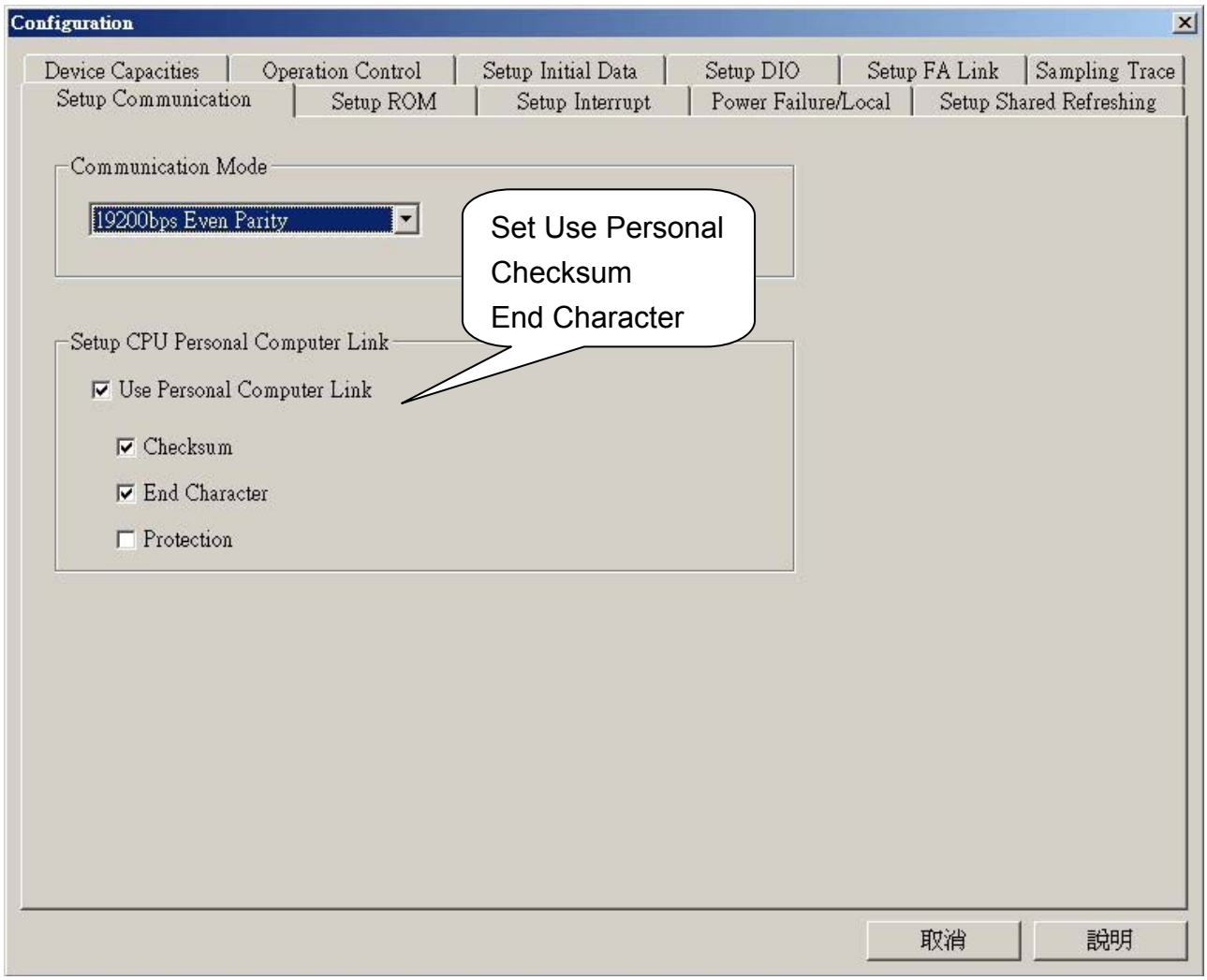
Configuration
Device Capacities
Operation Control
Setup Initial Data
Setup DIO
Setup FA Link
Sampling Trace
Setup Communication
Setup ROM
Setup Interrupt
Power Failure/Local
Setup Shared Refreshing
Communication Mode
19200bps Even Parity
Set Use Personal
Checksum
End Character
Setup CPU Personal Computer Link
Use Personal Computer Link
Checksum
End Character
Protection
取消
說明

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Yokogawa FA-M3 (Ethernet)

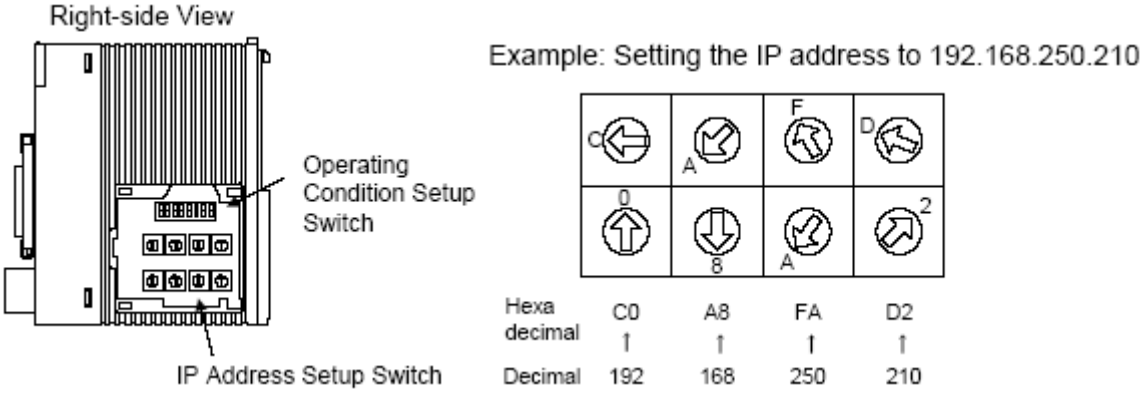
FA-M3 CPU SP35-5N, SP55-5N with F3LE01-5T/F3LE11-0T Ethernet module.
http://www.yokogawa.com/itc/itc-index-en.htm

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:

Communication mode	**Set IP Address** **Set all condition setup switch OFF.**



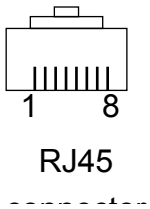
Device address:

Bit/Word	Device Type	Format	Range	Memo
B	X	ddd	201-71664(discontinuous)	
B	Y	ddd	201-71664(discontinuous)	
B	I	ddd	1-16384	
B	L	ddd	1-71024(discontinuous)	
B	M	ddd	1-9984	
W	D	ddd	1-8192	
W	B	ddd	1-32768	
W	V	ddd	1-64	
W	W	ddd	1-71024(discontinuous)	
W	Z	ddd	1-512	

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)

MT8000 Ethernet RJ45		Wire color	FA-M3 Ethernet module 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-